

**2021 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT GORGAS
ASH POND**

January 31, 2022

Prepared for

Alabama Power Company
Birmingham, Alabama


By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This *2021 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.

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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), 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 2021 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2021 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 Semi-Annual Progress Reports have historically been provided to the Department in March and September. On March 15, 2021, in an effort to streamline reporting cycles and provide a single set of comprehensive semi-annual reports to ADEM, APC requested approval to re-locate the discussion of delineation results routinely provided in Semi-Annual Progress Reports to Semi-Annual Groundwater Monitoring and Corrective Action Reports. ADEM approved this approach and revised timeline for submittals on March 16, 2021. With the Department's approval, APC will now provide the Department with the combined semi-annual reports in January and July of each year.

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 16, 2021. Subsequently, within 90 days of remedy selection, a Corrective Action Groundwater Monitoring Program presenting the groundwater corrective action remedies to be implemented at the Site will be submitted to ADEM.

SSL of Appendix IV parameters arsenic, lithium, and molybdenum were detected above GWPS during the first and second semiannual monitoring events. The following summarizes results and activities conducted in 2021:

- Conducted the first semi-annual assessment monitoring event between February 1 and February 15, 2021.
- 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.
- Submitted a Groundwater Monitoring Well Installation and Abandonment Plan for ADEM approval on April 2, 2021, which was subsequently approved on June 22, 2021.
- Commenced with the installation of replacement wells and abandonment of existing wells as outlined in the approved Groundwater Monitoring Well Installation and Abandonment Plan. These activities were not completed at the time of publication and will likely complete near the end of August 2021.
- Submitted the Semi-Annual Remedy Selection and Design Progress Report on June 8, 2021.
- Continued the evaluation of monitored natural attenuation (MNA) and geochemical manipulation as potential groundwater remediation technologies for the Site as described in the Semi-Annual Remedy Selection and Design Progress Reports submitted in June 2021 in accordance with § 257.97(a) and the ADEM Admin. Code r. 335-13-15-.06(8)(a).
- Submitted the First Semi-Annual Groundwater Monitoring and Corrective Action Report on July 31, 2021.

- Conducted the second semi-annual assessment monitoring event between July 26 and August 13, 2021.
- Completed the installation of additional Site monitoring wells, including: 14 new or replacement compliance wells and 5 new or replacement delineation wells (see **Table 1a** and **1b** or **Appendix A**). Completed the abandonment of 5 monitoring wells (see **Appendix A**).
- Completed Site-wide groundwater elevation reading event with all historic and new monitoring wells in December.
- Submitted the Remedy Selection Report in December 2021.
- Pursuant to 40 CFR 257.90(e)(6), **Executive Summary Table – Monitoring Period Summary**, describes the status of groundwater monitoring and corrective action during the monitoring period for this report.

The CCR unit concluded the monitoring period in assessment monitoring and APC will begin implementing the selected groundwater remedies identified in the Groundwater Remedy Selection Report submitted to ADEM in December 2021. The following monitoring-related activities are planned for the CCR unit:

- Completed and submit a Corrective Action Groundwater Monitoring Program document presenting the groundwater corrective action remedies to be implemented.
- Evaluate and plan for remedy implementation, which may include: the collection of additional data, technical research, and development of pilot programs for the remediation of arsenic, lithium, and molybdenum.
- Conduct the first semi-annual assessment monitoring event in the first half of 2022 and submit the semi-annual groundwater monitoring report summarizing the findings to ADEM by July 31, 2022.
- Evaluate boron isotopic analyses in conjunction with other geochemical data to expand existing Alternate Source Demonstration for lithium.

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 - December 31, 2021
 Beginning Status: Assessment
 Ending Status: Assessment

Statistical Analysis Results *

Appendix III SSIs

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

Appendix IV SSLs

Parameter	Wells
Arsenic	GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-15V
Lithium	GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-15, 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: Yes
 Selection Date: December 17, 2021
 Initiated During Period: No
 Ongoing During Period: No

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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 2021 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2021 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).

On March 15, 2021, in an effort to streamline reporting cycles and provide a single set of comprehensive semi-annual reports to ADEM, APC requested approval to re-locate the discussion of delineation results routinely provided in Semi-Annual Progress Reports to Semi-Annual Groundwater Monitoring and Corrective Action Reports. The Semi-Annual Progress Reports have historically been provided to the Department in March and September and covers content described in Part E of Administrative Order No. 18-096-GW. ADEM approved this approach and revised timeline for submittals on March 16, 2021. Semi-Annual Groundwater Monitoring and Corrective Action Reports will now include an update on groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018) and will continue until released in writing by ADEM.

2.0 MONITORING PROGRAM STATUS

The site is currently in assessment monitoring and is evaluating groundwater corrective action alternatives. In accordance with § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at the 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 16, 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 will be developed and submitted to ADEM for review.

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.

3.0 SITE LOCATION AND DESCRIPTION

The Alabama Power Company (APC) William Crawford Gorgas Electric Generating Plant (Plant Gorgas) is located 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).

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.

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.

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° 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 7×10^{-7} cm/sec to a high of 4×10^{-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.

Modifications to well networks at the Site occurred in between the first and second semi-annual sampling events 1 and 2 during 2021. These modifications have been included in the draft/approved groundwater monitoring plan for the Site. The location and designation of Site wells are presented on a series of monitoring well location maps: **Figure 5A, Monitoring Well Location Map (First Semi-Annual Monitoring Event)** and **Figure 5B, Second Semi-Annual Monitoring Event 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).

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.

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. These wells have been surveyed and developed and are planned to be sampled initially during the first semi-annual sampling event of 2022. Except for GS-AP-MW-11R, new wells are not shown on **Figure 5A** or **5B**. However, these wells are shown on potentiometric surface maps presented in **Appendix E**.

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 5A** and **Figure 5B**. **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. New wells are not shown on **Figure 5A** or **5B**. However, these wells are shown on potentiometric surface maps presented in **Appendix E**.

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*). Piezometer locations are presented on **Figure 5A** and **Figure 5B**.

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. 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**.

Appendix A, Monitoring Well Installation Report provides locations, dates, boring and construction logs for wells installed during 2021. This report also contains separate details on well abandonment activities that occurred during 2021. **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 5A, Figure 5B**) 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 B, 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 C, 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 D, 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 D**.

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 D**.

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 preceding year. Semi-annual Assessment Monitoring sampling events occurred in February 2021 and July-August 2021.

The first semi-annual assessment monitoring event 1 took place between February 1, 2021 and February 26, 2021. A groundwater monitoring report summarizing data and activities from the first semi-annual sampling event was submitted to the Department in July 2021. The second semi-annual assessment monitoring event took place between July 26, 2021 and August 13, 2021.

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during each Assessment Monitoring event. All groundwater sampling activities were conducted by APC Field and Water Services. Pace Analytical Services performed the laboratory analyses of Radium-226 and Radium-228 (reported combined). APCEL performed the remaining Appendix III and Appendix IV analyses. Analytical data from the groundwater monitoring events is included as **Appendix D** 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 117.24 to 534.83 ft MSL. feet NAVD88 (feet above reference 1988 North American Vertical Datum). **Figure 6A, Potentiometric Surface Contour Map (February 1, 2021) – Water Table, Figure 6B, Potentiometric Surface Contour Map (February 1, 2021) - Pratt Aquifer, and Figure 6C, Potentiometric Surface Contour Map (February 1, 2021) - American Aquifer** depict groundwater elevations and inferred groundwater flow direction during the first 2021 semi-annual sampling event.

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.

During the second semi-annual sampling event, groundwater elevations ranged from 122.43 to 534.83 ft MSL. feet NAVD88 (feet above reference 1988 North American Vertical Datum). **Figure 7A, Potentiometric Surface Contour Map (July 26, 2021) – Water Table, Figure 7B, Potentiometric Surface Contour Map (July 26, 2021) - Pratt Aquifer, and Figure 7C, Potentiometric Surface Contour Map (July 26, 2021) - American Aquifer** depict groundwater elevations and inferred groundwater flow direction during the first 2021 semi-annual sampling event.

Figure 6A and 7A 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 and 7B** shows radial groundwater flow away from the Ash Pond in the Pratt Coal flow system. **Figure 6C and 7C** shows groundwater flow away from the Ash Pond in the deeper American Coal seam flow system. A third set of potentiometric surfaces is presented in **Appendix E, December 2021 Water Level Monitoring Data**. This set represents the first comprehensive set of data and potentiometric surface contour maps combining historic wells and piezometers with the most recent replacement and additional wells installed during the Fall of 2021. Recent groundwater elevation data have been tabulated and included in **Table 3, Recent Groundwater Elevation Summary**. All historical available groundwater elevation data recorded since 2016 have been tabulated and included in **Appendix C**.

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 1.19×10^{-3} cm/sec and 1.22×10^{-5} cm/sec with an average of 4.52×10^{-4} cm/sec. A total of 43 packer tests resulted in a range of hydraulic conductivity (k) values from an estimated low of 7×10^{-7} cm/sec to a high of 4×10^{-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) were 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 (RPD) 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. Two RPD failures noted for the second semi-annual monitoring event of 2021. **Table 4A, Relative Percent Difference Calculations**, provides the RPD for sample and sample duplicates during the second semi-annual monitoring event of 2021. Arsenic and TDS in well GS-AP-MW-24H are qualified as non-detect as result of this validation.

RPD calculations for the first semi-annual event are in **Appendix E, Lab Data Validation – First Semi-Annual Monitoring Event**.

Analytical data reviewed provided low-level or trace detections in field and or equipment blanks during monitoring period sampling events. **Table 4B, Field QC: Blank Detections** provides a summary of low-level detections observed during the second 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.

Table 4C, Field QC: Validation Results (Blanks) provides a summarized list of data validation flags that could be applied to site data during the second semi-annual monitoring period.

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 2021 semi-annual monitoring events were 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 F, 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 F**. As discussed in **Sections 3.3.1.1 and 5.3**, Site GWPS were updated during the second semi-annual monitoring period and included analytical data from upgradient well GS-AP-MW-17V which was recently permitted as an upgradient well. As a result, the GWPS for lithium has increased from 0.04 to 0.0809 mg/L and a reduction of exceedances is noted between semi-annual monitoring events 1 and 2.

The following subsections describe statistical exceedances during the semi-annual monitoring events of 2021.

5.3.2.1 First Semi-Annual Groundwater Monitoring Event

The statistical results presented in this section include a GWPS of 0.04 mg/L for lithium. During the first semi-annual monitoring event, statistical analysis of Appendix IV data identified the following SSLs in downgradient wells:

- GS-AP-MW-2: Lithium.
- GS-AP-MW-6D: Arsenic, Lithium.
- GS-AP-MW-7: Arsenic, Lithium, Molybdenum.
- GS-AP-MW-15: Lithium.
- GS-AP-MW-17: Lithium.
- GS-AP-MW-18: Lithium.
- GS-AP-MW-21: Lithium.

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 F**.

Limited groundwater analytical data are available for delineation wells installed at the site; therefore, groundwater quality is simply compared to the GWPS. A review of analytical data derived from delineation wells identified the following GWPS Exceedances for the first 2021 semi-annual sampling event:

- GS-AP-MW-6V: Fluoride, Lithium
- GS-AP-MW-15V: Arsenic, Lithium
- GS-AP-PZ-16: Lithium
- GS-AP-MW-17V: Lithium
- GS-AP-PZ-18: Arsenic, Lithium
- GS-AP-MW-21V: Lithium
- GS-AP-PZ-22: Lithium
- GS-AP-MW-23H: Arsenic
- GS-AP-MW-26H: Lithium
- GS-AP-MW-28H: Lithium

- GS-AP-MW-29H: Lithium
- GS-AP-MW-25HA: Lithium
- GS-AP-MW-30HA: Lithium
- GS-AP-MW-31H: Lithium
- GS-AP-MW-32H: Lithium
- GS-AP-MW-33HO: Lithium
- GS-AP-MW-34HO: Lithium
- GS-AP-MW-35HO: Lithium
- GS-AP-MW-40H: Lithium
- GS-AP-MW-41HS: Lithium
- GS-AP-MW-38H: Lithium
- GS-AP-MW-41HD: Lithium
- GS-AP-MW-43HO: Lithium
- GS-AP-MW-44HO: Lithium

5.3.2.2 First Semi-Annual Groundwater Monitoring Event – Comparison with Site Background

Table 6, First Semi-Annual Monitoring Event Analytical Summary provides a summary of all detected constituents for the first semi-annual sampling event. As described in **Section 3.3.1.1**, groundwater elevations indicate that wells GS-AP-MW-16S and GS-AP-MW-17V are upgradient of the Site and thus, the lithium exceedance observed is the result of naturally elevated lithium in groundwater at the Site.

Comparison with Proposed Upgradient Locations

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-18: Lithium.
- GS-AP-MW-21: Lithium.

A review of analytical data derived from delineation wells identified the following exceedances for the first 2021 semi-annual sampling event using 0.0809 mg/L as the GWPS:

- GS-AP-MW-6V: Fluoride, Lithium
- GS-AP-MW-15V: Arsenic, Lithium
- GS-AP-PZ-18: Arsenic, Lithium
- GS-AP-MW-21V: Lithium
- GS-AP-MW-23H: Arsenic
- GS-AP-MW-26H: Lithium
- GS-AP-MW-29H: Lithium
- GS-AP-MW-34HO: Lithium
- GS-AP-MW-41HS: Lithium
- GS-AP-MW-41HD: Lithium

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, provided a lithium result of 0.074 mg/L in 2020, a result of 0.103 mg/L in the first semi-annual monitoring event of 2021, and a result of 0.0574 mg/L in the second semi-annual monitoring event of 2021. 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 GS-AP-MW-29H, and therefore, may further reduce the count of wells over the lithium GWPS after further evaluation and next scheduled update to site GWPS (Fall 2021). 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 0.195 and 0.135 mg/L, respectively during the first semi-annual monitoring event. During the second semi-annual monitoring event, these wells provided concentrations of 0.2 and 0.127 mg/L, respectively.
- (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.

5.3.2.3 Second Semi-Annual Groundwater Monitoring Event

The statistical results presented in this section include a GWPS of 0.0809 mg/L for lithium. Well GS-AP-MW-16S was not used in the construction of Site GWPS during the Fall 2021 update although it does offer a favorable profile for comparison with wells GS-AP-MW-15, GS-AP-MW-15V, GS-AP-MW-21, and GS-AP-MW-21V due to similar pH conditions.

During the second semi-annual monitoring event, statistical analysis of Appendix IV data identified the following SSLs in downgradient wells:

- GS-AP-MW-6D: Arsenic, Lithium
- GS-AP-MW-7: Arsenic, Lithium, Molybdenum
- GS-AP-MW-15: Arsenic, Lithium. (ASD)
- GS-AP-MW-15V: Arsenic, Lithium

Changes from the first semi-annual groundwater monitoring event to the second semi-annual groundwater monitoring event include reduction of 4 lithium SSLs (GS-AP-MW-2, GS-AP-MW-17, and GS-AP-MW-18) and the addition of 2 arsenic SSLs (GS-AP-MW-15, GS-AP-MW-15V) and 1 lithium SSL (GS-AP-MW-15V). GS-AP-MW-18 was abandoned prior to event 2. GS-AP-MW-15 and GS-AP-MW-15V have a pending ASD (submitted July 2021).

Table 7, Second Semi-Annual Monitoring Event Analytical Summary provides a summary of all detected constituents for the second semi-annual sampling event. **Figure 8a, Arsenic Isoconcentration Map – Pratt Aquifer (July-August 2021), Figure 8b, Arsenic Isoconcentration Map – American Aquifer (July-August 2021), Figure 9a, Lithium Isoconcentration Map – Pratt Aquifer (July-August**

2021), Figure 9b, Lithium Isoconcentration Map – American Aquifer (July-August 2021), and Figure 10 – Molybdenum Isoconcentration Map (July-August 2021) shows the locations of GWPS exceedances.

Limited groundwater analytical data are available for delineation wells installed at the site; therefore, groundwater quality is simply compared to the GWPS. A review of analytical data derived from delineation wells identified the following GWPS Exceedances for the second 2021 semi-annual sampling event:

- GS-AP-MW-6V: Fluoride, 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

A thorough discussion of these results are provided in **Section 7.0**. Changes from the first semi-annual monitoring event include reduction of 14 lithium exceedances in Site delineation wells. As described in Section 3.3.1.2, numerous delineation wells were redesignated during the Fall 2021 monitoring period and exceedances listed for GS-AP-MW-15V are now listed for compliance wells. GS-AP-MW-18V and GS-AP-PZ-22 were abandoned prior to the second semi-annual event.

Wells installed during the Fall of 2021 were not sampled during this event and will be sampled during the first semi-annual event of 2022.

6.0 ALTERNATE SOURCE DEMONSTRATION

An alternate source demonstration (ASD) is being submitted along with this report in **Appendix H, Alternate Source Demonstration**. This demonstration was also previously submitted in July 2021 as part of the First Semi-Annual Groundwater Monitoring and Corrective Action Report. 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.

To address SSLs at the site, an ACM was prepared to evaluate potential groundwater corrective measures for the occurrence of arsenic, lithium, and molybdenum in groundwater at the site in accordance with § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and AO No. 18-096-GW. The ACM was submitted to ADEM and placed in the operating record on June 12, 2019. A summary of recent ACM activities is presented in **Section 8**.

7.0 GROUNDWATER ASSESSMENT

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 **Figures 5a** and **5b** 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 **Figures 5a** and **5b**, 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 – Present/On-Going)

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 not sampled during the second semi-annual monitoring event. However, a Site-wide water level monitoring event took place in December 2021 that captured all historic and new wells. This data, including the locations of wells, can be viewed in **Appendix E**.

7.1.2 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.

7.1.3 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 8A 8B, 9A, 9B, and 10**, respectively. For purposes of this discussion, only the second semi-annual monitoring event data is presented. The lone exception is when wells with previous exceedances had to be abandoned prior to this sampling event due to closure related activities. In these cases, the most recent data was presented to not bias figures.

Isoconcentration lines shown on **Figures 8A through Figure 10** 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 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. Compliance monitoring well GS-AP-MW-6S and vertical delineation well GS-AP-MW-21V have exhibited decreasing trends over the previous 3 sampling events and no longer exceed the GWPS. **Figures 8A and 8B** shows the extent of arsenic concentrations over the 0.01 mg/L GWPS.

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 8A**). In this area, recent concentrations over the GWPS were observed in wells 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 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). 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)
- (3) Low boron concentrations and poor correlation coefficient with boron concentrations
- (4) Low lithium concentrations

Arsenic concentrations above GWPS were also noted in wells GS-AP-MW-15 (**Figure 8A - Pratt Seam**) as well as GS-AP-MW-15V and GS-AP-PZ-18 (**Figure 8B – American Seam or American Maxine Mine**). Data reviewed for these well locations present convincing evidence of an alternate source.

Locations GS-AP-MW-15 and GS-AP-MW-15V display different geochemical facies than CCR pore-water and appears strongly influenced by elevated by pH. An alternate source demonstration supporting this conclusion is included in **Appendix H**. Additional detailed discussion on this topic can be revisited in the *September 2020 Progress and Groundwater Delineation Report*.

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 south of the ash pond, but an alternate source has been prepared for these locations. However, additional delineation activities west of GS-AP-MW-15 are currently in progress and will be evaluated while the alternate source demonstration is reviewed by the Department.

Lithium Delineation

For evaluating lithium exceedances, the site-specific background concentration supplemented with data from wells GS-AP-MW-17V and GS-AP-MW-16S are important considerations. Data from well GS-AP-MW-17V was utilized in the Fall 2021 GWPS update. As a result, the GWPS for lithium increased to 0.0809 mg/l. While not included in this update GS-AP-MW-16S profiles well against downgradient locations with elevated pH. This will be used for discussion purposes.

GS-AP-MW-17V is an upgradient location that is screened across a fractured shale/mudstone unit at the top of the Pratt Coal Group and near the transition to the Cobb Coal Group. The following summarize

concentrations or ranges for constituents of interest in well GS-AP-MW-17V (fractured mudstone; Pratt Coal Group):

- Arsenic: Non-Detect to 0.00149(J)
- Boron: 0.0377(J) to 0.0532(J)
- Cobalt: Non-Detect
- Lithium: 0.0646 to 0.0809
- Molybdenum: 0.00508(J) to 0.00577(J)

GS-AP-MW-16S is an upgradient location that is screened across a fractured shale/mudstone unit at the top of the Pratt Coal Group and near the transition to the Cobb Coal Group. The following summarize concentrations or ranges for constituents of interest in well GS-AP-MW-17V (fractured mudstone; Pratt Coal Group):

- Arsenic: Non-Detect to 0.00173
- Boron: 0.0377(J) to 0.0762(J)
- Cobalt: Non-Detect
- Lithium: 0.0646 to 0.103
- Molybdenum: 0.00508(J) to 0.0402

As discussed in **Section 4.0**, groundwater elevations in these wells confirm suitability as hydraulically upgradient locations. Furthermore, the low concentration of boron in each well is another strong indicator that these wells are unaffected by the CCR unit.

Figure 9A shows the spatial extent of potential lithium impacts within the Pratt coal and Gillespy flow systems (**Figure 9A Inset Map shows Gillespy/Pratt Transition - north of dam only**). North of the dam, 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. Delineation wells GS-AP-MW-23H, GS-AP-MW-24H, and GS-AP-MW-42H can be utilized to show horizontal delineation 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 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.

Figure 9A also illustrates exceedances in wells GS-AP-MW-15, GS-AP-MW-18, and GS-AP-MW-21. Well location GS-AP-MW-29H had a concentration equal to the GWPS during the July-August 2021 sampling event. Except for well GS-AP-MW-18, these wells are screened across the Pratt coal seam. GS-AP-MW-18 was screened across a groundwater yielding fracture (as indicated by hydrophysics log) near the top of the Pratt Coal Group. As previously described in **Section 5.3.2.2**, the most recent lithium concentration of 0.103 mg/L observed in proposed upgradient well, GS-AP-MW-16S, is higher than observed in delineation well GS-AP-MW-29H. Thus, the concentration observed in delineation well GS-AP-MW-29H may fall within the normal range of background concentrations at the site.

Figure 9A shows that horizontal delineation to the south has been achieved in the Pratt flow system. At the time of publication, another horizontal delineation well was being installed west of GS-AP-MW-15 where a potential data gap occurs. **Section 6** and **Appendix H** outline compelling evidence for an alternate source contributing to elevated lithium in wells GS-AP-MW-15 and GS-AP-MW-21 which would negate the need for horizontal delineation in these areas if approved by the Department.

Figure 9B shows the spatial extent of potential lithium impacts within the American coal flow system. To the west of the ash pond, the lone exceedance occurs within delineation well GS-AP-MW-26H. As shown on **Figure 9B**, 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 9A** and **9B**) 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.

Figure 9B shows, to the south, lithium exceedances are noted in American coal or Maxine mine screened locations GS-AP-MW-15V, GS-AP-PZ-18, GS-AP-MW-21V, and GS-AP-MW-34HO. Partial horizontal delineation is achieved and shown on **Figure 9B** 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 9B**, the lithium concentration observed is two or more times higher than observed in wells more proximal to the waste boundary.

As presented on **Figure 9B**, 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
- 6) Well location surrounded by the large-scale, underground Maxine Mine.
- 7) Latest potentiometric surface map indicates groundwater flow from this location is towards the Mine and towards the Gorgas Ash Pond (**Appendix E**) and thus, indicating the well is hydraulically separated from the Ash Pond.

Molybdenum Delineation

Figure 10 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.

7.2 STATUS OF DELINEATION

As described in **Section 7.1.1**, a 4th phase of work and study are currently on-going. 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 will be sampled for the first time during the spring of 2022 and further discussion will be presented during the First Semi-Annual Groundwater Monitoring and Corrective Action Report of 2022.

Lithium Delineation

- Lower Discrete Flow Zone; Gillespy Flow System

- *Vertical delineation; adjacent to well GS-AP-MW-23H*
- Pratt Flow System
 - *Horizontal delineation: east of well GS-AP-MW-3*
 - ***Horizontal delineation, re-attempt: west of well GS-AP-MW-15, adjacent to piezometer GS-AP-MW-27H***
- American Flow System
 - *Vertical delineation: adjacent to well GS-AP-MW-3*
 - ***Vertical delineation: adjacent to well GS-AP-MW-36H***
 - *General data gap: adjacent to well GS-AP-MW-31H*
 - *General data gap, re-attempt: adjacent to piezometer GS-AP-MW-37H*

Arsenic Delineation

- Lower Discrete Flow Zone: Gillespy Flow System
 - *Vertical delineation; adjacent to well GS-AP-MW-23H*
- Pratt Flow System
 - ***Horizontal delineation, re-attempt: west of well GS-AP-MW-15, adjacent to piezometer GS-AP-MW-27H***
- American Flow System
 - ***Vertical delineation: adjacent to well GS-AP-MW-36H***

The bolded text in the bulleted list above indicates that an ASD is also being presented along with this report to address these exceedances and selected data gaps (**Appendix H**). Additionally, a boron isotope and fractionation study, is currently underway at the site. This data along with boron concentrations, lithium-boron ratios, and a geochemical facies analysis will be used to further evaluate sources of elevated lithium and arsenic at a subset of wells across the site. The results of this study will also be used as the basis for a final recommendation regarding the need to further delineation lithium proximal to GS-AP-MW-34HO. These findings will be discussed in the upcoming First Semi-Annual Groundwater Monitoring and Corrective Action Report of 2022.

A review of the data revealed no data gaps associated with molybdenum impacts.

8.0 EVALUATION OF GROUNDWATER CORRECTIVE MEASURES

Groundwater remedy selection has occurred in the following two stages: 1) completing an ACM to identify potentially feasible remedies for the Site after the initial determination that GWPSs have been exceeded; and 2) evaluating potential remedies to develop a Site-specific remedy plan.

8.1 REMEDY SELECTION REPORT

Since submittal of the ACM in June 2019 (Anchor QEA, 2019), investigation have been performed to select effective corrective measures for COIs in groundwater at the Site. Semi-annual and annual status reports regarding investigation and evaluation have been submitted to the Department and posted to the Site's CCR compliance webpage. Based on investigations and evaluation, the following corrective measures were proposed in the Groundwater Remedy Selection Report submitted in December 2021 to address GWPS exceedances at the Plant Gorgas Ash Pond:

- 1) Source control to include dewatering, consolidation, and capping of the Ash Pond.
- 2) Monitored Natural Attenuation (MNA); and,
- 3) Permeation grouting in areas with relatively high permeability

8.1.1 Source Control

Closure of the Ash Pond will be accomplished by dewatering, consolidating the footprint to a smaller area, and capping the CCR with a final cover system (APC 2020). The proposed corrective action strategy incorporates the closure of the Unit, which will effectively control the source of CCR constituents to groundwater by removing free liquid from the CCR, reducing the area of the Unit footprint, and capping the CCR in place to prevent further stormwater infiltration. Specifically, the design for the Unit closure calls for dewatering and consolidating the CCR material from the current footprint of approximately 420 acres to an area of approximately 274 acres. New containment structures will be constructed at the northern end of the capped area and incorporate a leachate control and collection system. A final cover system will be installed to limit the infiltration of surface runoff into the closed CCR footprint, and stormwater will be managed in a series of channels and spillways. Ash Pond closure activities began in 2019.

Excavating and subsequent placement of CCR could result in temporary releases of COIs due to physical disruption and, possibly, geochemical changes (e.g., temporary introduction of oxygen). Dewatering will also produce changes in groundwater flow. Therefore, geochemical and groundwater flow disequilibria are

expected during and, likely, for a few years after closure. Until the new flow and geochemistry equilibria are established, temporary increases in COI concentrations may be observed in some wells.

8.1.2 Monitored Natural Attenuation (MNA)

The trends observed in concentration versus time and concentration versus distance graphs provide evidence that natural attenuation is currently occurring in several areas at the Site, even without source control. Concentration versus distance graphs along nine upgradient-to-downgradient well transects indicate that arsenic, lithium, and molybdenum concentrations are generally decreasing with distance from the respective Unit boundary. Concentration versus time trendline analyses indicate that lithium concentrations at the Ash Pond are either historically decreasing or are beginning to decrease within the last 2 years. Arsenic concentrations have begun decreasing within the last year at GS-AP-MW-7. Based on the geochemical investigations, several lines of evidence support multiple attenuating mechanisms, depending upon the COIs.

The major attenuating mechanisms include the following:

- Sorption on iron oxides (arsenic and molybdenum)
- Precipitation of arsenate and molybdate phases (arsenic and molybdenum, respectively)
- Cation exchange on clays (lithium)

All COIs are subject to physical attenuation mechanisms such as dispersion and flushing, which will contribute to decreased concentrations with time and distance from the Units at the Site.

Rates of attenuation were determined by extrapolating recent decreasing trends on the concentration versus time graphs to the GWPS for areas where decreasing trends were observed. Depending on the COI and well (area), MNA alone is estimated to achieve GWPSs within 24 years, not considering the benefits of closure and permeation grouting. This time frame is reasonable compared to other, more aggressive corrective action technologies, which are not expected to achieve GWPSs in less than 24 years. However, due to short-term perturbations in groundwater flow and geochemistry due to consolidation (moving CCR) and dewatering, temporary increases in COI concentrations may be observed in some wells. Column studies were performed to assess the ability for the aquifer (soil) to chemically attenuate COIs and to help determine the stability of the attenuated COIs.

Column studies indicate arsenic, lithium, and molybdenum are attenuated by aquifer media (residual soils). The attenuation capacity of aquifer soils determined from column testing was scaled up to the entire volume

of the aquifer downgradient of the Unit but within the property boundary. The extrapolation showed attenuating capacity of the aquifer greatly exceeds the mass of arsenic, lithium, and molybdenum requiring attenuation.

Selective sequential extraction (SSE) was performed on samples of well solids (precipitates) and soils used in the column studies to assess the stability of the attenuated COIs and their host minerals. Several of the well solids (precipitates) extracts, particularly lithium, were below detection limits for the COIs. Based on available SSE data for well solids (precipitates), arsenic was primarily in the F4 (oxidizable) fraction, with some in the F2 (exchangeable) and F5 (residual) fractions; lithium was primarily in the F5 (residual) fraction; and molybdenum was primarily in the F4 (oxidizable) and F5 (residual) fractions, with some in the F1 (water soluble) and F2 (exchangeable) fractions. For SSE of the post-column soils, arsenic was primarily in the F2 (exchangeable) and F5 (residual) fractions, with some in the F3 (reducible) and F4 (oxidizable) fractions; all of the lithium was in the F5 (residual) fraction; and all of the molybdenum samples were below detection limits. Therefore, arsenic, lithium, and molybdenum are expected to remain immobile (not remobilize back into groundwater) because they are attenuated primarily in stable mineral phases.

Reactive transport modeling was performed along simulated fracture pathways in rock and demonstrated that the migration of arsenic, molybdenum, and lithium are significantly retarded (slower) as compared to a nonreactive constituent such as chloride. The attenuation of arsenic and molybdenum is dominated by geochemical reactions near the fracture, while attenuation of lithium is dominated by matrix diffusion and cation exchange on clay minerals in the rock matrix.

8.1.3 Permeation Grouting

Permeation grouting is a selected remedy for the Ash Pond. The intent of permeation grouting is to create a virtually impermeable wall to stop the flow of impacted groundwater away from the Unit. The wall is created by filling fractures, bedding planes, and other void spaces in the rock with cement grout. Permeation grouting has been performed successfully at the Site for civil engineering purposes. Permeation grouting is proposed along the north side of the Ash Pond, just below the current dam. To determine the effectiveness and refine the implementation process of permeation grouting at the Ash Pond, a pilot test will be performed for approximately 150 feet in the vicinity of wells GS-AP-MW-7V, GS-AP-MW-6D, and GS-AP-MW-6S to a depth of approximately 200 feet bgs. A detailed pilot test plan will be prepared prior to implementation of the permeation grouting pilot test. However, the pilot test is expected to contain the components as described below or similar components. The horizontal and vertical extent of the full-scale permeation

grouting program are dependent on further evaluation and the results of the pilot test. The location and depth of the grouting pilot test was selected based on relatively high concentrations of COIs along flow paths such that a linear treatment would be effective and be protective of surface water.

The grouting pilot test that will be used at the Site is based on an ongoing proof-of-concept field demonstration at APC's Logan Martin Dam, which was approved by civil and geotechnical engineers at the Federal Energy Regulatory Commission. The proposed pilot study utilizes the most current techniques for permeation grouting developed by the team of experts emplacing a grout wall at the Logan Martin Dam site in Vincent, Alabama. Grouting programs typically include the drilling and testing of primary grout holes, followed by the injection of cement-based grout. Primary grout holes are drilled on a prescribed spacing, then secondary holes are placed between the primary holes. One measure of success of the grouting program is the reduction in permeability (as measured by packer hydraulic conductivity tests) in the secondary holes, and resultant less grout injection into the secondary holes, as compared to the primary holes. In addition, a grout wall typically consists of more than one row of grout holes. Both low- and high-mobility grout will be utilized in the pilot test program to ensure adequate filling of spaces in the rock and a resulting wall that is as impermeable as possible. The reactive ingredient in both grouts is Portland cement. Low-mobility grout typically contains sand to increase its viscosity, limit its distance of travel, and fill larger spaces in the rock. High-mobility grout does not contain sand, can penetrate smaller spaces (e.g., smaller fractures) in the rock, and will travel greater distances from the grout hole. Other ingredients may be added to the grout to improve its properties and serve as fillers. Any additional additives used in the pilot test program will be determined to be environmentally acceptable based on their safety data sheets and other information.

Grouting programs are, by nature, adaptive, and this approach is consistent with the adaptive site management approach for corrective action at the Site. Though a 150-foot pilot test grout section is anticipated, cells within the section will be approximately 40 to 50 feet long. After emplacement of each cell, data will be analyzed, and specifications for the next cell will be adjusted accordingly. The major measures of success of a grout wall include permeability reduction within the wall and a lower potentiometric surface on the downgradient side of the wall after grouting. Reduction in groundwater flow will also reduce or eliminate mass flux of COIs away from the closed pond. Slower groundwater travel times should aid MNA because slower travel times allow more time for attenuation mechanisms to operate. Most grout holes will be drilled using sonic drilling techniques. A select number of holes will be cored using wireline techniques to enable logging of rock and identification of permeable features. All grout holes will be permeability tested using packer tests. Permeability tests may be repeated in the same hole after grouting adjacent holes to quantify the permeability reduction during the grouting program. In addition,

piezometers will be installed upgradient, side-gradient, and downgradient of the grout cells to monitor water levels and potentiometric surfaces. Instruments (multiparameter sondes such as Aqua TROLLs) will be installed in select grout holes and piezometers to collect continuous water level and pH data. A rise in pH indicates grout influence in the vicinity of a grout hole or piezometer due to the influence of the higher pH of Portland cement. A pH rise from grouting is expected to be temporary and observed very locally, i.e., in adjacent holes near the grout hole during grouting. pH is expected to move back toward pre-grouting (ambient) values after the grouting is completed.

8.1.4 Adaptive Site Management

As applied here, adaptive Site management is a component of the corrective action monitoring program, in which monitoring results are continually evaluated to determine if the system is making progress toward achieving remedy goals. Based on system performance—either achieving goals or not making expected progress—the remedy system may need to be adapted or changed. Adaptation of the system may include ceasing actions no longer necessary or changing the system because it is not performing as expected. The adaptive Site management approach plans for changes at the Site and provides a process to make changes as necessary.

8.2 CORRECTIVE ACTION MONITORING PROGRAM

As required by 40 CFR § 257.98(a) and ADEM Admin. Code r. 335-13-15-.06(9)(a), the owner/operator must implement the groundwater remedy within 90 days of selecting a remedy, including establishing a corrective action groundwater monitoring program. That monitoring program must perform the following actions: 1) meet the assessment monitoring requirements of 40 CFR § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6); 2) document the effectiveness of the remedy; and 3) demonstrate compliance with the GWPS. A corrective action groundwater monitoring program providing Site-specific remedy monitoring details will be submitted within 90 days of the Groundwater Remedy Selection Report (Anchor 2021).

9.0 SUMMARY AND CONCLUSIONS

Semi-annual assessment monitoring events took place in February and July-August 2021. Statistical evaluations of the 2021 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:

- Completed and submit a Corrective Action Groundwater Monitoring Program document presenting the groundwater corrective action remedies to be implemented.
- Evaluate and plan for remedy implementation, which may include: the collection of additional data, technical research, and development of pilot programs for the remediation of arsenic, lithium, and molybdenum.
- Conduct the first semi-annual assessment monitoring event in the first half of 2022 and submit the semi-annual groundwater monitoring report summarizing the findings to ADEM by July 31, 2022.
- Complete further ASD study into the natural occurrences of lithium and arsenic.

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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
WELL NETWORK											
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-16S	Upgradient	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-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-23V	Vertical Gradient	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-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

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
WELL NETWORK											
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
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

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
WELL NETWORK											
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
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
WELL NETWORK											
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
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

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
WELL NETWORK											
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
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

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
WELL NETWORK											
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
WELL NETWORK											
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-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

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(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
WELL NETWORK											
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
02/01/2021 - 08/12/2021

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	1-80	mg/L
Fluoride	SM4500F G 2017	0.1	mg/L
pH_Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	1-50	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	0.000203-0.00203	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
Fluoride	SM4500F G 2017	0.1	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.
Recent Groundwater Elevations Summary
Plant Gorgas Ash Pond
April 2018 - July 2021

Well Name	Top of Casing Elevation (ft. NAVD)	Groundwater Elevation (ft. NAVD)									
		4/2/2018	5/14/2018	10/15/2018	3/13/2019	4/15/2019	9/23/2019	3/13/2020	9/14/2020	7/26/2021	
GS-AP-MW-1	490.68	DRY	382.89	382.88	385.41	382.90	383.18	382.94	382.88	382.93	
GS-AP-MW-2	522.03	376.59	376.49	376.18	376.50	376.10	373.88	375.94	374.26	375.29	
GS-AP-MW-3	512.29	374.99	374.88	374.64	375.16	374.79	372.92	374.66	372.56	373.58	
GS-AP-MW-4	507.90	372.49	372.08	371.39	372.97	372.86	369.36	372.65	370.44	371.64	
GS-AP-MW-5	487.17	368.07	368.09	367.27	369.39	369.01	--	--	--	--	
GS-AP-MW-6S	274.67	256.75	256.70	256.98	256.84	256.77	257.27	257.81	258.31	257.65	
GS-AP-MW-6D	274.50	262.11	261.95	263.06	262.62	262.89	263.13	263.58	263.88	263.56	
GS-AP-MW-7	313.45	304.73	304.58	304.81	303.63	303.43	303.92	303.69	304.17	303.54	
GS-AP-MW-8	434.61	390.73	391.08	389.43	391.66	391.88	387.52	390.10	389.42	390.70	
GS-AP-MW-9	420.04	375.70	375.58	375.47	375.94	375.28	--	--	--	--	
GS-AP-MW-10	468.41	344.09	344.10	343.35	--	344.05	--	--	--	--	
GS-AP-MW-11	468.34	382.13	382.20	382.13	382.54	381.68	--	--	--	--	
GS-AP-MW-12	450.67	380.85	380.84	380.81	380.86	380.30	378.16	380.13	378.74	380.22	
GS-AP-MW-13	464.20	392.79	393.22	392.99	395.09	395.73	--	--	--	--	
GS-AP-MW-14	472.40	372.11	371.88	371.77	372.46	371.98	--	--	--	--	
GS-AP-MW-15	454.89	374.55	374.40	373.88	375.36	374.58	371.79	374.68	372.02	374.13	
GS-AP-PZ-16	462.29	288.58	--	--	294.54	290.51	276.24	295.03	276.65	277.41	
GS-AP-MW-16S	462.42	403.66	--	--	404.62	404.25	403.02	404.20	403.36	406.03	
GS-AP-MW-16D	462.27	324.57	324.98	318.72	330.01	325.17	316.03	329.36	316.17	316.97	
GS-AP-MW-17	531.88	357.07	355.09	277.68	358.92	360.49	349.34	359.09	350.15	354.23	
GS-AP-MW-18	403.39	357.03	354.99	350.59	359.11	360.66	349.49	360.25	350.36	354.30	
GS-AP-PZ-18	402.38	288.46	--	--	294.43	290.47	276.23	294.86	276.72	277.47	
GS-AP-MW-19	495.58	383.50	383.52	383.72	384.44	384.09	382.96	383.82	382.54	384.71	
GS-AP-MW-20	528.15	328.12	329.38	326.44	335.64	329.33	329.45	331.81	320.81	320.43	
GS-AP-MW-21	509.48	349.98	350.33	346.15	352.67	349.05	343.85	352.02	344.25	344.31	
GS-AP-PZ-22	532.38	288.52	--	--	294.43	290.48	276.21	295.02	276.58	277.43	
*GS-AP-MW-7V	312.14	--	--	--	129.68	--	138.68	144.22	121.83	122.43	
GS-AP-MW-12V	481.32	--	--	--	357.92	--	355.19	357.38	355.63	360.25	
GS-AP-MW-17V	531.45	--	--	--	424.68	--	419.40	425.61	423.83	426.11	
GS-AP-MW-18V	404.61	--	--	--	295.94	--	285.03	297.99	284.79	283.75	
GS-AP-MW-23H	304.98	--	--	--	276.82	--	275.77	277.13	276.74	277.06	
GS-AP-MW-24H	261.35	--	--	--	255.11	--	254.99	255.53	255.04	255.21	
*GS-AP-MW-25H	461.79	--	--	--	301.10	--	292.31	301.11	300.39	302.15	
GS-AP-MW-26H	394.68	--	--	--	299.13	--	297.55	299.07	297.98	299.34	
*GS-AP-MW-27H	535.03	--	--	--	299.24	--	512.98	305.94	302.84	--	
GS-AP-MW-28H	513.82	--	--	--	359.02	--	349.40	360.20	350.26	354.34	
GS-AP-MW-29H	440.95	--	--	--	359.98	--	350.64	361.32	351.19	354.99	
*GS-AP-MW-30H	582.49	--	--	--	582.49	--	311.02	313.15	307.96	308.31	
*GS-AP-MW-30HS	582.53	--	--	--	582.53	--	DRY	535.15	Dry	534.84	
GS-AP-MW-9V	420.86	--	--	--	--	--	368.30	365.63	366.98	--	
GS-AP-MW-15V	455.89	--	--	--	--	--	314.63	301.24	301.57	--	
GS-AP-MW-21V	509.84	--	--	--	--	--	--	334.94	334.36	--	
GS-AP-MW-25HA	462.27	--	--	--	--	--	--	285.88	287.36	--	
GS-AP-MW-30HA	582.40	--	--	--	--	--	295.09	276.84	277.52	--	
GS-AP-MW-31H	587.39	--	--	--	--	--	355.18	351.86	352.30	--	
GS-AP-MW-32H	550.03	--	--	--	--	--	309.74	293.82	292.48	--	
GS-AP-MW-33HO	526.79	--	--	--	--	--	303.00	287.38	286.69	--	
GS-AP-MW-34HO	523.82	--	--	--	--	--	294.92	288.81	277.34	--	
GS-AP-MW-35HO	553.35	--	--	--	--	--	311.18	295.81	295.39	--	
GS-AP-MW-36H	536.61	--	--	--	--	--	313.77	300.53	300.00	--	
GS-AP-MW-37H	459.28	--	--	--	--	--	326.07	305.24	--	--	
GS-AP-MW-38H	345.74	--	--	--	--	--	298.28	297.55	298.77	--	
GS-AP-MW-39H	451.13	--	--	--	--	--	--	152.45	142.01	164.61	
GS-AP-MW-41HS	284.65	--	--	--	--	--	264.27	262.29	262.34	--	
GS-AP-MW-41HD	284.54	--	--	--	--	--	283.38	282.72	282.25	--	
GS-AP-MW-42H	340.62	--	--	--	--	--	286.94	287.88	288.39	--	
GS-AP-MW-43H	514.62	--	--	--	--	--	366.54	364.31	365.14	--	
GS-AP-MW-40HO	357.91	--	--	--	--	--	--	276.66	278.02	--	
GS-AP-MW-44HO	506.21	--	--	--	--	--	--	364.14	363.18	--	
GS-AP-MW-7VR	313.89	--	--	--	--	--	--	--	233.28	264.51	
GS-AP-MW-6V	275.44	--	--	--	--	--	--	264.51	262.12	--	
GS-AP-MW-11R	455.60	--	--	--	--	--	--	364.14	382.16	--	
GS-AP-MW-27HR	535.26	--	--	--	--	--	--	233.28	373.22	--	
GS-AP-MW-37HR	460.05	--	--	--	--	--	--	264.51	316.94	--	

Notes:

- ft = feet; ft NAVD = elevation in feet, referenced to North American Vertical Datum
- (1) "-" = "Not Measured"
- (2) Shaded cell - indicates groundwater elevation unrepresentative of Site flow systems
- (3) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD) 1988



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Gorgas Ash Pond
07/27/2021 - 08/10/2021

GS-AP-MW-19				
Sample Date = 8/10/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	54.8	53.8	1.84%
Chloride	mg/L	4.83	4.85	0.41%
Fluoride	mg/L	0.283	0.29	2.44%
Sulfate	mg/L	15.2	14.8	2.67%
TDS	mg/L	307	321	4.46%
Arsenic	mg/L	0.00133	0.00115	14.52%
Barium	mg/L	0.343	0.347	1.16%
Lithium	mg/L	0.0305	0.03	1.65%
Molybdenum	mg/L	0.00269	0.00271	0.74%
GS-AP-MW-17				
Sample Date = 8/3/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	2.17	2.16	0.46%
Chloride	mg/L	5.88	5.75	2.24%
Fluoride	mg/L	0.3	0.295	1.68%
Sulfate	mg/L	7.58	7.92	4.39%
TDS	mg/L	435	431	0.92%
Arsenic	mg/L	0.00086	0.00084	2.35%
Barium	mg/L	0.0889	0.0875	1.59%
Lithium	mg/L	0.068	0.0678	0.30%
Molybdenum	mg/L	0.00157	0.00151	3.90%
GS-AP-MW-24H				
Sample Date = 8/3/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	43.4	44.2	1.83%
Chloride	mg/L	2.94	2.91	1.03%
Fluoride	mg/L	0.208	0.198	4.93%
Sulfate	mg/L	6.21	6.35	2.23%
TDS	mg/L	191	242	23.56%
Arsenic	mg/L	0.00033	0.00021	45.30%
Barium	mg/L	1.04	1.04	0.00%
Cobalt	mg/L	0.00024	0.00023	2.56%
Lithium	mg/L	0.0249	0.0249	0.00%
Molybdenum	mg/L	0.00052	0.00054	3.77%



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Gorgas Ash Pond
07/27/2021 - 08/10/2021

GS-AP-MW-23H				
Sample Date = 7/27/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	75.5	76.8	1.71%
Chloride	mg/L	2.48	2.25	9.73%
Fluoride	mg/L	0.13	0.118	9.68%
Sulfate	mg/L	339	336	0.89%
TDS	mg/L	580	581	0.17%
Arsenic	mg/L	0.0474	0.0494	4.13%
Barium	mg/L	0.0133	0.0148	10.68%
Cobalt	mg/L	0.00049	0.0005	3.43%
Lithium	mg/L	0.0309	0.0308	0.32%
Molybdenum	mg/L	0.0009	0.00081	10.60%
GS-AP-MW-34HO				
Sample Date = 7/27/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	0.108	0.106	1.87%
Calcium	mg/L	100	102	1.98%
Chloride	mg/L	386	371	3.96%
Fluoride	mg/L	0.408	0.366	10.85%
Sulfate	mg/L	1580	1580	0.00%
TDS	mg/L	2930	2940	0.34%
Arsenic	mg/L	0.00179	0.00185	3.30%
Barium	mg/L	0.0668	0.0649	2.89%
Lithium	mg/L	0.207	0.205	0.97%
Molybdenum	mg/L	0.0143	0.0138	3.56%
GS-AP-MW-44HO				
Sample Date = 7/27/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.46	1.46	0.00%
Chloride	mg/L	33.4	33.8	1.19%
Fluoride	mg/L	0.254	0.254	0.00%
Sulfate	mg/L	36.9	38.6	4.50%
TDS	mg/L	510	506	0.79%
Arsenic	mg/L	0.00034	0.00037	8.38%
Barium	mg/L	0.0749	0.0758	1.19%
Lithium	mg/L	0.0567	0.0568	0.18%



Table 4a. Relative Percent Difference (RPD) Calculations

Plant Gorgas Ash Pond
07/27/2021 - 08/10/2021

GS-AP-MW-44HO				
Sample Date = 7/27/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Molybdenum	mg/L	0.0035	0.00361	3.09%

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
07/27/2021 - 08/10/2021

Parameters Detected Above MDL					
Sample Date	QC Location	Parameter	Blank Concentration	Units	MDL
08/03/2021	FB-2	Fluoride	0.0843 J	mg/L	0.06
07/27/2021	EB-1	Fluoride	0.0662 J	mg/L	0.06
07/27/2021	FB-1	Fluoride	0.0614 J	mg/L	0.06
08/10/2021	FB-4	Chromium	0.00029 J	mg/L	0.0002
08/09/2021	FB-3	Chromium	0.00028 J	mg/L	0.0002
08/03/2021	EB-1	Chromium	0.00022 J	mg/L	0.0002
08/03/2021	FB-2	Chromium	0.00027 J	mg/L	0.0002
07/28/2021	EB-1	Chromium	0.0003 J	mg/L	0.0002
07/27/2021	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 4c – Field QC: Data Validation Results (Blanks)

Plant Gorgas Ash Pond

7/27/2021 - 8/10/2021

List of Compliance Sample Concentrations < 5x Blank Concentrations							
Sample Date	QC Sample	Parameter	QC Sample Result (5x)	Sample Location	Result	Units	Validation Flag
08/09/2021	FB-3	Chromium	0.00139	GS-AP-MW-12	0.00031 J	mg/L	+(U)*
08/03/2021	FB-2	Chromium	0.00135	GS-AP-MW-17	0.00041 J	mg/L	+(U)*
08/03/2021	FB-2	Fluoride	0.4215	GS-AP-MW-17	0.3 v	mg/L	+(U)*
07/27/2021	EB-1	Fluoride	0.331	GS-AP-MW-23H	0.13 v	mg/L	+(U)*
08/03/2021	EB-1	Chromium	0.00111	GS-AP-MW-24H	0.00028 J	mg/L	+(U)*
08/10/2021	FB-4	Chromium	0.00145	GS-AP-MW-26H	0.00037 J	mg/L	+(U)*
08/03/2021	EB-1	Chromium	0.00111	GS-AP-MW-3	0.00027 J	mg/L	+(U)*
08/10/2021	FB-4	Chromium	0.00145	GS-AP-MW-40H	0.00032 J	mg/L	+(U)*
08/03/2021	EB-1	Chromium	0.00111	GS-AP-MW-41HD	0.00025 J	mg/L	+(U)*
07/28/2021	EB-1	Chromium	0.00152	GS-AP-MW-41HS	0.00031 J	mg/L	+(U)*
07/27/2021	FB-1	Chromium	0.00131	GS-AP-MW-6	0.00024 J	mg/L	+(U)*
07/27/2021	FB-1	Fluoride	0.307	GS-AP-MW-6	0.2 v	mg/L	+(U)*
07/27/2021	EB-1	Fluoride	0.331	GS-AP-MW-6	0.2 v	mg/L	+(U)*
07/27/2021	FB-1	Chromium	0.00131	GS-AP-MW-6D	0.00024 J	mg/L	+(U)*
07/27/2021	FB-1	Fluoride	0.307	GS-AP-MW-6D	0.127 v	mg/L	+(U)*
07/27/2021	EB-1	Fluoride	0.331	GS-AP-MW-6D	0.127 v	mg/L	+(U)*
08/10/2021	FB-4	Chromium	0.00145	GS-AP-MW-8	0.00058 J	mg/L	+(U)*
08/03/2021	FB-2	Chromium	0.00135	GS-AP-PZ-22	0.00024 J	mg/L	+(U)*
08/03/2021	FB-2	Fluoride	0.4215	GS-AP-PZ-22	0.419 v	mg/L	+(U)*

Notes:

1. Lab qualifiers have been appended to result when applicable
2. QC Sample listed represents the source of comparison, validation flag.
3. Only Appendix 4 Constituents were compared and validated (excluding Radium).



Table 5. Summary of Background Levels and Groundwater Protection Standards

Plant Gorgas Ash Pond

Appendix IV Analytes			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.353	2
Beryllium	mg/L	0.003	0.004
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.01	0.01
Fluoride	mg/L	0.572	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.103	0.0809
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.041	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	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 Summary
Plant Gorgas Ash Pond
2/1/2021-2/17/2021

Analyte	Units	GS-AP-MW-2	GS-AP-MW-3	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-8	GS-AP-MW-12	GS-AP-MW-15	GS-AP-MW-16S
		02/01/2021	02/17/2021	02/03/2021	02/03/2021	02/02/2021	02/02/2021	02/01/2021	02/09/2021	02/10/2021
Appendix III										
Boron	mg/L	0.13	0.426	0.817	1.24	1.6	<0.03	0.0672 J	0.0521 J	0.0762 J
Calcium	mg/L	0.517	39.3	50.7	56.9	12.2	4.35	45.8	4.38	15.7
Chloride	mg/L	8.42	17.4	14.9	12.2	6.76	3.85	3.32	6.12	6.17
Fluoride	mg/L	0.865	0.1	0.195	0.135	0.124	0.114	0.126	0.591	0.529
pH_Field	SU	9.31	7.71	7.05	7.55	7.77	5.69	7.55	11.88	10.37
Sulfate	mg/L	21.3	158	116	58.9	130	4.83	18.7	10.6	3.84
TDS	mg/L	333	387	274	301	349	98.7	224	616	402
Appendix IV										
Antimony	mg/L	<0.000507	<0.000507	0.00055 J	<0.000507	<0.000507	<0.000507	0.000518 J	0.00075 J	<0.000507
Arsenic	mg/L	<6.8e-005	0.000168 J	0.0071	0.104	0.275	0.000228	0.00747	0.0145	0.00173
Barium	mg/L	0.0578	0.59	0.0779	0.443	0.115	0.0068	0.201	0.132	0.0976
Beryllium	mg/L	<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
Chromium	mg/L	0.000505 J	0.000326 J	0.000268 J	0.000264 J	0.00435	0.000389 J	<0.000203	0.00072 J	0.000246 J
Cobalt	mg/L	<6.8e-005	<6.8e-005	0.000663	<6.8e-005	0.00248	0.000384	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.518 U	0.331 U	0.489 U	0.647 U	0.373 U	0.223 U	0.946 U	0.442 U	0.63 U
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	0.00243	8.09e-005 J	<6.8e-005	8.74e-005 J	0.000105 J
Lithium	mg/L	0.0445	0.0995	0.0455	0.312	0.183	0.00796 J	0.0249	0.493	0.103
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00427	0.0113	0.0218	0.0095	0.202	<6.8e-005	0.00792	0.0644	0.0402
Selenium	mg/L	<0.000507	<0.000507	0.000794 J	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507
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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" - Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 6.
First Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
2/1/2021-2/17/2021

Analyte	Units	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-6V	GS-AP-MW-21	GS-AP-MW-9V	GS-AP-MW-12V	GS-AP-MW-15V
		02/10/2021	02/02/2021	02/08/2021	02/08/2021	02/03/2021	02/08/2021	02/02/2021	02/01/2021	02/09/2021
Appendix III										
Boron	mg/L	<0.03	0.0946 J	0.546	0.0336 J	0.1 J	0.0991 J	0.0358 J	<0.03	0.0722 J
Calcium	mg/L	34.6	3.3	45.6	56.8	1.5	1.95	44.8	48.9	10
Chloride	mg/L	3.19	10.2	5.48	6	48	39.8	10.8	3.86	197
Fluoride	mg/L	0.103	0.276	0.485	0.319	4.28	0.203	0.183	0.169	0.329
pH_Field	SU	7.73	8.43	7.49	7.89	8.9	10.69	6.94	7.3	9.55
Sulfate	mg/L	15.8	55.1	72.6	16.2	4.29	232	31.2	<0.5	350
TDS	mg/L	224	548	384	324	840	684	314	240	1040
Appendix IV										
Antimony	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	0.000861 J	0.00237
Arsenic	mg/L	0.000491	0.00478	0.00826	0.00178	0.000767	0.000624	0.000101 J	0.00154	0.0165
Barium	mg/L	0.356	0.107	0.126	0.36	0.124	0.151	0.17	1.6	0.2
Beryllium	mg/L	<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
Chromium	mg/L	0.00107	0.00255	0.000296 J	0.000258 J	0.000274 J	0.000705 J	0.000228 J	0.00311	0.00142
Cobalt	mg/L	0.000252	0.000102 J	<6.8e-005	<6.8e-005	8.19e-005 J	<6.8e-005	<6.8e-005	0.00129	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.285 U	2.53	0.647 U	0.947 U	0.2 U	0.667 U	0.154 U	0.944 U	0.55 U
Lead	mg/L	0.000873	0.000175 J	<6.8e-005	<6.8e-005	0.000155 J	<6.8e-005	<6.8e-005	0.0013	<6.8e-005
Lithium	mg/L	0.0376	0.0634	0.108	0.0368	0.156	0.239	0.0299	0.0384	0.122
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00014 J	0.00538	0.033	0.00366	0.00284	0.0396	0.000538	0.00164	0.0522
Selenium	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507
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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" -Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 6.
First Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
2/1/2021-2/17/2021

Analyte	Units	GS-AP-PZ-16	GS-AP-MW-17V	GS-AP-PZ-18	GS-AP-MW-18V	GS-AP-MW-21V	GS-AP-PZ-22	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-26H
		02/17/2021	02/02/2021	02/10/2021	02/03/2021	02/09/2021	02/02/2021	02/03/2021	02/02/2021	02/09/2021
Appendix III										
Boron	mg/L	0.089 J	0.0396 J	0.0701 J	0.0766 J	0.114	0.0486 J	0.0425 J	0.0685 J	<0.03
Calcium	mg/L	9.59	31.8	40.5	5.57	73.8	16.5	75.6	42.4	28.1
Chloride	mg/L	6.69	3.49	3.2	5.68	592	2.99	2.07	3.06	2.55
Fluoride	mg/L	0.219	0.244	0.368	0.334	0.546	0.389	0.156	0.209	0.112
pH_Field	SU	8.32	7.58	6.9	8.42	7.87	7.5	6.22	6.93	7.38
Sulfate	mg/L	14.1	8.81	390	14.6	645	84.1	339	6.43	5.76
TDS	mg/L	397	356	787	308	2250	446	612	259	280
Appendix IV										
Antimony	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	0.000661 J	<0.000507	<0.000507	<0.000507	<0.000507
Arsenic	mg/L	0.000258	0.000243	0.016	0.00588	0.0063	0.00338	0.0562	0.000341	0.000192 J
Barium	mg/L	0.27	0.308	0.0405	0.26	0.028	0.0891	0.0138	0.952	0.775
Beryllium	mg/L	<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
Chromium	mg/L	<0.000203	0.000313 J	<0.000203	0.000212 J	0.000218 J	<0.000203	0.000222 J	0.000382 J	<0.000203
Cobalt	mg/L	<6.8e-005	<6.8e-005	0.00443	<6.8e-005	<6.8e-005	<6.8e-005	0.000512	0.000192 J	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.753 U	0.448 U	0.773 U	0.921 U	0.867 U	1.01 U	0.767 U	1.03 U	0.674 U
Lead	mg/L	0.000148 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0762	0.0585	0.12	0.0293	0.124	0.0743	0.0319	0.0247	0.0928
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00132	0.00252	0.00511	0.0236	0.0983	0.00367	0.000902	0.000563	0.000207
Selenium	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507
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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" -Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 6.
First Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
2/1/2021-2/17/2021

Analyte	Units	GS-AP-MW-28H	GS-AP-MW-29H	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
		02/17/2021	02/03/2021	02/10/2021	02/17/2021	02/01/2021	02/10/2021	02/03/2021	02/03/2021	02/04/2021
Appendix III										
Boron	mg/L	0.0748 J	0.809	0.147	0.0668 J	<0.03	0.0477 J	0.0453 J	0.0964 J	<0.03
Calcium	mg/L	2.02	26.1	2.11	29.7	4.92	3.24	30.3	100	3.3
Chloride	mg/L	10.3	18.9	43.7	3.69	31.2	39.4	55.2	156	23.9
Fluoride	mg/L	0.18	0.267	1.81	0.884	0.176	0.134	0.178	0.298	0.152
pH_Field	SU	8.31	7.63	8.77	7.29	8.66	8.03	7.64	7.26	8.35
Sulfate	mg/L	6.39	135	171	136	32.2	50.8	70.7	1610	25.3
TDS	mg/L	451	480	887	534	339	379	443	2930	339
Appendix IV										
Antimony	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507
Arsenic	mg/L	0.000796	0.00794	0.00923	0.00354	0.000325	0.000838	0.00177	0.00257	0.000442
Barium	mg/L	0.0297	0.318	0.208	0.089	0.0974	0.0511	0.465	0.0543	0.052
Beryllium	mg/L	<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
Chromium	mg/L	0.000352 J	<0.000203	<0.000203	0.000418 J	0.000345 J	<0.000203	0.000207 J	0.000397 J	0.000211 J
Cobalt	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	0.00016 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.911 U	0.102 U	0.422 U	0.902 U	0.189 U	0.546 U	0.313 U	0.485 U	0.527 U
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	0.00028	0.000102 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0686	0.0915	0.0579	0.0548	0.0417	0.0471	0.0534	0.249	0.0734
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00454	0.0623	0.0158	0.0019	0.00447	0.0889	0.00346	0.00753	0.00273
Selenium	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507
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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" -Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 6.
First Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
2/1/2021-2/17/2021

Analyte	Units	GS-AP-MW-36H	GS-AP-MW-40H	GS-AP-MW-41HS	GS-AP-MW-38H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43HO	GS-AP-MW-44HO
		02/17/2021	02/02/2021	02/08/2021	02/09/2021	02/08/2021	02/03/2021	02/17/2021	02/03/2021
Appendix III									
Boron	mg/L	0.0413 J	0.0305 J	1.06	0.0504 J	1.48	0.053 J	0.119	0.0472 J
Calcium	mg/L	3.16	199	49.8	10.6	60.8	134	4.82	2.87
Chloride	mg/L	24.3	36.8	9.18	28.1	6.44	10.1	96.3	44.8
Fluoride	mg/L	0.22	0.123	0.152	0.243	0.138	0.131	0.174	0.181
pH_Field	SU	8.36	6.55	6.77	8.06	7.36	6.47	8.72	8.9
Sulfate	mg/L	28.9	644	95.1	27	111	373	285	57
TDS	mg/L	292	1320	317	355	326	768	853	592
Appendix IV									
Antimony	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507
Arsenic	mg/L	0.00102	0.000958	0.000551	0.0026	0.00148	0.00806	0.00132	0.000795
Barium	mg/L	0.0463	0.0384	0.0544	0.356	0.0434	0.0216	0.0894	0.0602
Beryllium	mg/L	<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
Chromium	mg/L	0.000271 J	0.000222 J	<0.000203	<0.000203	0.000235 J	0.000298 J	0.000219 J	0.000255 J
Cobalt	mg/L	0.000148 J	0.002	0.00175	<6.8e-005	0.000585	0.000752	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.322 U	0.369 U	0.49 U	0.746 U	0.409 U	0.475 U	0.629 U	0.145 U
Lead	mg/L	8.8e-005 J	<6.8e-005	<6.8e-005	8.23e-005 J	<6.8e-005	<6.8e-005	0.000328	<6.8e-005
Lithium	mg/L	0.039	0.0571	0.14	0.0676	0.356	0.0356	0.0723	0.063
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.0054	0.00257	0.00288	0.00267	0.0284	0.00174	0.00292	0.00429
Selenium	mg/L	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507	<0.000507
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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" - Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 7.
Second Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
7/27/2021-8/12/2021

Analyte	Units	GS-AP-MW-2	GS-AP-MW-3	GS-AP-MW-6	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-8	GS-AP-MW-12	GS-AP-MW-15	GS-AP-MW-16S
		08/04/2021	08/03/2021	07/27/2021	07/27/2021	08/09/2021	08/10/2021	08/09/2021	08/03/2021	08/03/2021
Appendix III										
Boron	mg/L	0.117	0.386	0.873	1.29	1.62	<0.03	<0.03	0.0491 J	0.0639 J
Calcium	mg/L	0.564	30.8	52.6	55.5	11.6	4.47	40.2	3.55	23.9
Chloride	mg/L	7.25	13.6	17	11.1	7.03	4.04	2.75	6.22	3.29
Fluoride	mg/L	0.932	0.102	0.2	0.127	0.11	0.0924 J	0.139	0.615	0.481
pH_Field	SU	9.08	7.82	6.67	6.79	7.49	5.02	7.98	11.56	10.68
Sulfate	mg/L	16.8	99.4	114	64.4	133	3.77	17.3	9.77	9.32
TDS	mg/L	316	333	273	262	340	101	219	632	343
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	0.00123	<0.000508	<0.000508	<0.000508	0.00179	0.000652 J	<0.000508
Arsenic	mg/L	<6.8e-005	0.000144 J	0.00634	0.107	0.282	0.00039	0.00308	0.0139	0.00323
Barium	mg/L	0.0702	0.589	0.0876	0.488	0.0891	0.00805	0.194	0.129	0.0565
Beryllium	mg/L	<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
Chromium	mg/L	0.000849 J	0.000268 J	0.000239 J	0.000241 J	0.00234	0.000579 J	0.000308 J	0.000802 J	0.000844 J
Cobalt	mg/L	<6.8e-005	<6.8e-005	0.000643	<6.8e-005	0.0011	0.000586	<6.8e-005	8.79e-005 J	0.000192 J
Combined Radium 226 + 228	pCi/L	0.502 U	0.978 U	0.87 U	0.919 U	1.33	0.77 U	0.907 U	0.65 U	0.362 U
Lead	mg/L	<6.8e-005	<6.8e-005	7.75e-005 J	<6.8e-005	0.00119	0.000149 J	<6.8e-005	7.98e-005 J	0.000389
Lithium	mg/L	0.0443	0.088	0.0576	0.326	0.205	0.00832 J	0.0354	0.536	0.0707
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00168	0.00977	0.0452	0.0101	0.207	<6.8e-005	0.00452	0.0663	0.0254
Selenium	mg/L	<0.000508	<0.000508	0.00124	<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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" - Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 7.
Second Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
7/27/2021-8/12/2021

Analyte	Units	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-19	GS-AP-MW-6V	GS-AP-MW-21	GS-AP-MW-9V	GS-AP-MW-12V	GS-AP-MW-15V	GS-AP-PZ-16
		08/09/2021	08/03/2021	08/10/2021	08/02/2021	08/04/2021	08/10/2021	08/09/2021	08/03/2021	08/09/2021
Appendix III										
Boron	mg/L	<0.03	0.0729 J	<0.03	0.101 J	0.0993 J	<0.03	<0.03	0.0601 J	0.0747 J
Calcium	mg/L	33.2	2.16	53.8	2.1	1.76	45.1	35.7	10.6	18.5
Chloride	mg/L	3.08	5.88	4.83	94.1	54.8	18.8	4.44	176	6.22
Fluoride	mg/L	0.131	0.295	0.29	4.45	0.24	0.166	0.187	0.278	0.235
pH_Field	SU	7.53	8.6	7.72	8.76	10.95	7.12	8.77	8.97	9.09
Sulfate	mg/L	14.4	7.92	14.8	14.1	231	32.7	1.85	241	13.6
TDS	mg/L	207	435	307	833	594	309	145	782	384
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	0.000891 J	0.000972 J	<0.000508
Arsenic	mg/L	9.58e-005 J	0.000862	0.00115	0.000936	0.000537	0.000318	0.00112	0.0105	0.00059
Barium	mg/L	0.334	0.0875	0.343	0.143	0.148	0.165	1.07	0.164	0.244
Beryllium	mg/L	<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
Chromium	mg/L	0.000675 J	0.000408 J	0.000381 J	0.000573 J	0.000422 J	0.000292 J	0.00146	0.000507 J	0.000403 J
Cobalt	mg/L	8.52e-005 J	<6.8e-005	<6.8e-005	0.000114 J	<6.8e-005	<6.8e-005	0.000433	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	1.07 U	0.667 U	1.42 U	1.53	0.337 U	0.895 U	0.989 U	1.13 U	1.47
Lead	mg/L	0.00016 J	<6.8e-005	<6.8e-005	0.000233	<6.8e-005	<6.8e-005	0.000476	<6.8e-005	0.000236
Lithium	mg/L	0.0326	0.0678	0.03	0.152	0.213	0.031	0.0398	0.0986	0.0657
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00069	0.00157	0.00271	0.00438	0.0367	0.00269	0.00302	0.0311	0.00221
Selenium	mg/L	<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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" -Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 7.
Second Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
7/27/2021-8/12/2021

Analyte	Units	GS-AP-MW-17V	GS-AP-MW-21V	GS-AP-PZ-22	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-25HA
		08/02/2021	08/11/2021	08/03/2021	07/27/2021	08/03/2021	08/10/2021	08/09/2021	08/04/2021	08/12/2021
Appendix III										
Boron	mg/L	0.0368 J	0.0631 J	0.0478 J	0.0474 J	0.0721 J	<0.03	0.063 J	0.447	0.13
Calcium	mg/L	33	13.8	16	76.8	44.2	27.2	1.75	17.7	1.79
Chloride	mg/L	3.12	162	2.67	2.48	2.94	2.87	7.85	13.8	36.3
Fluoride	mg/L	0.276	0.41	0.419	0.118	0.198	0.152	0.204	0.353	2.01
pH_Field	SU	7.65	8.28	7.74	5.65	6.94	6.69	8.5	7.68	8.78
Sulfate	mg/L	10.2	137	74.7	336	6.21	4.73	3.49	74	125
TDS	mg/L	333	712	414	581	191	271	436	407	967
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.000135 J	0.00161	0.00296	0.0474	0.00021	0.000194 J	0.000626	0.00317	0.00888
Barium	mg/L	0.353	0.0535	0.0953	0.0148	1.04	0.765	0.0407	0.264	0.2
Beryllium	mg/L	<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
Chromium	mg/L	0.000323 J	0.00134	0.000242 J	<0.000203	0.000447 J	0.000372 J	0.000499 J	0.000223 J	0.000354 J
Cobalt	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	0.000504	0.000237	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.738 U	0.782 U	0.195 U	0.124 U	1.3 U	1.05 U	0.706 U	1.02 U	0.129 U
Lead	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
Lithium	mg/L	0.056	0.048	0.0685	0.0308	0.0249	0.0932	0.0633	0.0809	0.0558
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00206	0.0394	0.00352	0.000904	0.00054	0.000157 J	0.00412	0.0377	0.0125
Selenium	mg/L	<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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" -Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



Table 7.
Second Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
7/27/2021-8/12/2021

Analyte	Units	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-40H	GS-AP-MW-41HS
		08/02/2021	08/02/2021	08/10/2021	07/27/2021	07/27/2021	07/28/2021	08/04/2021	08/10/2021	07/28/2021
Appendix III										
Boron	mg/L	0.06 J	<0.03	0.0393 J	0.0417 J	0.108	<0.03	0.0449 J	<0.03	1.09
Calcium	mg/L	43.8	4.6	3.59	30.5	102	2.51	5.78	197	45.1
Chloride	mg/L	4.28	38.5	36.6	75.3	386	16.7	59.8	28	8.34
Fluoride	mg/L	1.49	0.191	0.218	0.214	0.366	0.207	0.31	0.113	0.172
pH_Field	SU	7.27	8.69	8.35	7.59	7.32	8.45	8.37	6.56	6.86
Sulfate	mg/L	201	35.1	45.6	100	1580	20.7	83.7	661	103
TDS	mg/L	602	332	379	472	2930	302	449	1240	283
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.003	0.000293	0.000575	0.00143	0.00179	0.00024	0.00246	0.000457	0.000383
Barium	mg/L	0.0965	0.102	0.0475	0.46	0.0649	0.0492	0.0905	0.0358	0.0445
Beryllium	mg/L	<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
Chromium	mg/L	0.000354 J	0.000287 J	0.000268 J	0.000283 J	0.000499 J	0.000415 J	0.000317 J	0.00032 J	0.000311 J
Cobalt	mg/L	0.000217	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	0.0011	0.000294
Combined Radium 226 + 228	pCi/L	1.8	1.48 U	0.445 U	0.408 U	0.732 U	0.0525 U	1.13	0.91 U	0.759 U
Lead	mg/L	0.000166 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0582	0.0411	0.0466	0.0563	0.205	0.0722	0.0455	0.0567	0.178
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00394	0.00486	0.0858	0.00574	0.0143	0.0017	0.017	0.00171	0.0044
Selenium	mg/L	<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

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. "<MDL" -Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids



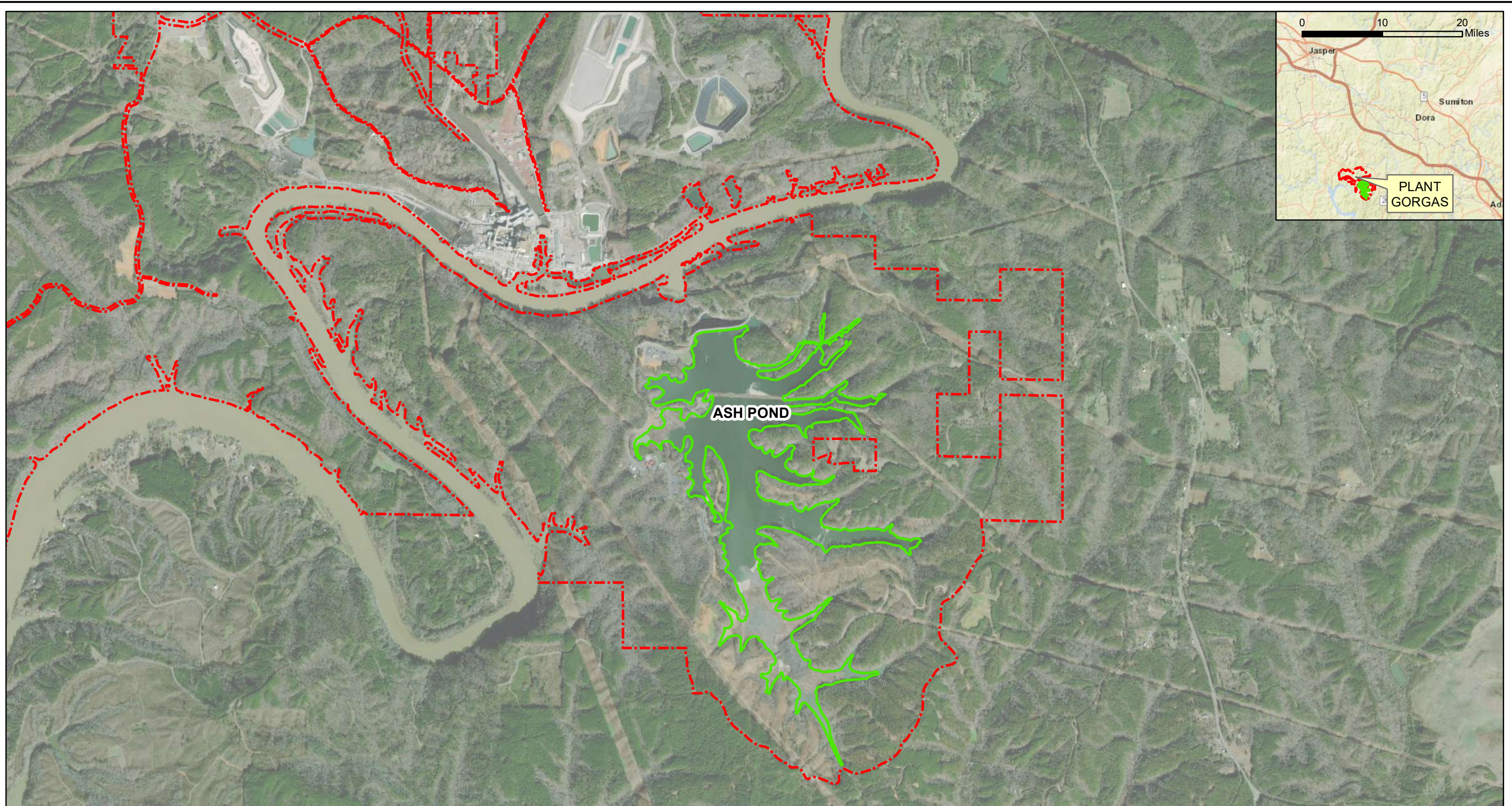
Table 7.
Second Semi-Annual Monitoring Event Analytical Summary
Plant Gorgas Ash Pond
7/27/2021-8/12/2021

Analyte	Units	GS-AP-MW-38H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43HO	GS-AP-MW-44HO
		08/04/2021	08/03/2021	08/04/2021	08/04/2021	07/27/2021
Appendix III						
Boron	mg/L	0.0479 J	1.48	0.0578 J	0.126	0.0429 J
Calcium	mg/L	12.2	57.1	133	4.58	1.46
Chloride	mg/L	33.1	6.07	9.75	69.4	33.4
Fluoride	mg/L	0.305	0.15	0.203	0.289	0.254
pH_Field	SU	7.75	6.97	6.41	8.75	9.04
Sulfate	mg/L	32.3	94.1	372	301	38.6
TDS	mg/L	368	307	740	855	510
Appendix IV						
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	0.00287	0.00289	0.00846	0.00125	0.000343
Barium	mg/L	0.359	0.045	0.0256	0.102	0.0758
Beryllium	mg/L	<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
Chromium	mg/L	<0.000203	0.000251 J	0.000262 J	0.00031 J	<0.000203
Cobalt	mg/L	<6.8e-005	0.000849	0.000616	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.844 U	0.453 U	0.186 U	0.949 U	0.48 U
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	0.000265	<6.8e-005
Lithium	mg/L	0.0672	0.369	0.0348	0.0706	0.0568
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	0.00377	0.0286	0.00169	0.00385	0.00361
Selenium	mg/L	<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

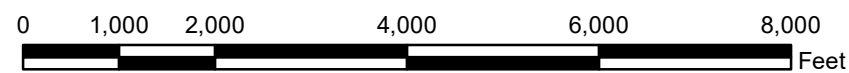
Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit. Values are displayed as less than the PQL with a J.
2. "<MDL" -Non-Detect and indicates the result was not detected above the MDL.
3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration) data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. TDS - Total Dissolved Solids

Figures



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

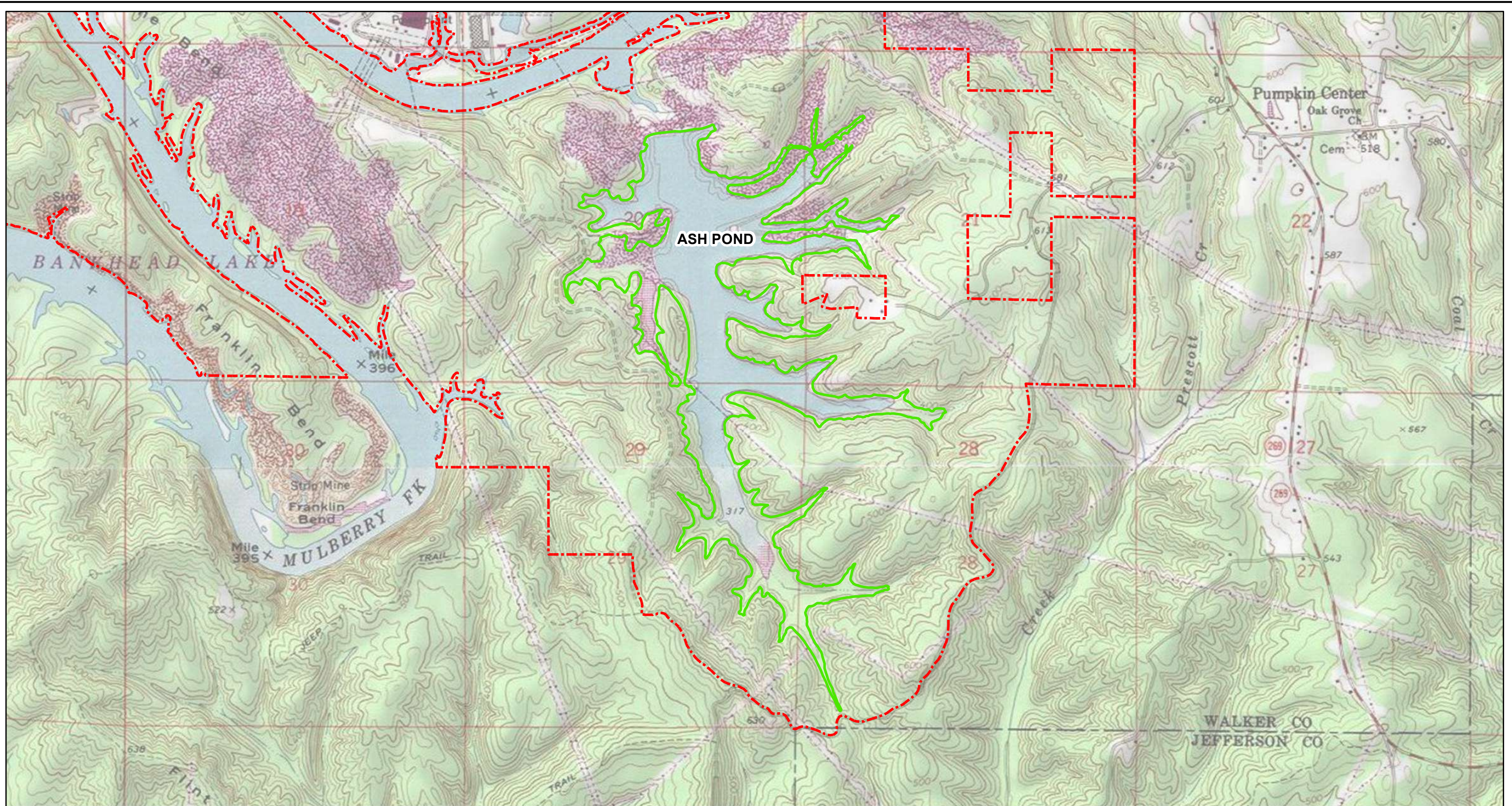


SCALE	1:24,000
DATE	12/10/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE
**SITE LOCATION MAP
 PLANT GORGAS ASH POND**

FIGURE NO
FIGURE 1





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

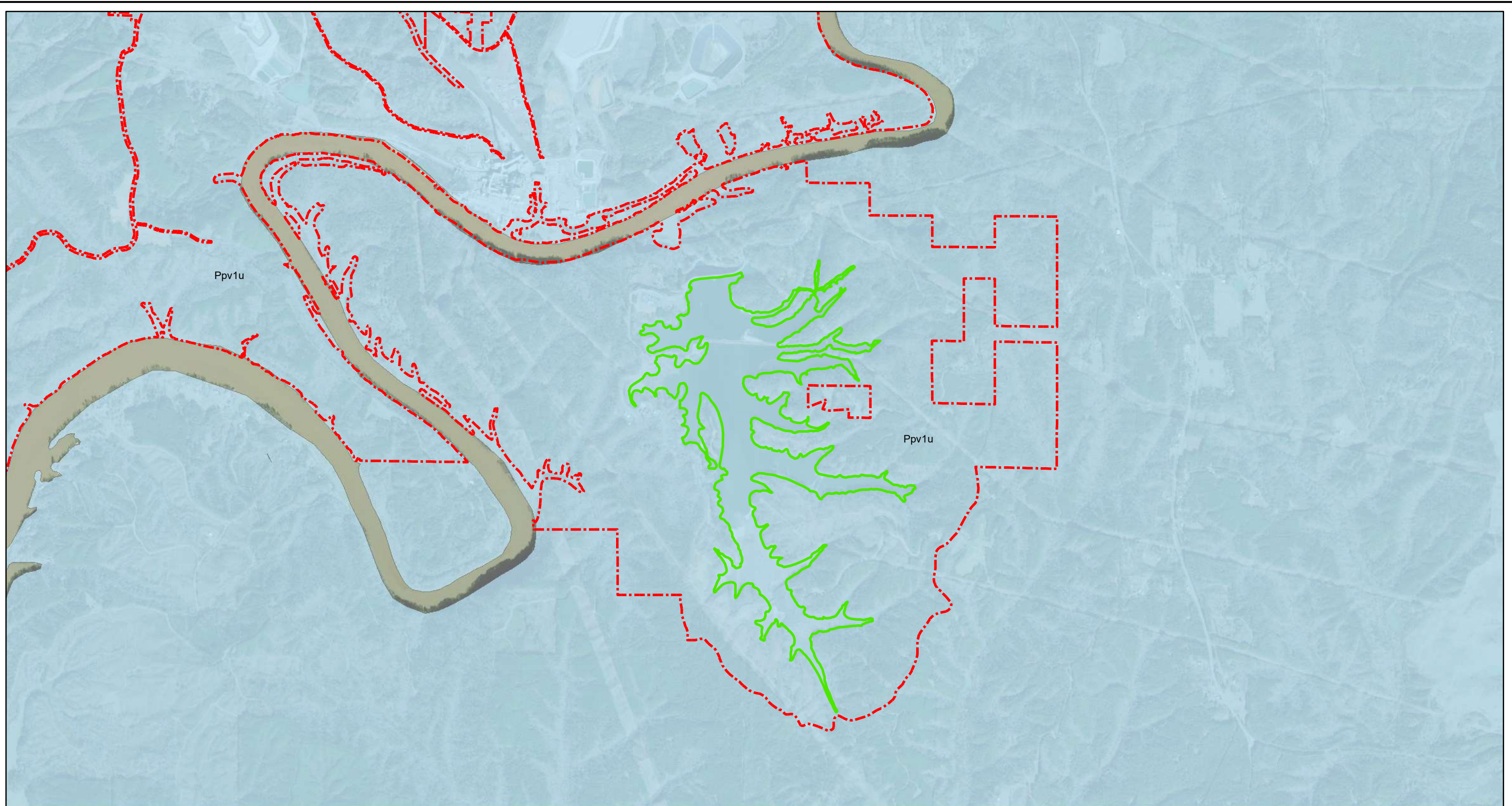


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DRAWING TITLE
**SITE TOPOGRAPHIC MAP
 PLANT GORGAS ASH POND**

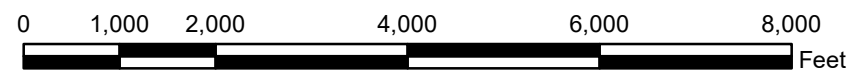
FIGURE NO
FIGURE 2





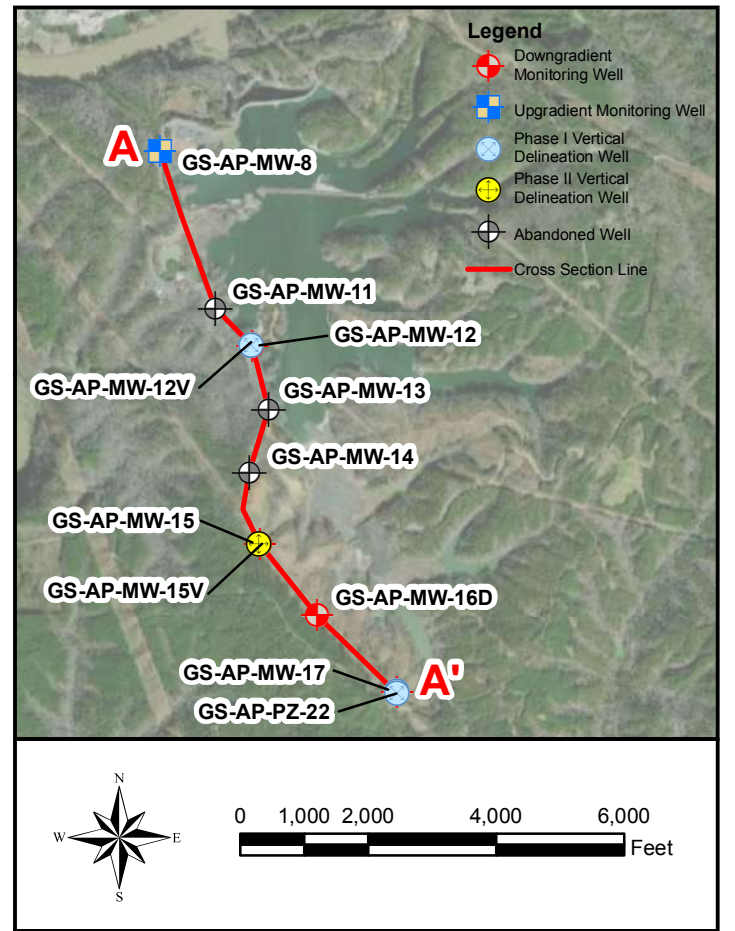
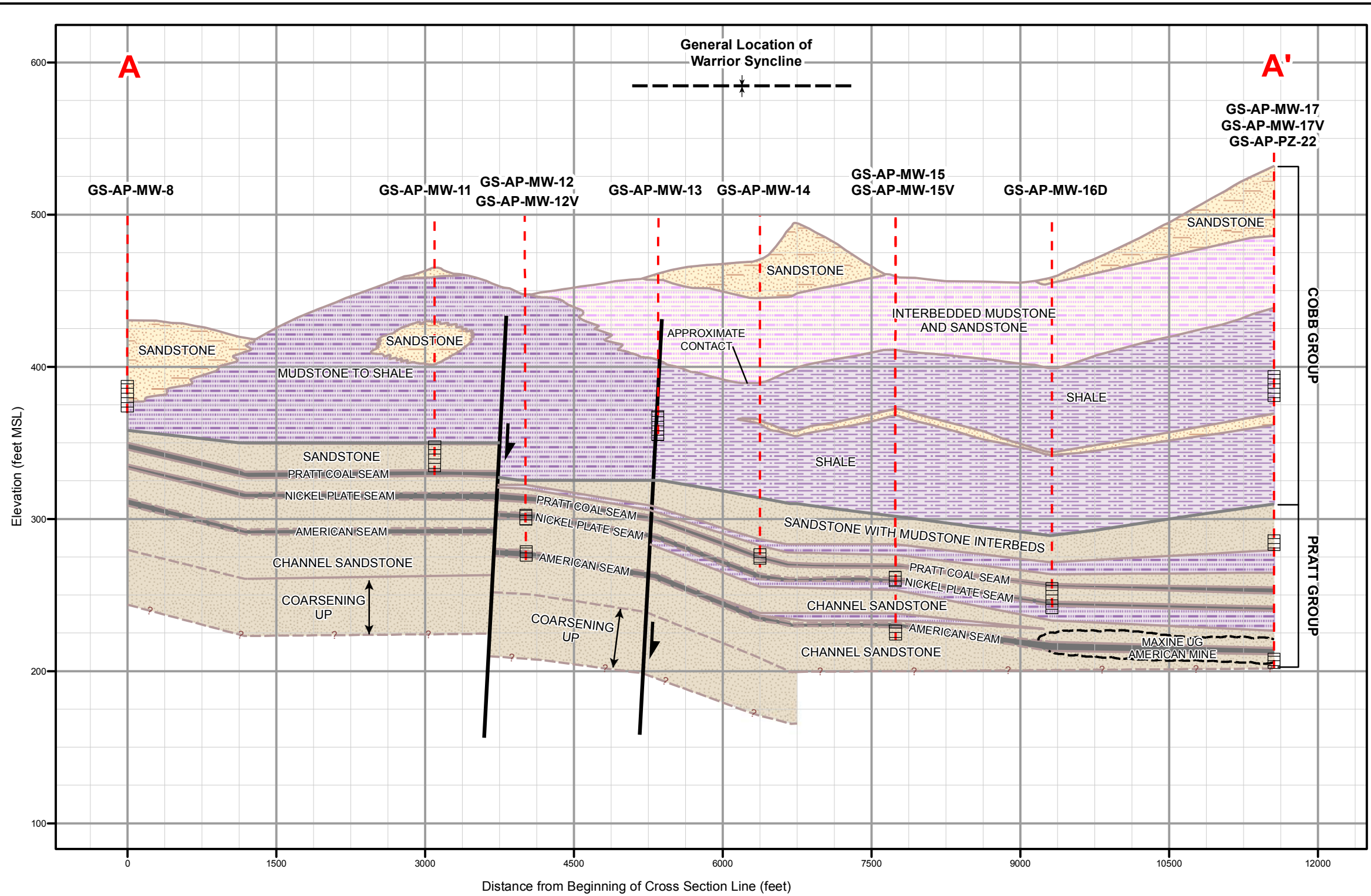
Legend

- 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

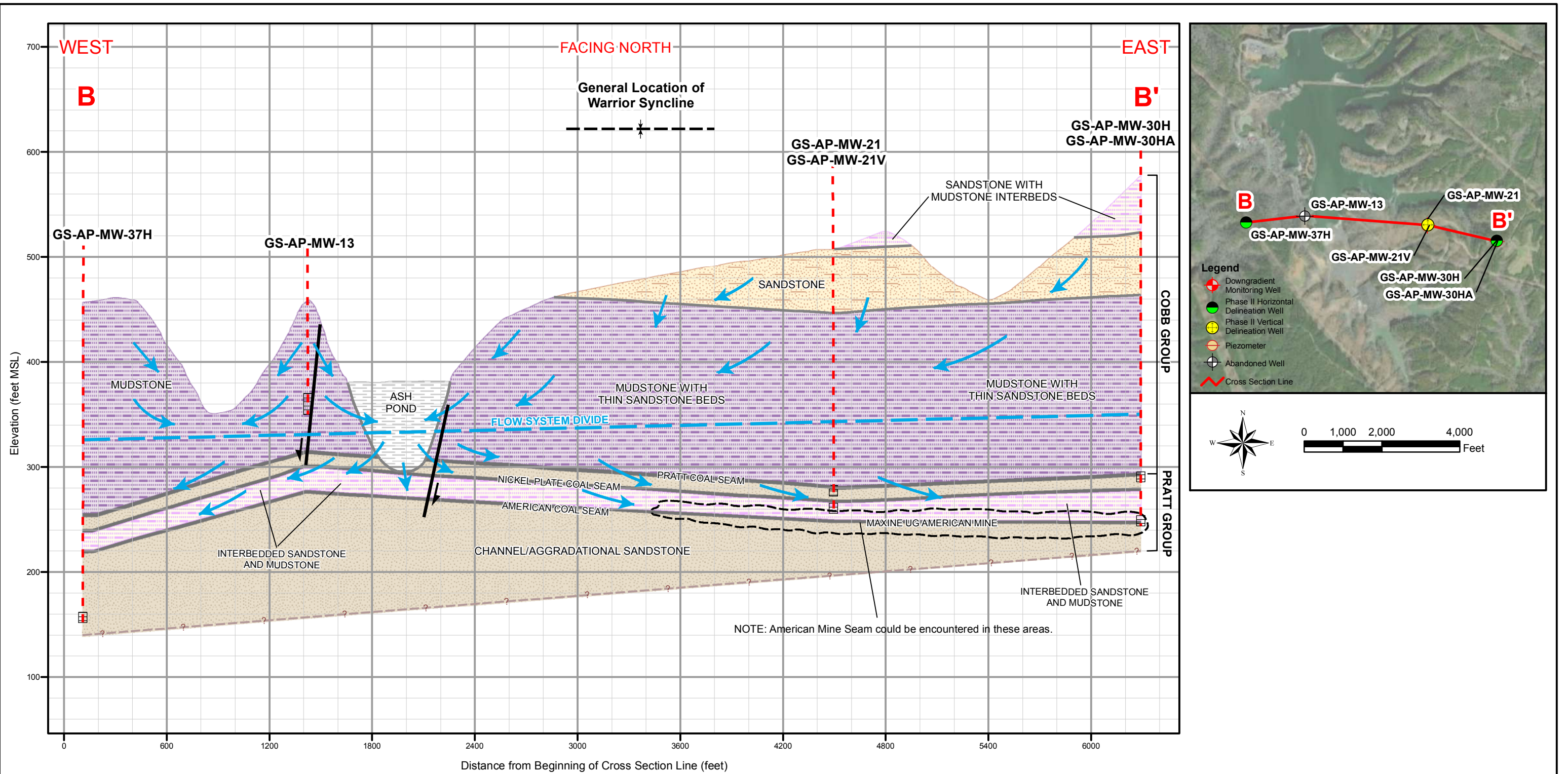
DRAWING TITLE	
SITE GEOLOGIC MAP PLANT GORGAS ASH POND	
FIGURE NO	Southern Company
FIGURE 3	



Legend		Geologic Units	
	Screen Interval		Shale
	Monitoring Well Location		Mudstone to Shale
	Group Boundary		Interbedded Mudstone and Sandstone
	Strata Boundary		Sandstone
	Inferred Strata Boundary		Channel Sandstone
	Fault		Coal
	Mine		
	Syncline		

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	DRAWING TITLE	
DATE	9/22/2020	GEOLOGIC CROSS SECTION A - A' PLANT GORGAS ASH POND	
DRAWN BY	KWR		
CHECKED BY	GBD	FIGURE NO	FIGURE 4A
		Southern Company	



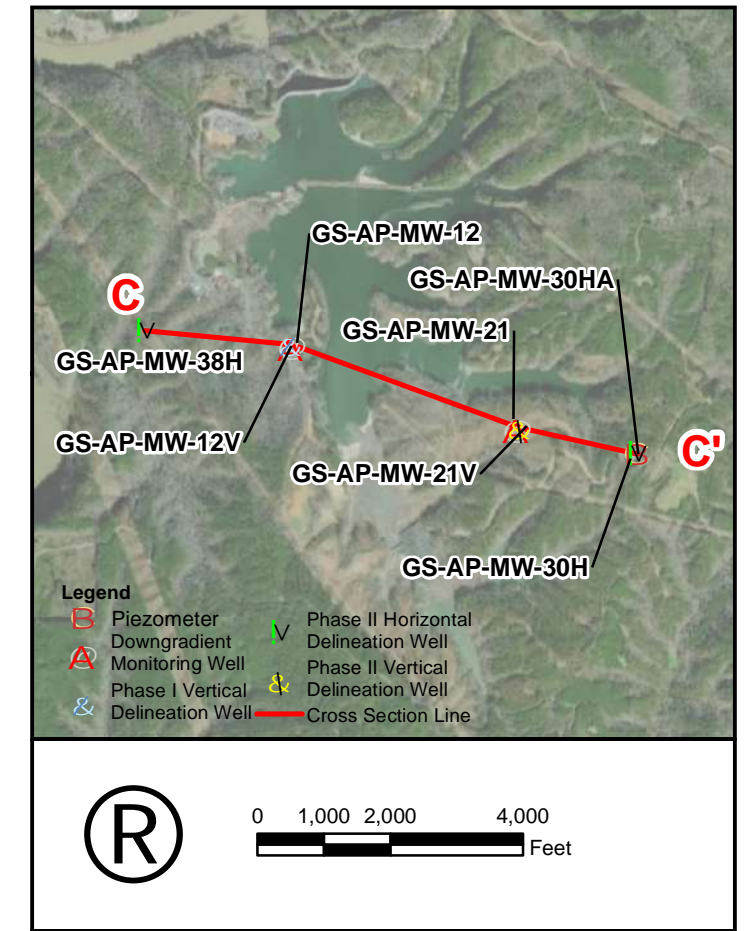
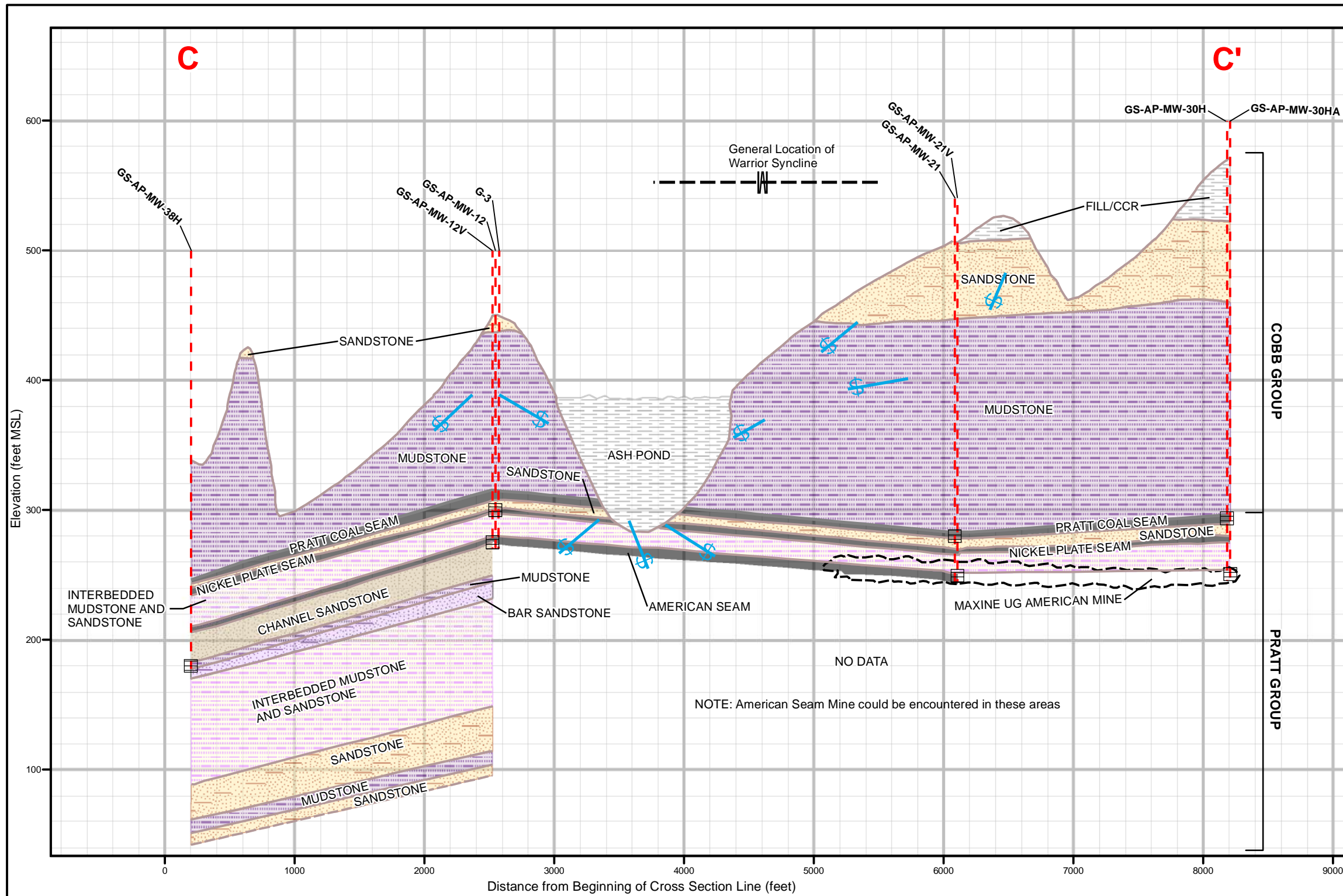
- Legend**
- Cross Section Line
 - - - Monitoring Well Location
 - Screen Interval
 - Groundwater Flow Direction
 - - - Flow System Divide
 - Group Boundary
 - Strata Boundary
 - Fault
 - Mine
 - Inferred Boundary
 - ⊕ Syncline

- Geologic Units**
- Ash Pond (Fill)
 - Mudstone with Thin Sandstone Interbeds
 - Sandstone with Mudstone Interbeds
 - Sandstone
 - Channel/Aggradational Sandstone
 - 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.

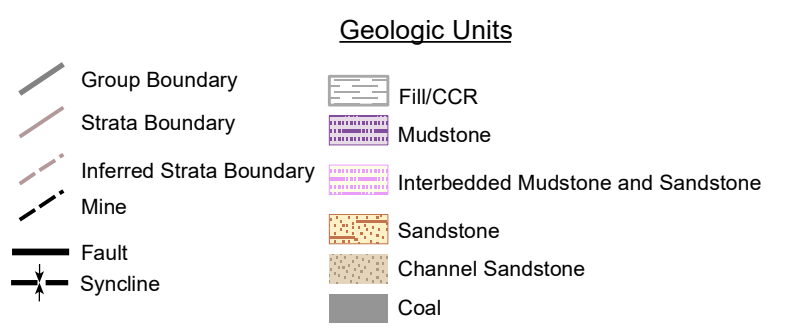
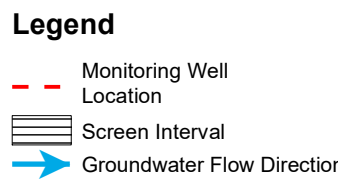
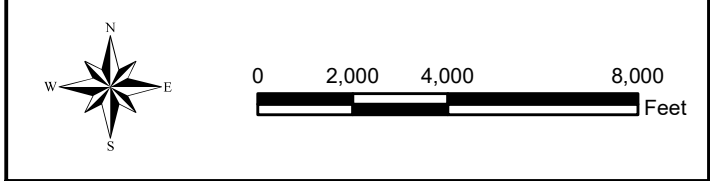
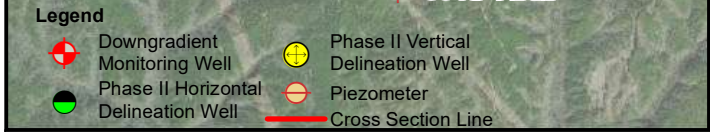
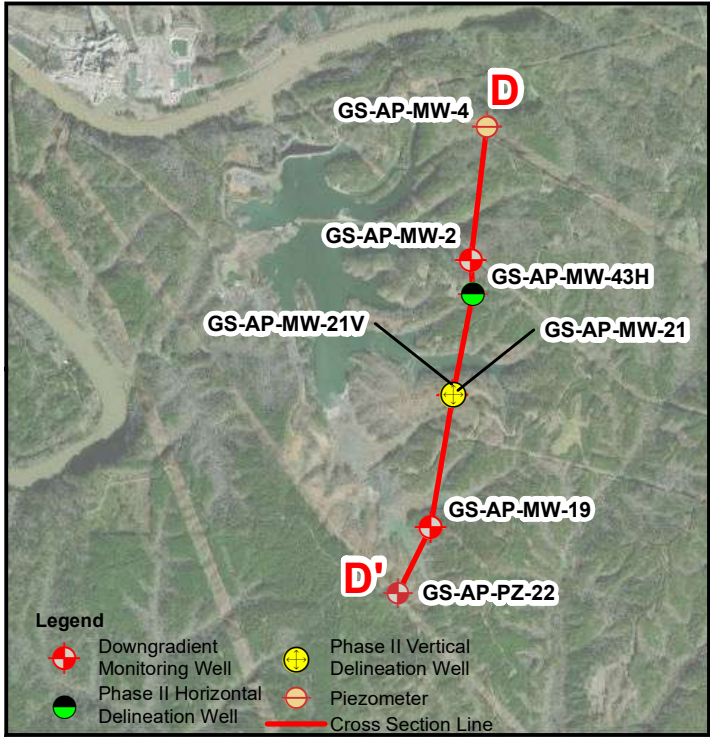
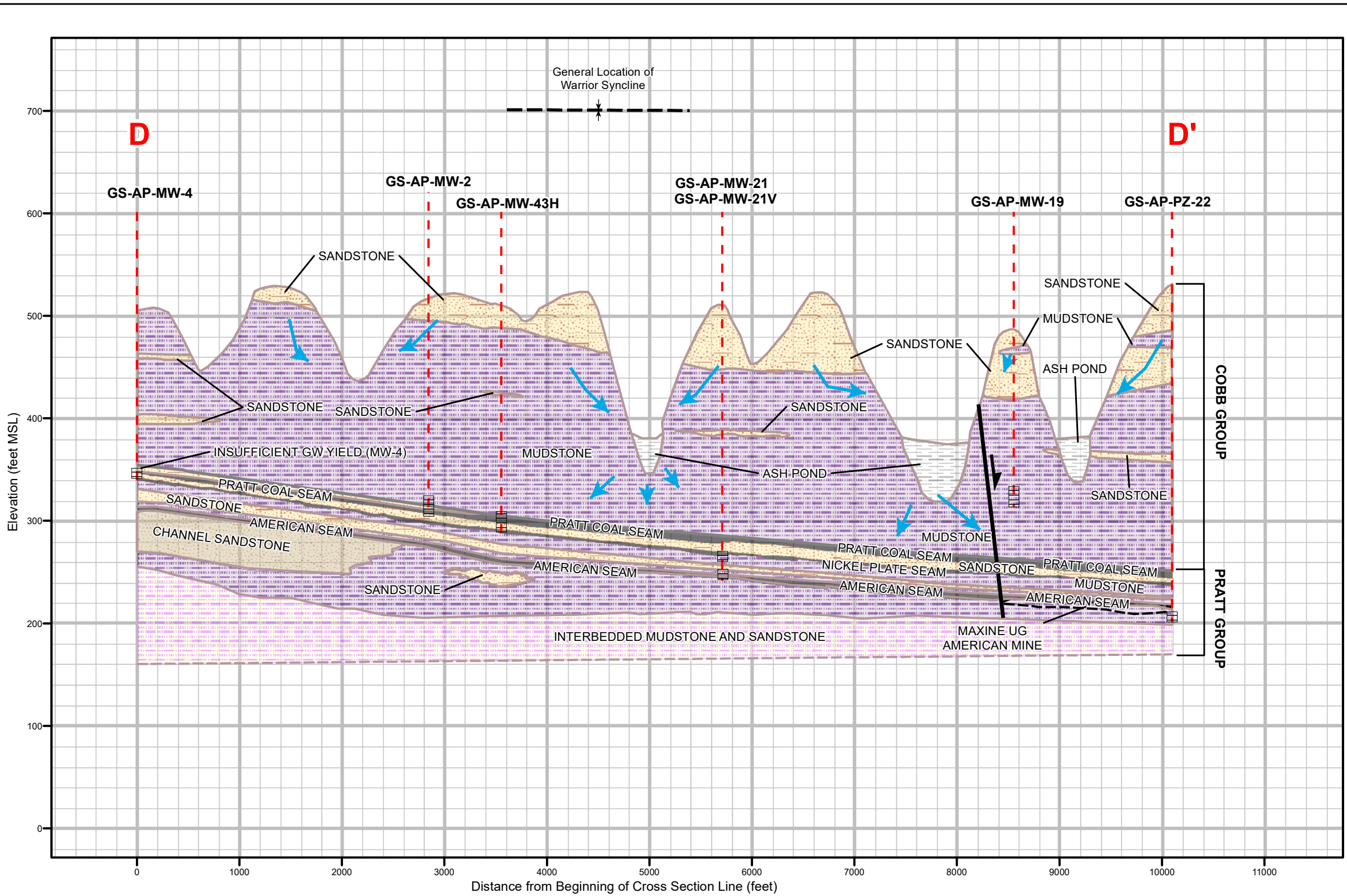
SCALE	As Shown
DATE	9/29/2020
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
GEOLOGIC CROSS SECTION B - B' PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 4B
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.

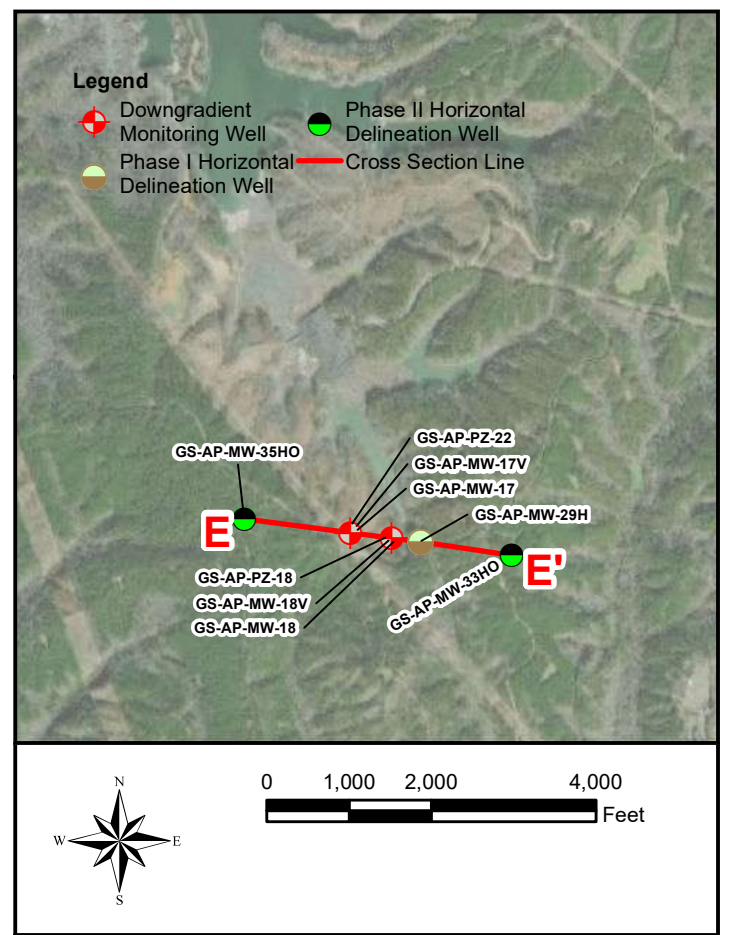
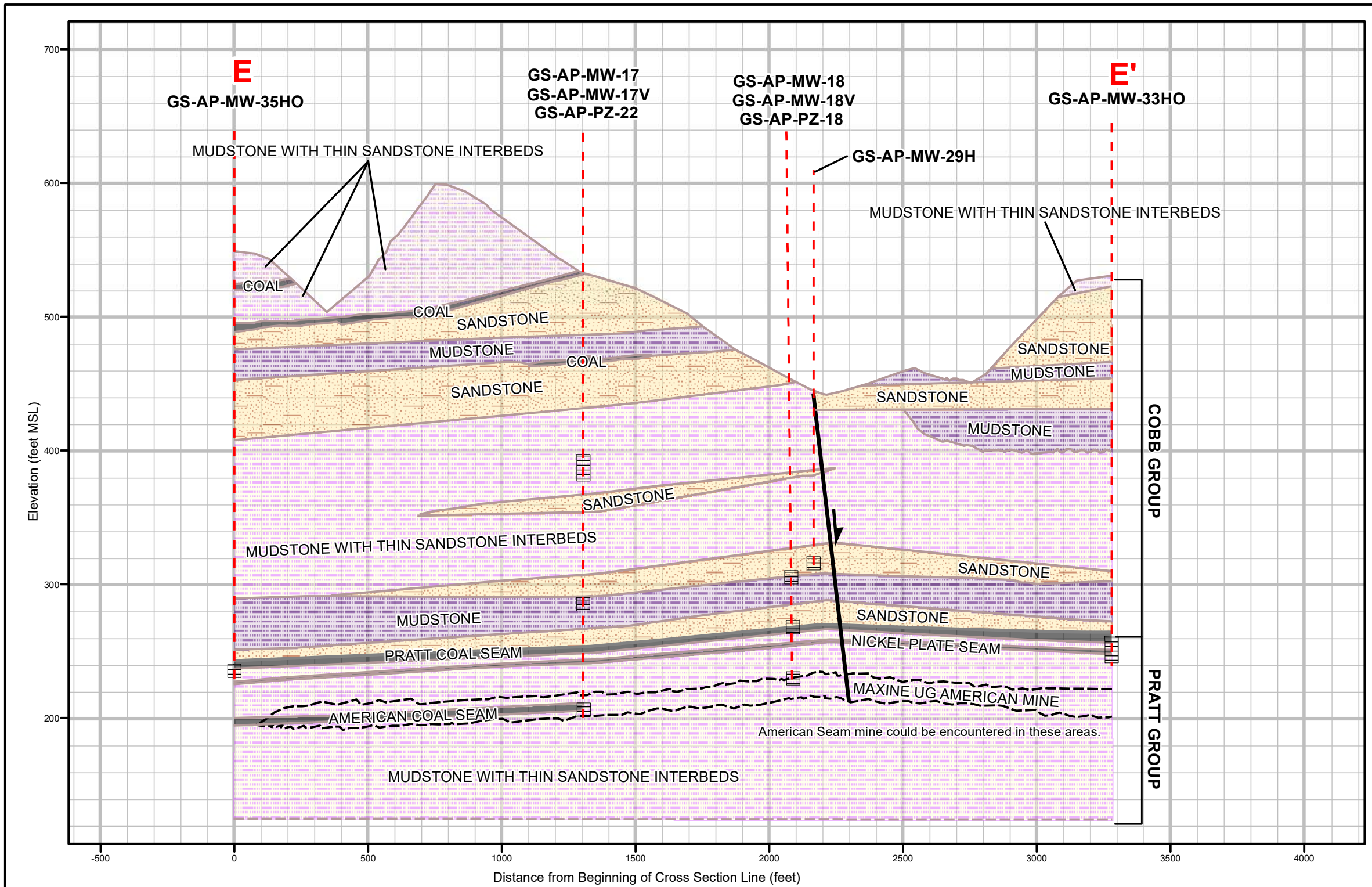
Legend 	Geologic Units Fill/CCR Bar Sandstone Mudstone Interbedded Mudstone and Sandstone Sandstone Channel Sandstone Coal		SCALE As Shown	DRAWING TITLE GEOLOGIC CROSS SECTION C - C' PLANT GORGAS ASH POND
	DATE 9/15/2020	DRAWN BY MDM		
	CHECKED BY GBD	FIGURE NO FIGURE 4C		



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

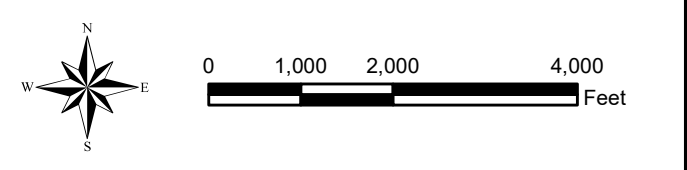
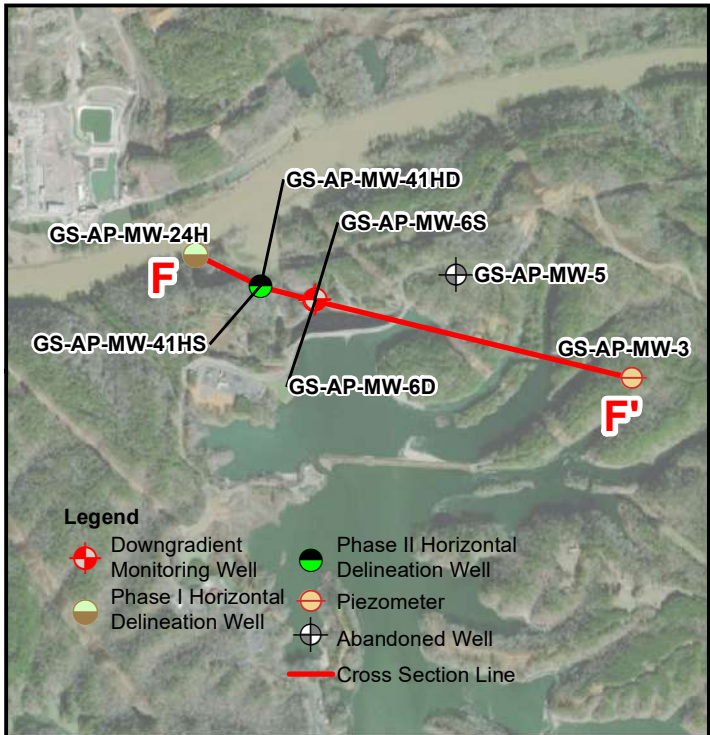
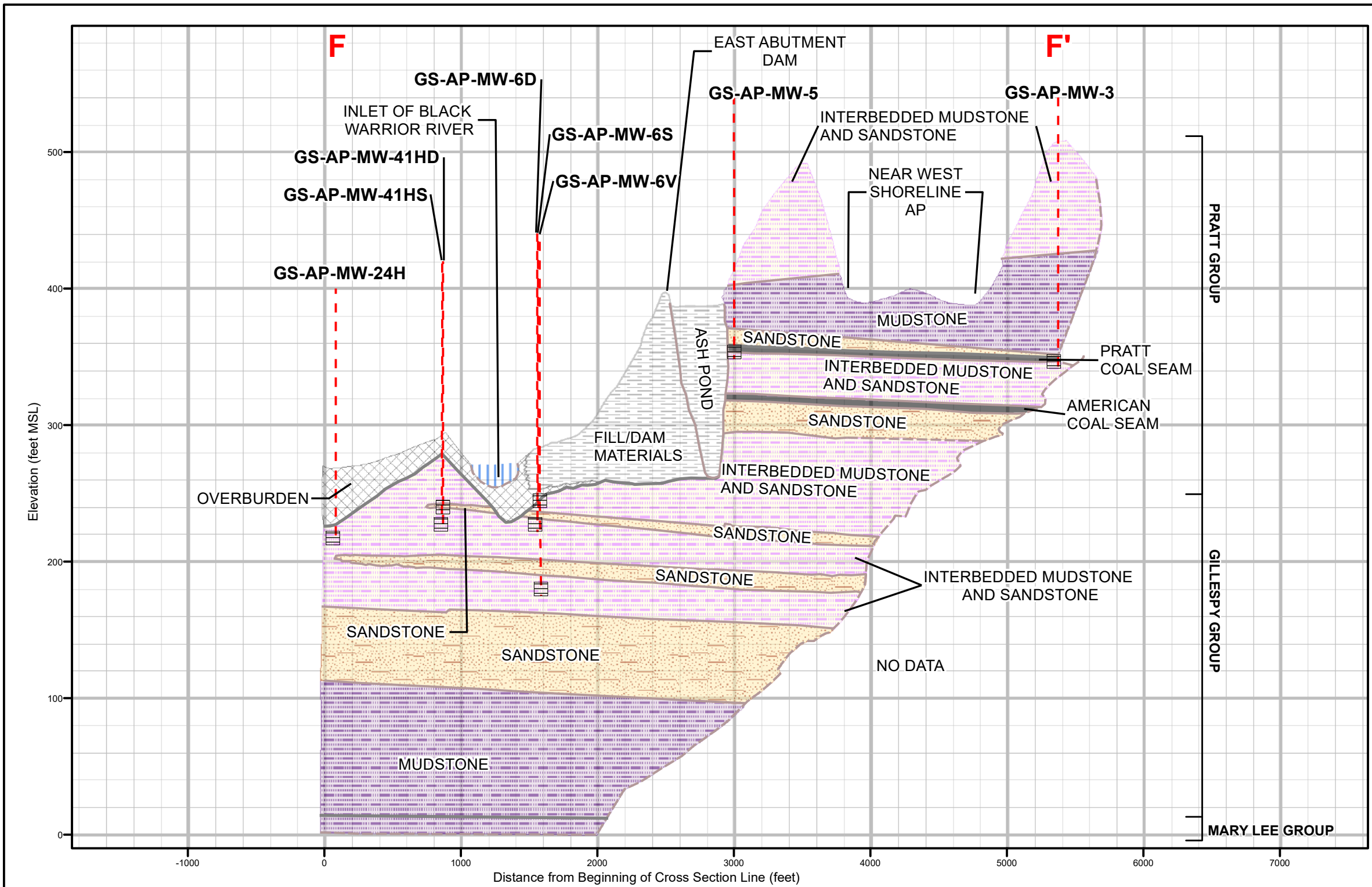
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GEOLOGIC CROSS SECTION D – D' PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 4D



Legend		Geologic Units		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.
	Monitoring Well Location		Mudstone	
	Screen Interval		Mudstone with Thin Sandstone Interbeds	
	Group Boundary		Sandstone	
	Strata Boundary		Coarse Sandstone	
	Inferred Strata Boundary		Coal	
	Mine			
	Fault			

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

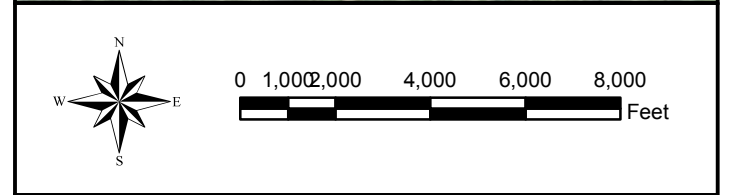
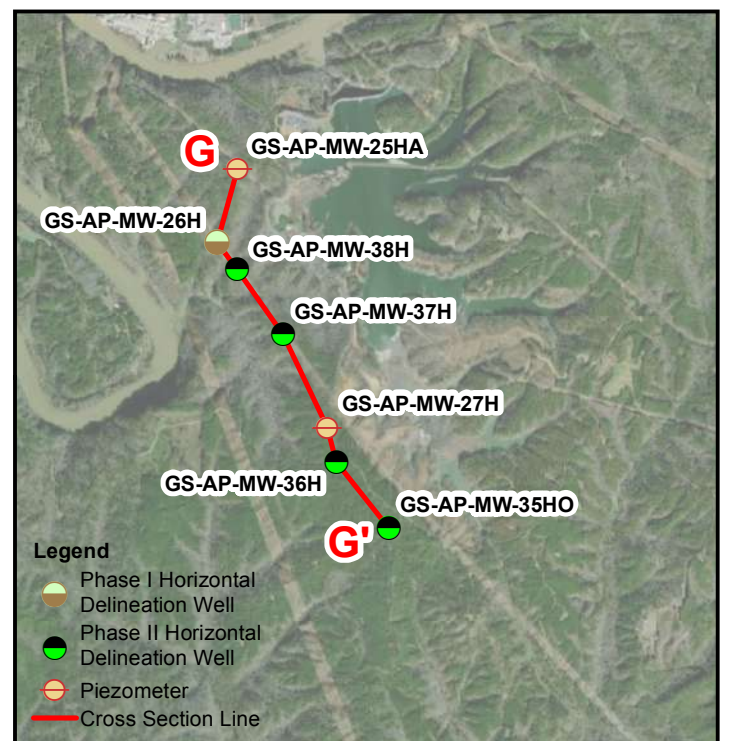
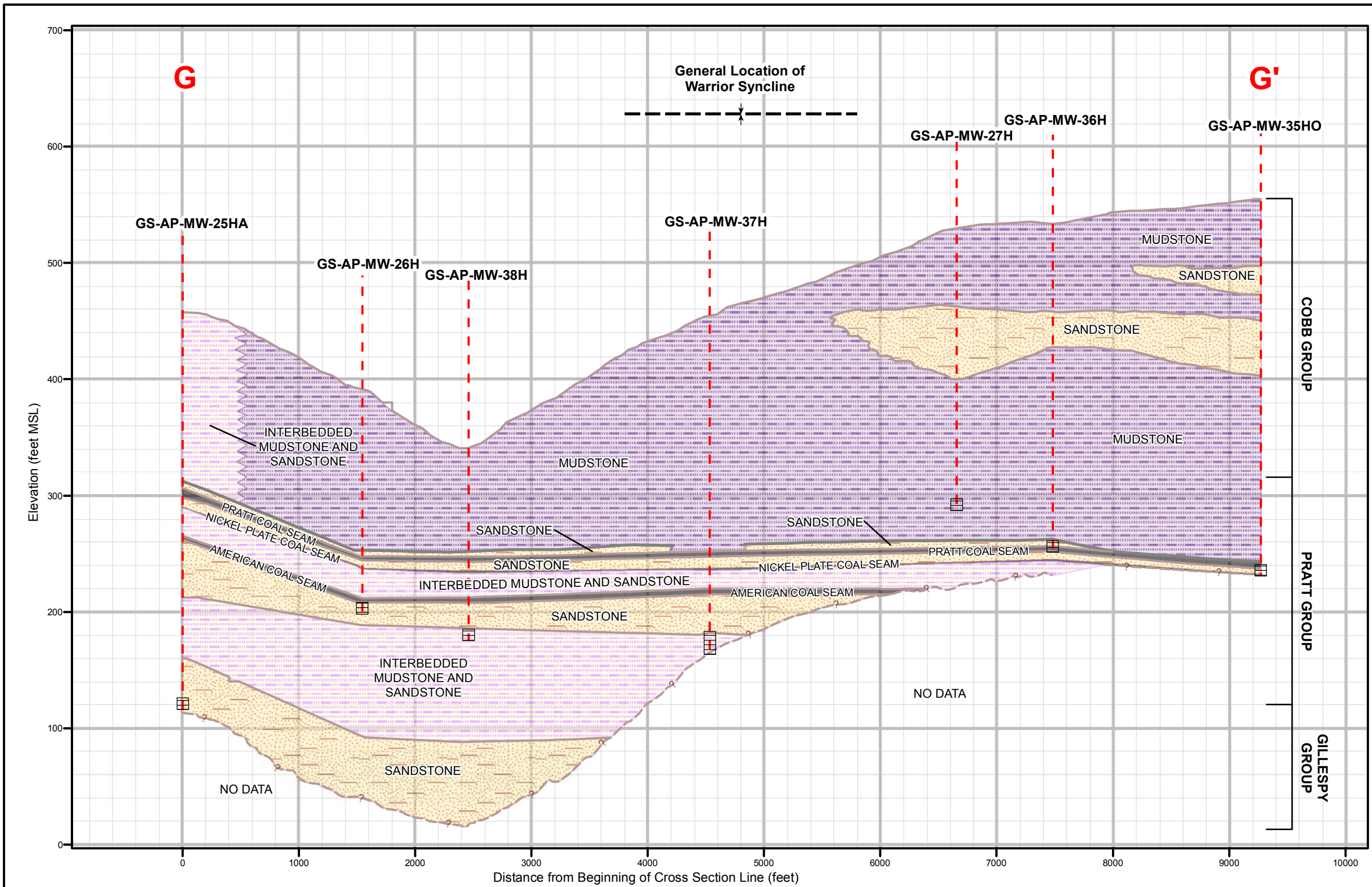
DRAWING TITLE	
GEOLOGIC CROSS SECTION E – E' PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 4E



- 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.

Legend		Geologic Units	
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	DRAWING TITLE	
DATE	9/29/2020	GEOLOGIC CROSS SECTION F - F' PLANT GORGAS ASH POND	
DRAWN BY	MDM		
CHECKED BY	GBD	FIGURE NO	Southern Company
		FIGURE 4F	



Legend

	Screen Interval
	Monitoring Well Location
	Group Boundary
	Strata Boundary
	Inferred Strata Boundary
	Syncline

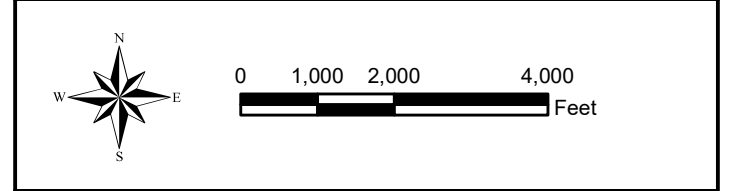
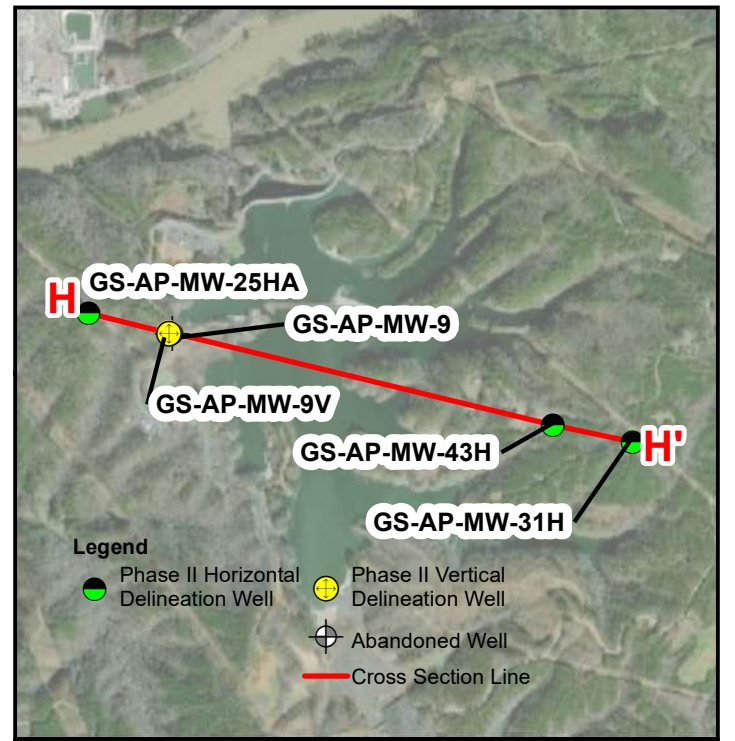
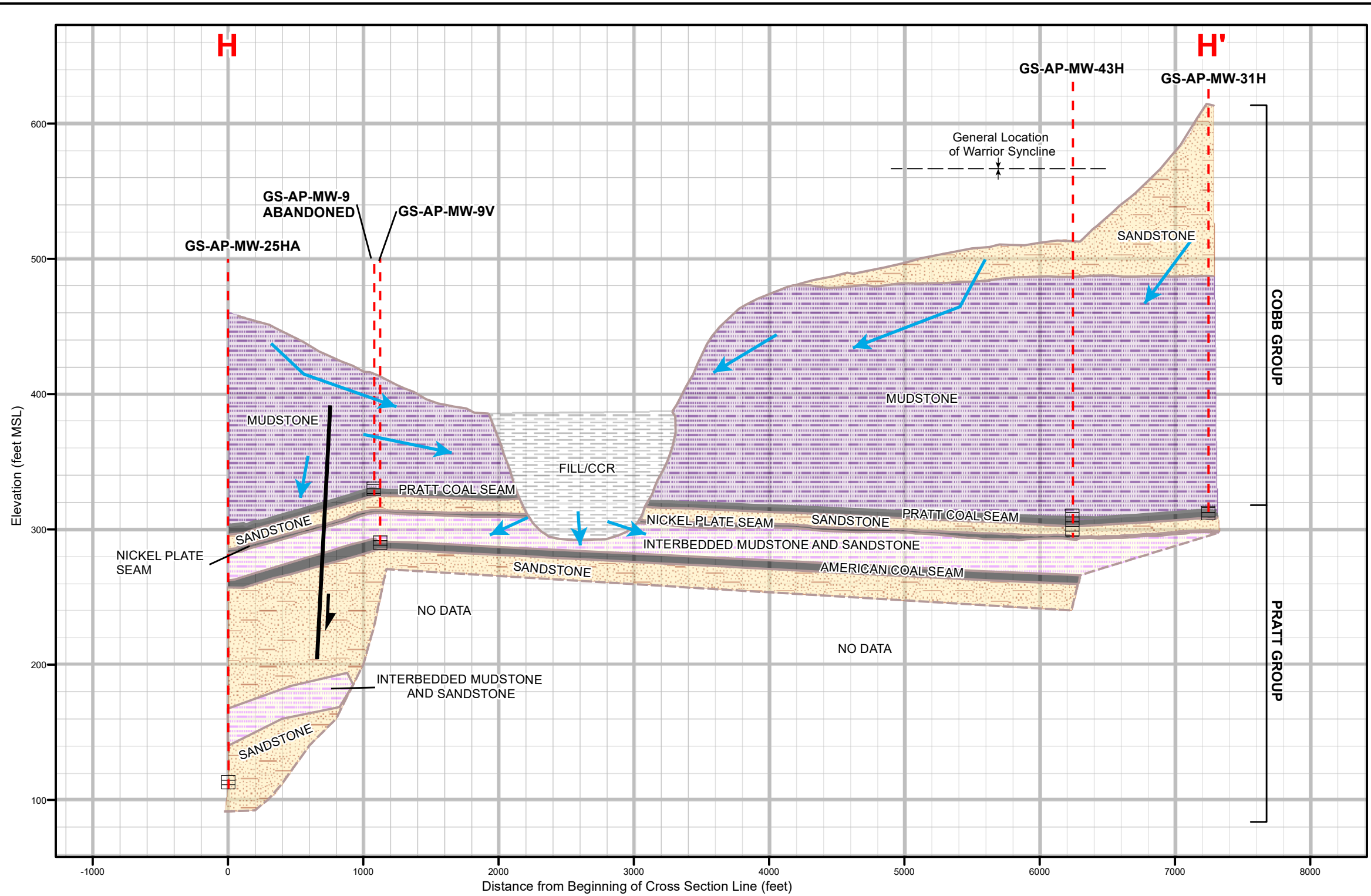
Geologic Units

	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	FIGURE 4G

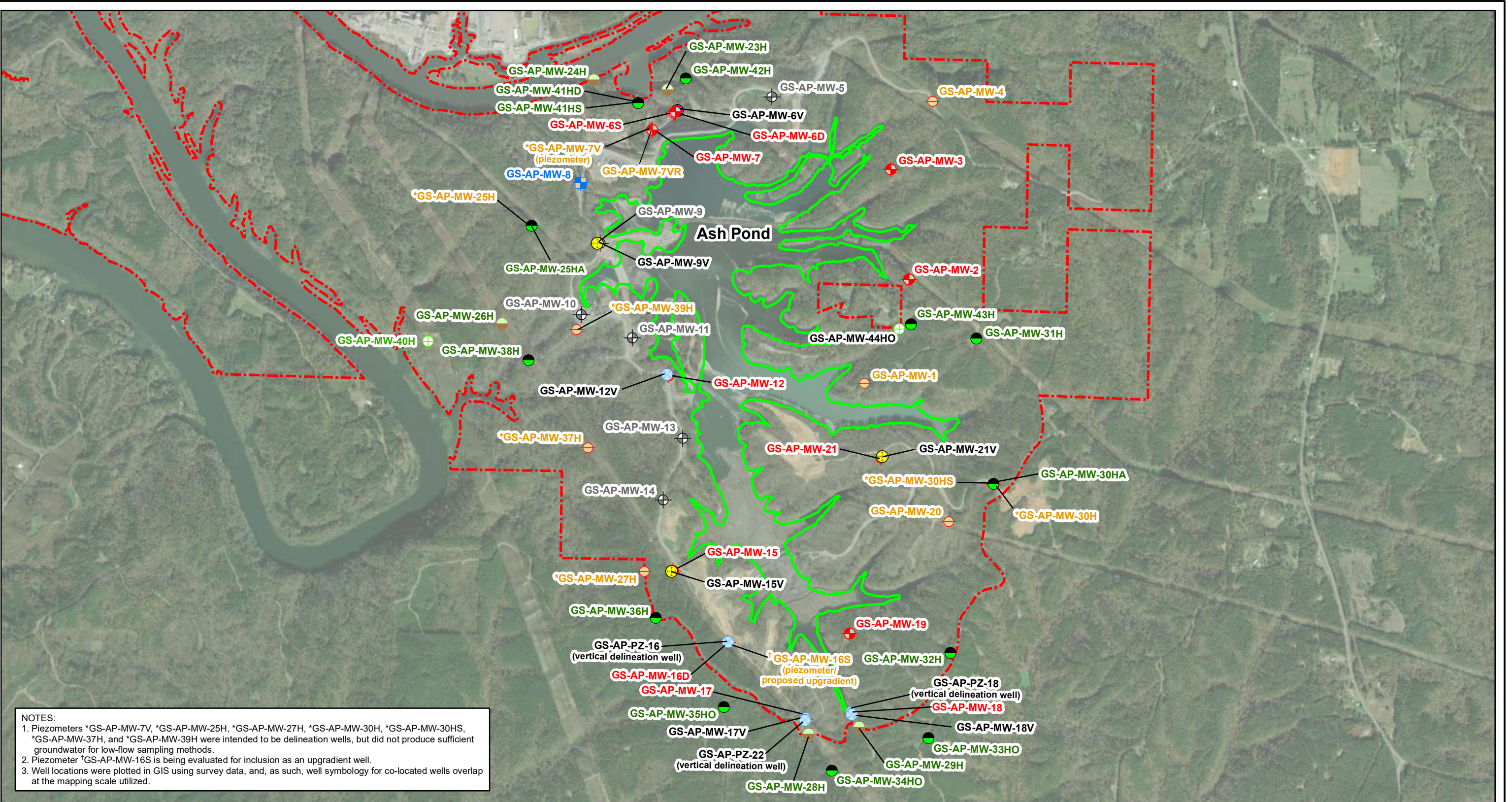


Notes:
 1. Stratigraphic layers were correlated using a combination of boring data and gamma logs.
 2. Elevation data are reported using feet above Mean Sea Level (MSL).


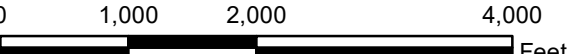




















Legend		Geologic Units	
	Screen Interval		Group Boundary
	Monitoring Well Location		Strata Boundary
	Groundwater Flow Direction		Inferred Strata Boundary
			Fault
			Syncline
	Coal		Fill/CCR
	Sandstone		Interbedded Mudstone and Sandstone
	Mudstone		Mudstone

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

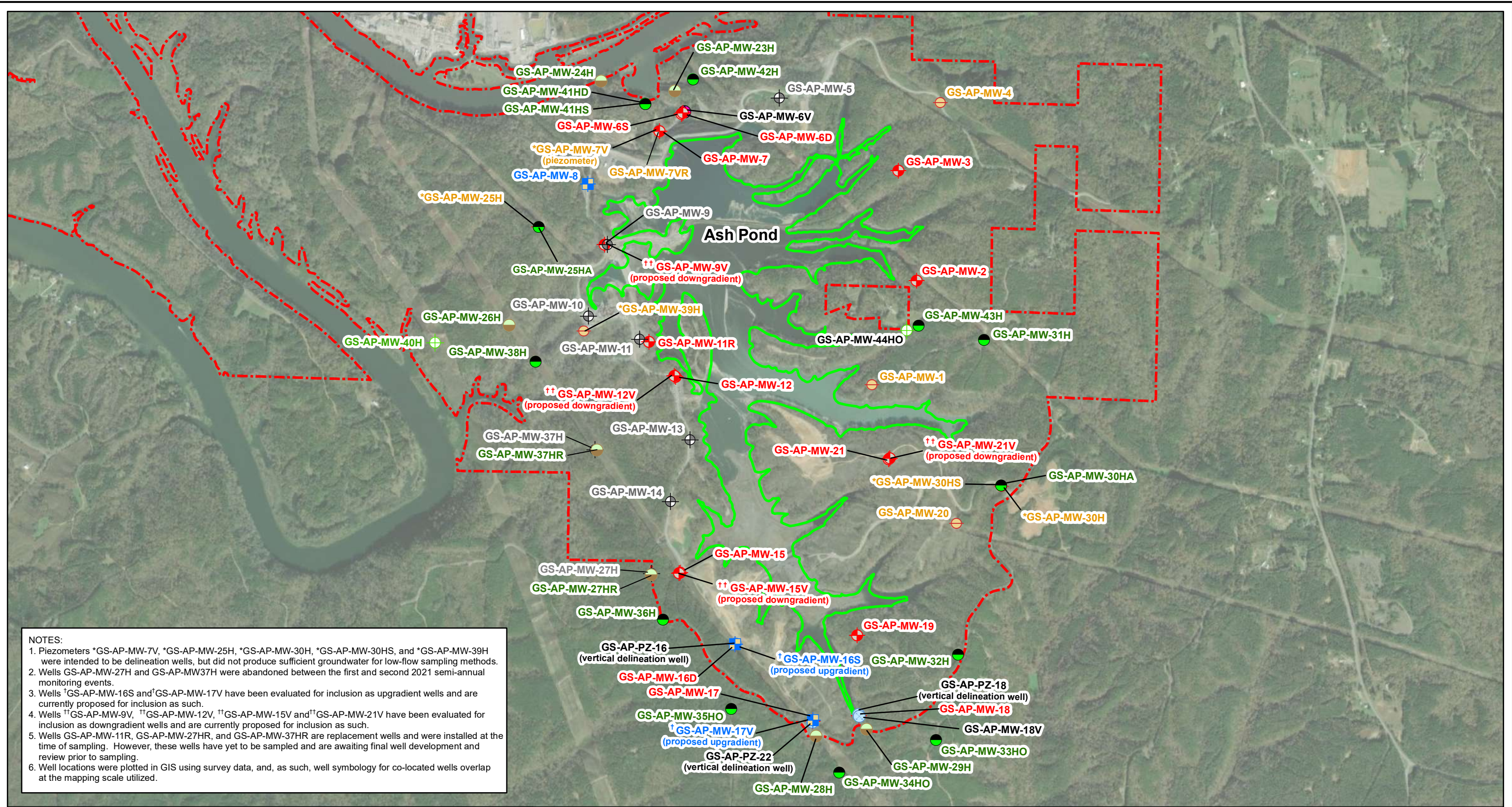
DRAWING TITLE	
GEOLOGIC CROSS SECTION H - H' PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 4H



NOTES:
 1. Piezometers *GS-AP-MW-7V, *GS-AP-MW-25H, *GS-AP-MW-27H, *GS-AP-MW-30H, *GS-AP-MW-30HS, *GS-AP-MW-37H, and *GS-AP-MW-39H were intended to be delineation wells, but did not produce sufficient groundwater for low-flow sampling methods.
 2. Piezometer †GS-AP-MW-16S is being evaluated for inclusion as an upgradient well.
 3. 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				 	SCALE 1:18000	DRAWING TITLE MONITORING WELL LOCATION MAP FIRST SEMI-ANNUAL MONITORING EVENT PLANT GORGAS ASH POND		
					DATE 12/10/2021	FIGURE NO FIGURE 5A		
					DRAWN BY KWR			
								CHECKED BY GBD
								
								

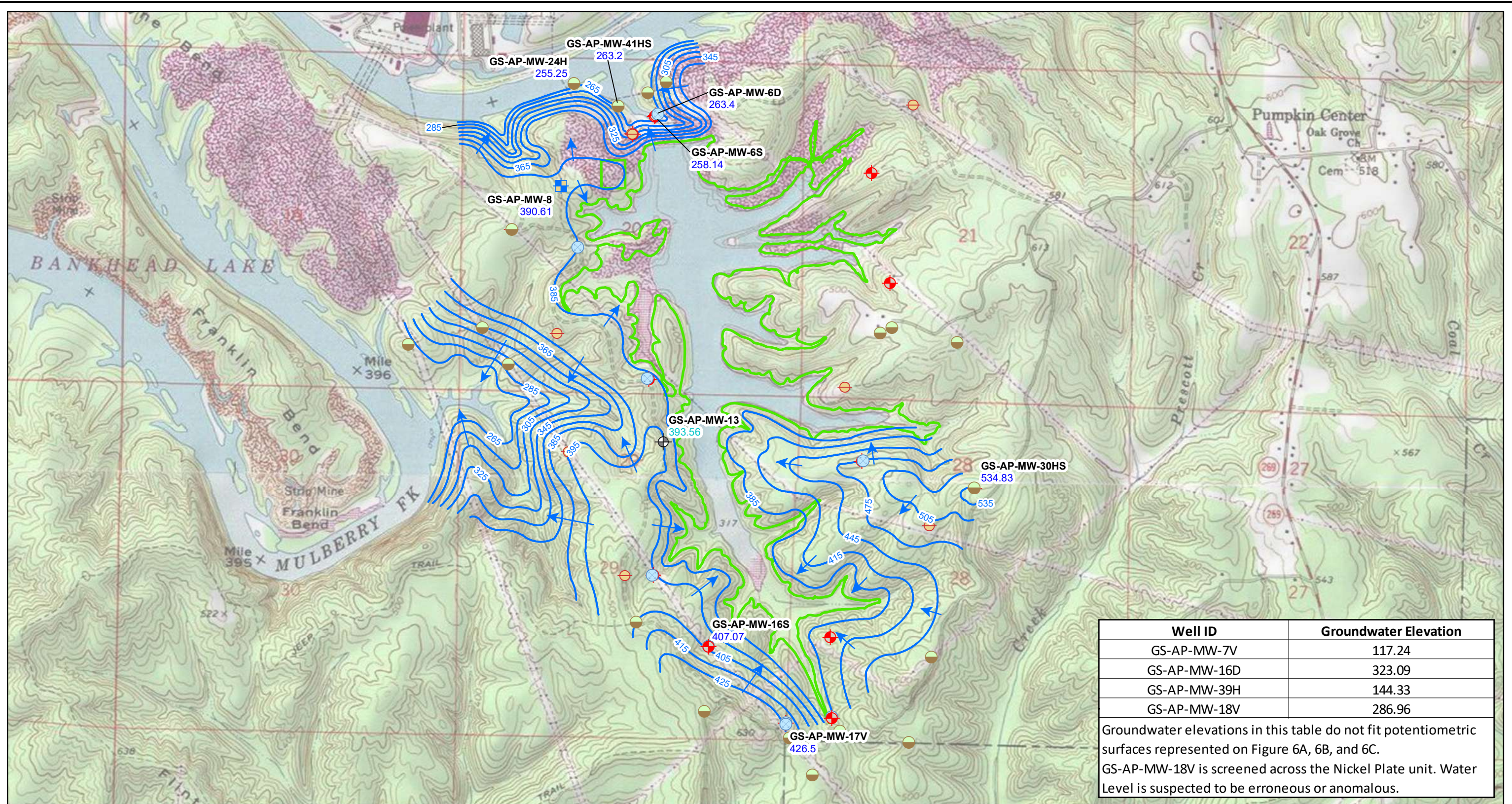




NOTES:

1. Piezometers *GS-AP-MW-7V, *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. Wells GS-AP-MW-27H and GS-AP-MW-37H were abandoned between the first and second 2021 semi-annual monitoring events.
3. Wells ¹GS-AP-MW-16S and ⁴GS-AP-MW-17V have been evaluated for inclusion as upgradient wells and are currently proposed for inclusion as such.
4. 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.
5. Wells GS-AP-MW-11R, GS-AP-MW-27HR, and GS-AP-MW-37HR are replacement wells and were installed at the time of sampling. However, these wells have yet to be sampled and are awaiting final well development and review prior to sampling.
6. 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				SCALE	1:18000	DRAWING TITLE MONITORING WELL LOCATION MAP SECOND SEMI-ANNUAL MONITORING EVENT PLANT GORGAS ASH POND	
Downgradient Monitoring Well Upgradient Monitoring Well Phase I Horizontal Delineation Well	Phase I Vertical Delineation Well Phase II Horizontal Delineation Well Phase II Vertical Delineation Well			Phase III Horizontal Delineation Well Phase III 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-9V Vertical Delineation Well ID GS-AP-MW-1 Piezometer ID GS-AP-MW-9 Abandoned Well ID		DATE	12/22/2021	FIGURE NO	FIGURE 5B Southern Company
				DRAWN BY	KWR		
				CHECKED BY	GBD		



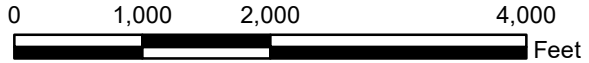
Well ID	Groundwater Elevation
GS-AP-MW-7V	117.24
GS-AP-MW-16D	323.09
GS-AP-MW-39H	144.33
GS-AP-MW-18V	286.96

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C. GS-AP-MW-18V is screened across the Nickel Plate unit. Water Level is suspected to be erroneous or anomalous.

Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Horizontal Delineation Well ; Horizontal Delineation
- Vertical Delineation Well
- Piezometer
- ⊕ Abandoned Well
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Ash Pond Boundary

GS-AP-MW-8 Well ID
390.61 Groundwater Elevation
393.56 Average Groundwater Elevation

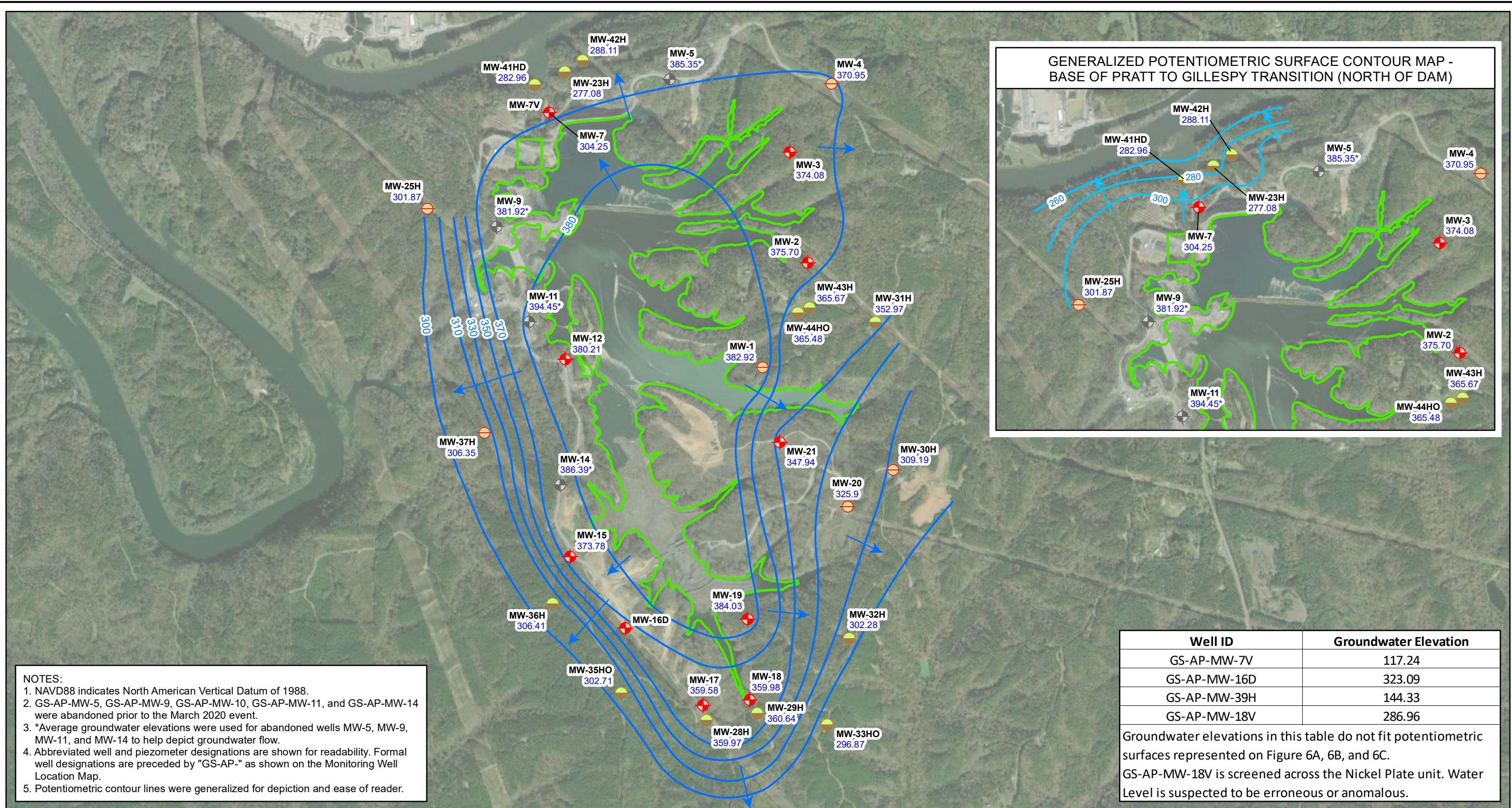


- NOTES:**
1. NAVD88 indicates North American Vertical Datum of 1988.
 2. Generalized water table potentiometric surface map based upon groundwater elevations, surface water elevations, and topography.
 3. Average groundwater elevation at abandoned well GS-AP-MW-13 used to refine 390 ft contour.
 4. NM indicates water level not measured.

SCALE	1:18000
DATE	5/12/2021
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE
 POTENTIOMETRIC SURFACE CONTOUR MAP
 (UPPER) WATER TABLE AQUIFER
 FEBRUARY 1, 2021
 PLANT GORGAS ASH POND

FIGURE NO
FIGURE 6A



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. *Average groundwater elevations were used for abandoned wells MW-5, MW-9, MW-11, and MW-14 to help depict groundwater flow.
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.
5. Potentiometric contour lines were generalized for depiction and ease of reader.

Well ID	Groundwater Elevation
GS-AP-MW-7V	117.24
GS-AP-MW-16D	323.09
GS-AP-MW-39H	144.33
GS-AP-MW-18V	286.96

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C. GS-AP-MW-18V is screened across the Nickel Plate unit. Water Level is suspected to be erroneous or anomalous.

Legend

- Downgradient Monitoring Well
- Horizontal Delineation Well
- Piezometer
- Abandoned Well
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Potentiometric Surface Contour (Base of Pratt to Gillespy Aquifer Transition)
- Approximate Groundwater Flow Direction (Base of Pratt to Gillespy Aquifer Transition)
- Ash Pond Boundary

Well ID
MW-1 382.92
Groundwater Elevation

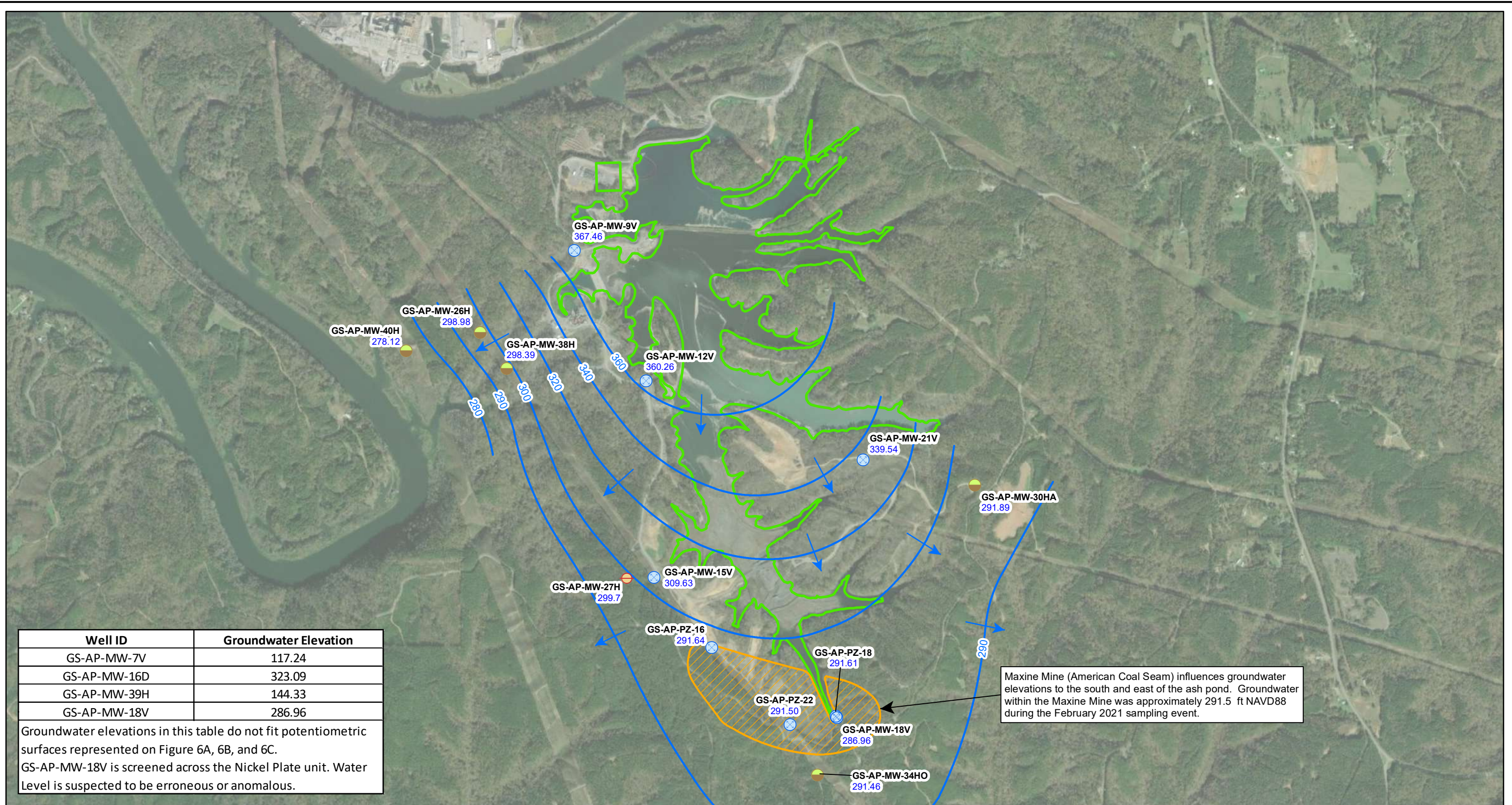
Scale: 0 1,000 2,000 4,000 Feet

North Arrow: N

SCALE: 1:18000
DATE: 7/12/2021
DRAWN BY: KAR
CHECKED BY: GBD

DRAWING TITLE:
POTENTIOMETRIC SURFACE CONTOUR MAP
PRATT AQUIFER
FEBRUARY 1, 2021
PLANT GORGAS ASH POND

FIGURE NO: **FIGURE 6B**



Well ID	Groundwater Elevation
GS-AP-MW-7V	117.24
GS-AP-MW-16D	323.09
GS-AP-MW-39H	144.33
GS-AP-MW-18V	286.96

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C.
 GS-AP-MW-18V is screened across the Nickel Plate unit. Water Level is suspected to be erroneous or anomalous.

Maxine Mine (American Coal Seam) influences groundwater elevations to the south and east of the ash pond. Groundwater within the Maxine Mine was approximately 291.5 ft NAVD88 during the February 2021 sampling event.

Legend

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

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

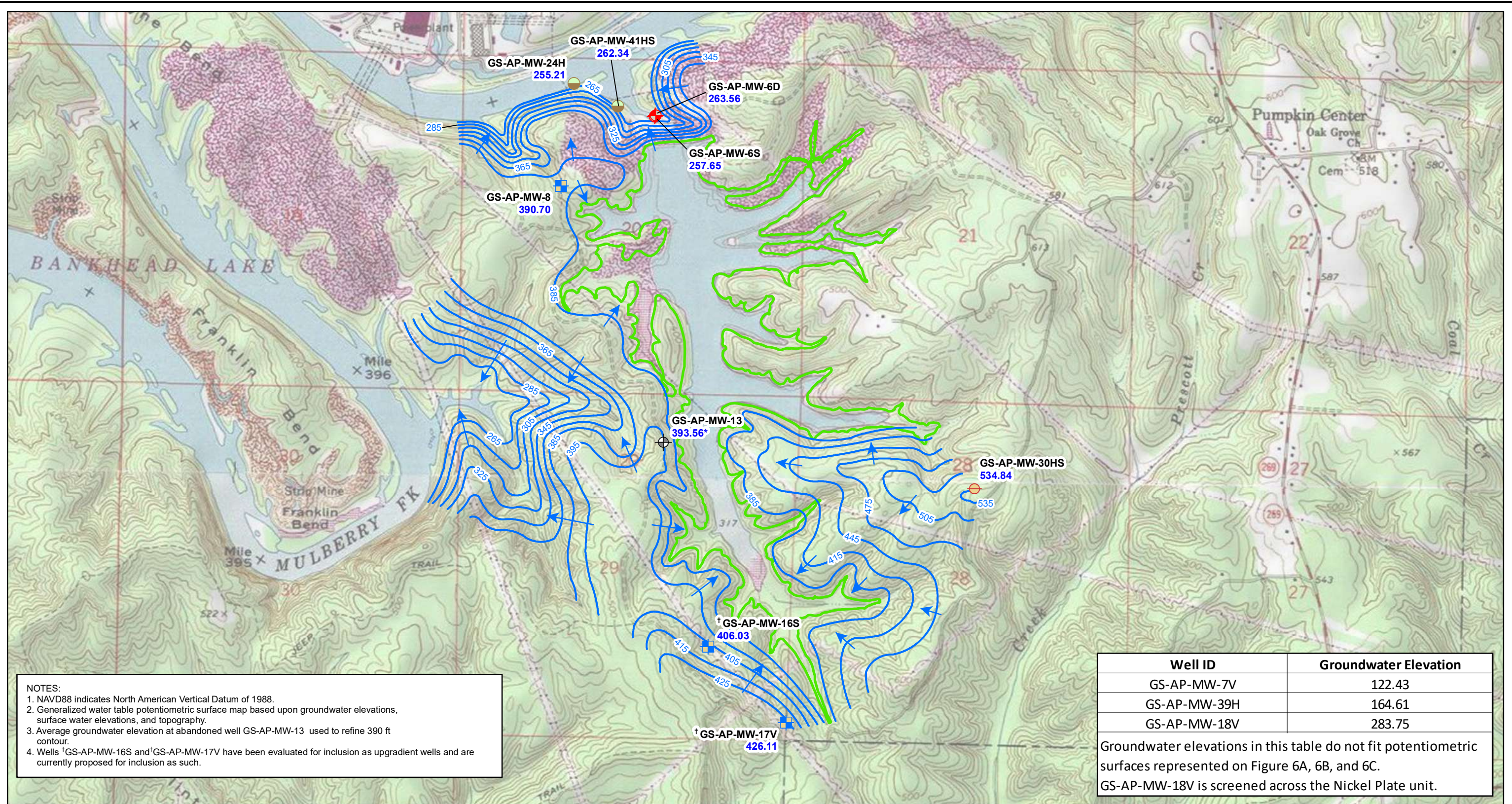


NOTES: 1. NAVD88 indicates North American Vertical Datum of 1988.
 2. GS-AP-PZ-16, -18, and -22 monitor water levels in the Maxine Mine.
 3. Potentiometric contour lines were generalized for depiction and ease of reader.

SCALE	1:18000
DATE	7/13/2021
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE
**POTENTIOMETRIC SURFACE CONTOUR MAP
 AMERICAN AQUIFER
 FEBRUARY 1, 2021
 PLANT GORGAS ASH POND**

FIGURE NO
FIGURE 6C

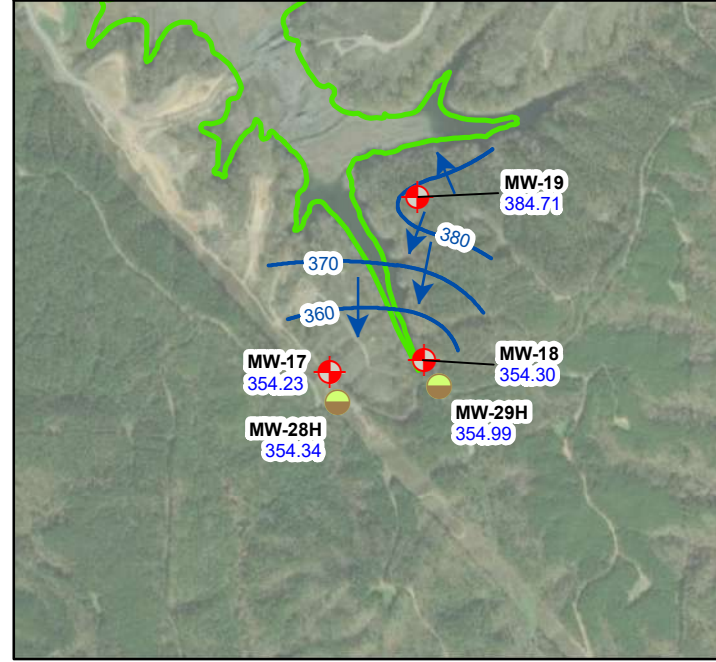


NOTES:
 1. NAVD88 indicates North American Vertical Datum of 1988.
 2. Generalized water table potentiometric surface map based upon groundwater elevations, surface water elevations, and topography.
 3. Average groundwater elevation at abandoned well GS-AP-MW-13 used to refine 390 ft contour.
 4. Wells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

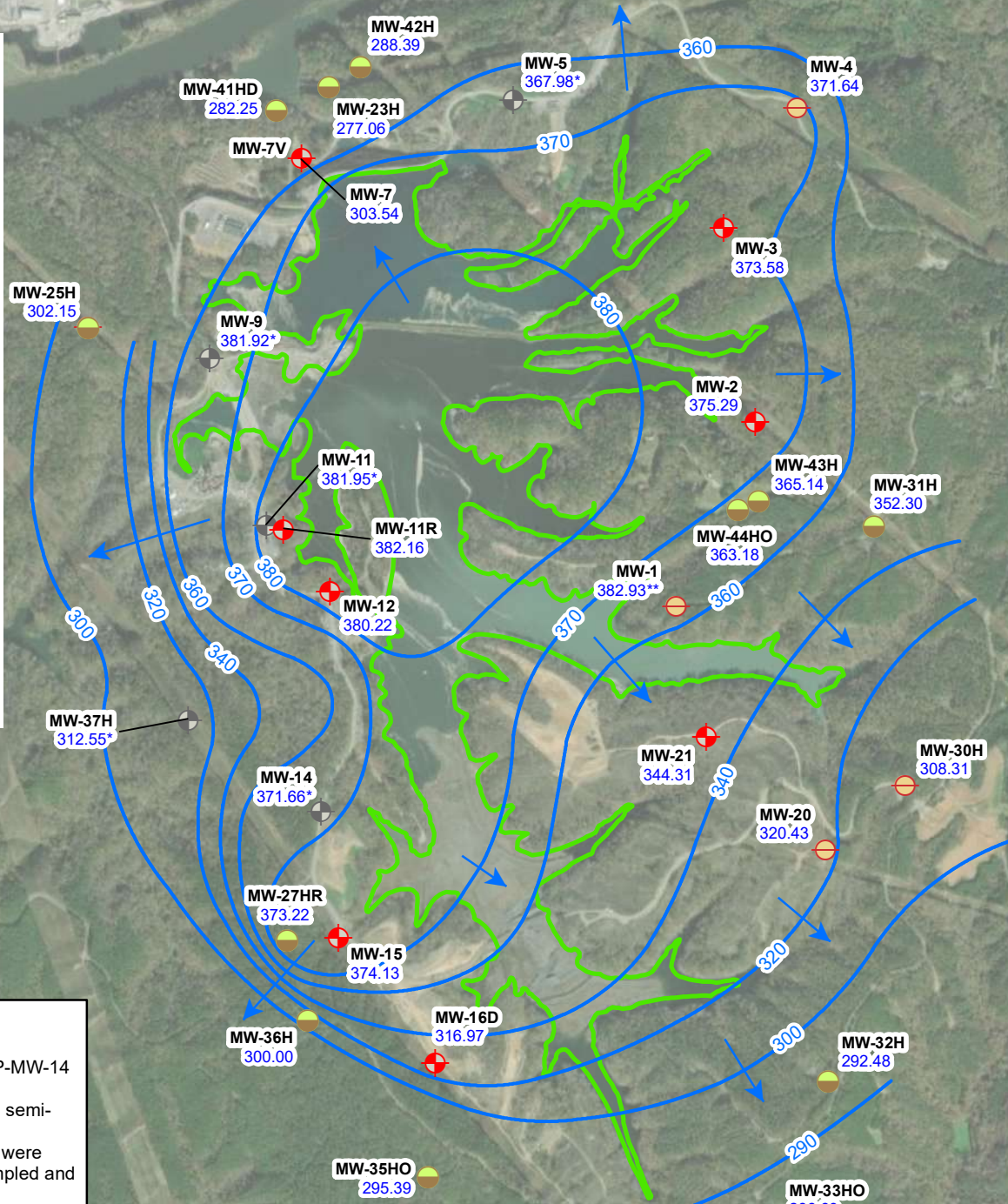
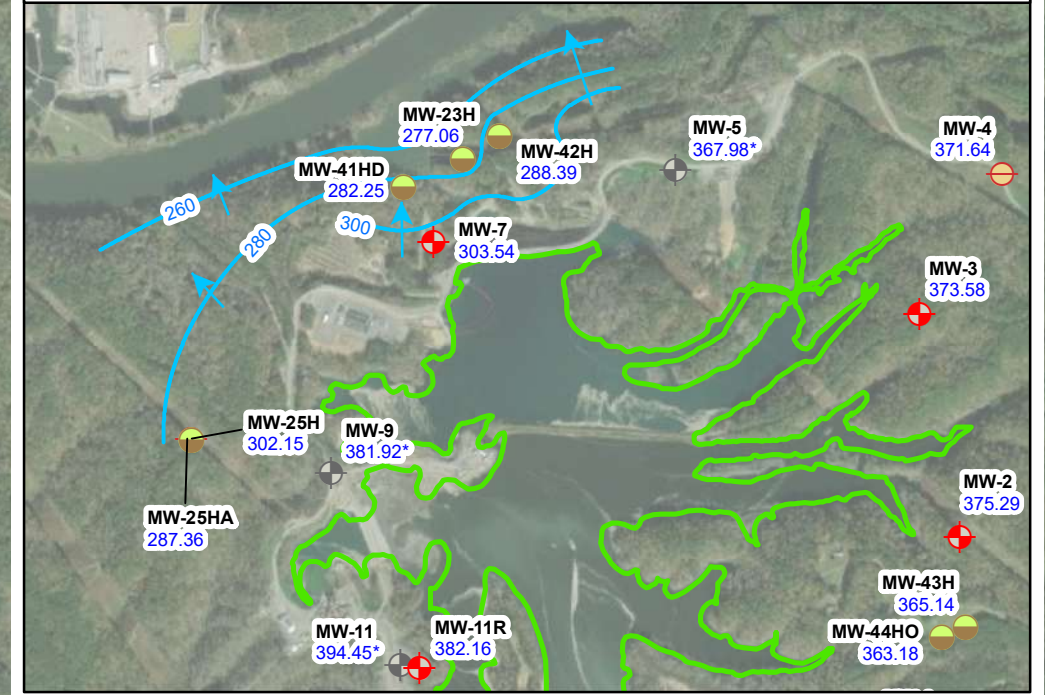
Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C.
 GS-AP-MW-18V is screened across the Nickel Plate unit.

Legend 	SCALE	1:18000	DRAWING TITLE
	DATE	12/22/2021	
	DRAWN BY	KWR	JULY 26, 2021
	CHECKED BY	GBD	PLANT GORGAS ASH POND
		FIGURE NO	FIGURE 7A

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



GENERALIZED POTENTIOMETRIC SURFACE CONTOUR MAP - BASE OF PRATT TO GILLESPIY 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-11R and GS-AP-MW-27HR are replacement wells and were installed at the time of sampling. However, these wells have yet to be sampled and are awaiting final well development and review prior to sampling.
 5. *Average groundwater elevations were used for abandoned wells MW-5, MW-9, MW-11, MW-14, and MW-37H to help depict groundwater flow.
 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. Potentiometric contour lines were generalized for depiction and ease of reader.
 8. ** Groundwater elevation from piezometer MW-1 was not utilized in countouring.

Well ID	Groundwater Elevation
GS-AP-MW-7V	122.43
GS-AP-MW-39H	164.61
GS-AP-MW-18V	283.75

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C.
GS-AP-MW-18V is screened across the Nickel Plate unit.

Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Abandoned Well
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- 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

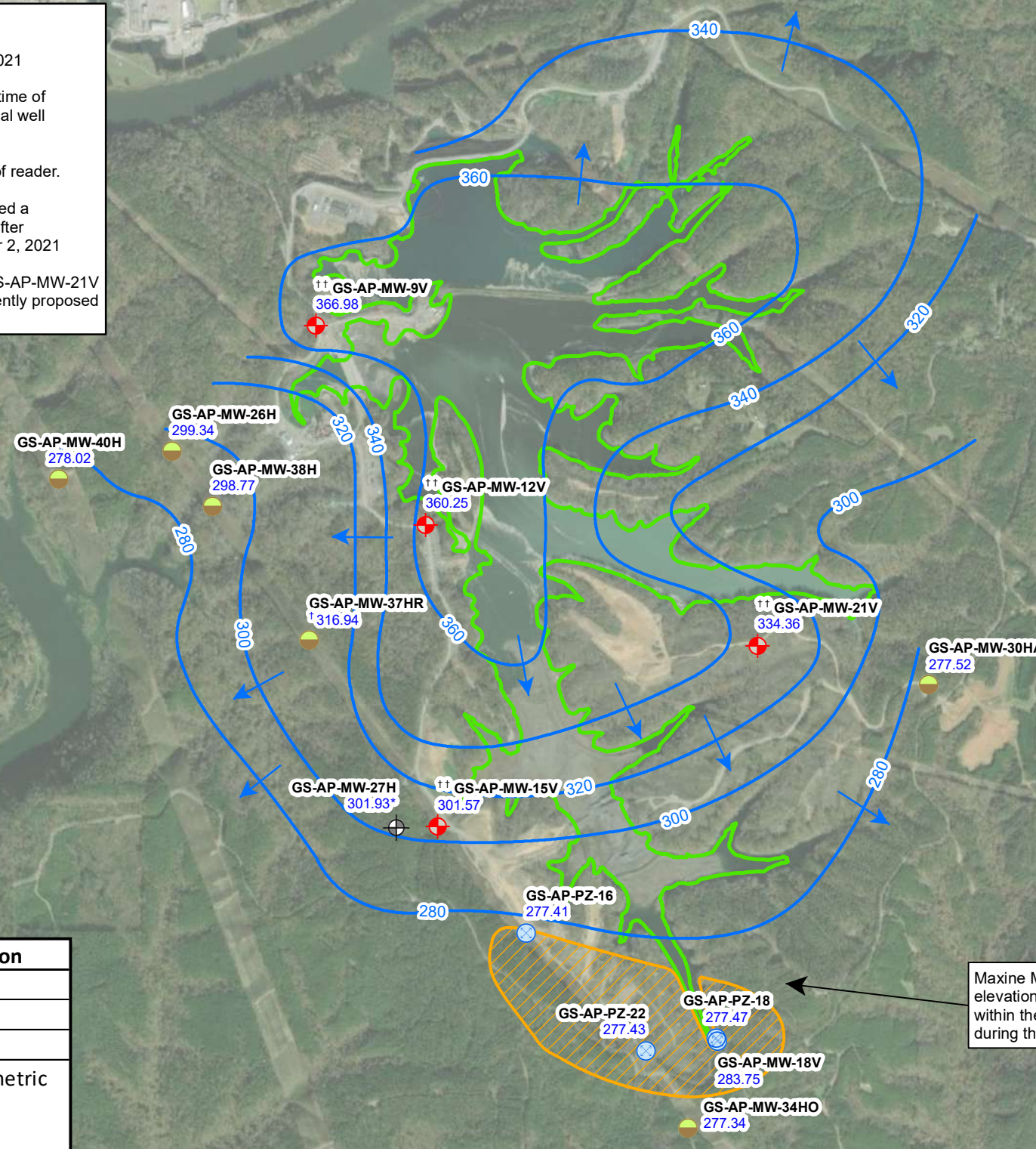
Scale: 0 1,000 2,000 4,000 Feet

North Arrow: N

SCALE	1:18000	DRAWING TITLE POTENTIOMETRIC SURFACE CONTOUR MAP PRATT AQUIFER JULY 26, 2021 PLANT GORGAS ASH POND
DATE	12/22/2021	
DRAWN BY	KWR	FIGURE NO FIGURE 7B
CHECKED BY	GBD	

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. Well GS-AP-MW-37HR is a replacement well and was installed at the time of sampling. However, this well has yet to be sampled and is awaiting final well development and review prior to sampling.
 4. GS-AP-PZ-16, -18, and -22 monitor water levels in the Maxine Mine.
 5. Potentiometric contour lines were generalized for depiction and ease of reader.
 6. * indicates average groundwater elevation.
 7. † Initial water level at GS-AP-MW-37HR taken on July 26, 2021 provided a groundwater elevation indicative of a well restabilizing to equilibrium after installation procedures. A follow-up water level collected on December 2, 2021 is being used for this map.
 8. 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.



Well ID	Groundwater Elevation
GS-AP-MW-7V	122.43
GS-AP-MW-39H	164.61
GS-AP-MW-18V	283.75

Groundwater elevations in this table do not fit potentiometric surfaces represented on Figure 6A, 6B, and 6C.
 GS-AP-MW-18V is screened across the Nickel Plate unit.

Maxine Mine (American Coal Seam) influences groundwater elevations to the south and east of the ash pond. Groundwater within the Maxine Mine was approximately 277.5 ft NAVD88 during the July 2021 sampling event.


Legend

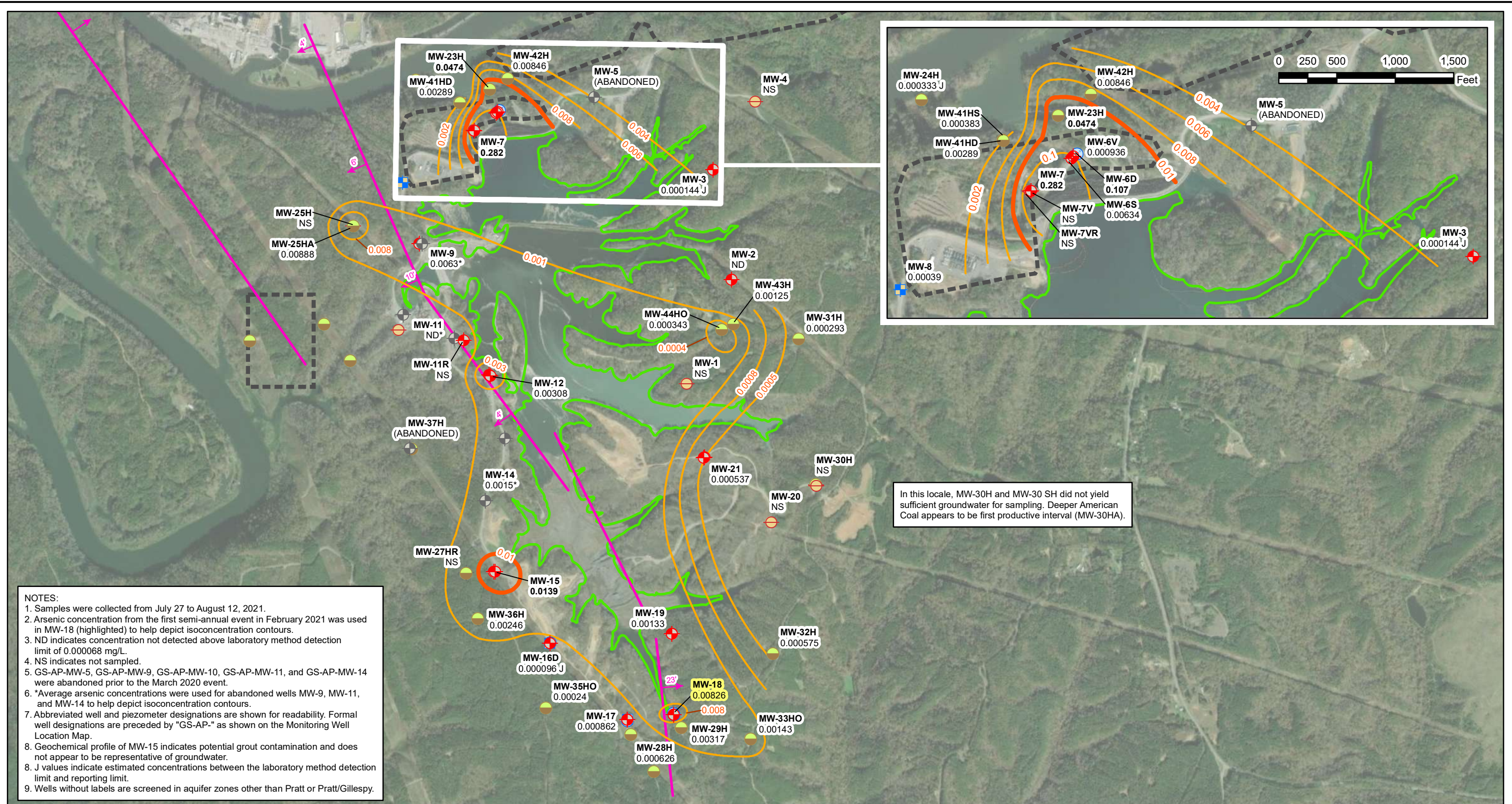
- Downgradient Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Abandoned Well
- Approximate Groundwater Flow Direction
- Potentiometric Surface Contour (ft NAVD88)
- Maxine Mine
- Ash Pond Boundary

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



SCALE	1:18000	DRAWING TITLE POTENTIOMETRIC SURFACE CONTOUR MAP AMERICAN AQUIFER JULY 26, 2021 PLANT GORGAS ASH POND
DATE	12/22/2021	
DRAWN BY	KWR	FIGURE NO FIGURE 7C
CHECKED BY	GBD	



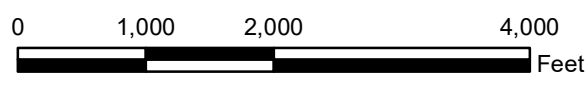


- NOTES:**
1. Samples were collected from July 27 to August 12, 2021.
 2. Arsenic concentration from the first semi-annual event in February 2021 was used in MW-18 (highlighted) to help depict isoconcentration contours.
 3. ND indicates concentration not detected above laboratory method detection limit of 0.000068 mg/L.
 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. *Average arsenic concentrations were used for abandoned wells MW-9, MW-11, and MW-14 to help depict isoconcentration contours.
 7. 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.
 8. Geochemical profile of MW-15 indicates potential grout contamination and does 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/Gillespy.

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

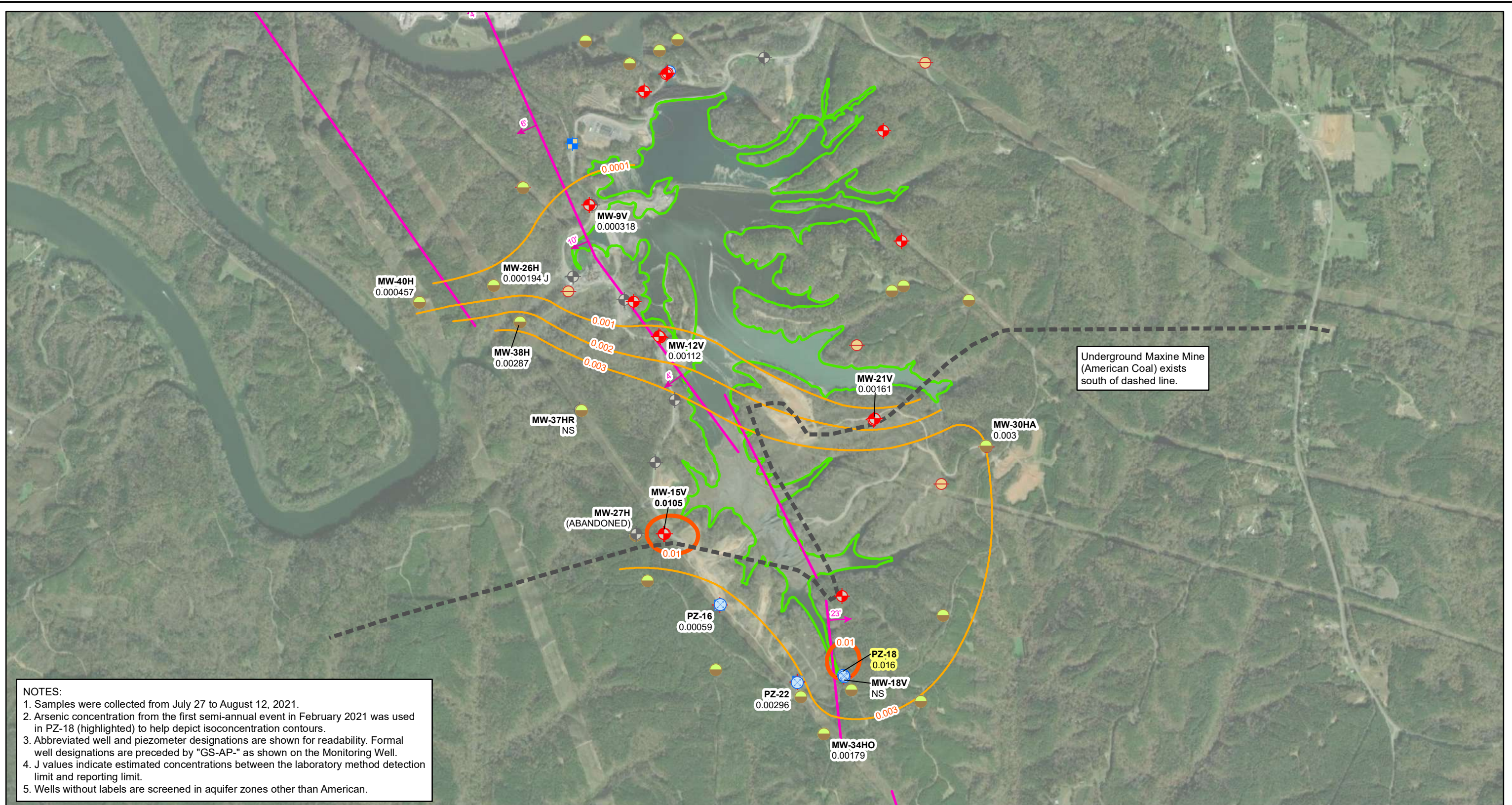
- Legend**
- Downgradient Monitoring Well
 - Upgradient Monitoring Well
 - Horizontal Delineation Well
 - Vertical Delineation Well
 - Piezometer
 - Abandoned Well
 - Ash Pond Boundary
 - Pratt Mines
 - Arsenic GWPS Contour (0.01 mg/L)
 - Arsenic Isoconcentration Contour (mg/L)
 - Fault
 - Dip Direction of Fault with Offset (ft)

MW-36H Well ID
0.00102 Arsenic Concentration (mg/L)



SCALE	1:18000
DATE	7/12/2021
DRAWN BY	KAR
CHECKED BY	GBD

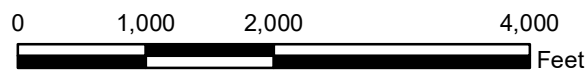
DRAWING TITLE	
ARSENIC ISOCONCENTRATION MAP PRATT AQUIFER JULY TO AUGUST 2021 PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 8A
Southern Company	



Underground Maxine Mine
(American Coal) exists
south of dashed line.

NOTES:
 1. Samples were collected from July 27 to August 12, 2021.
 2. Arsenic concentration from the first semi-annual event in February 2021 was used in PZ-18 (highlighted) to help depict isoconcentration contours.
 3. Abbreviated well and piezometer designations are shown for readability. Formal well designations are preceded by "GS-AP-" as shown on the Monitoring Well.
 4. J values indicate estimated concentrations between the laboratory method detection limit and reporting limit.
 5. Wells without labels are screened in aquifer zones other than American.

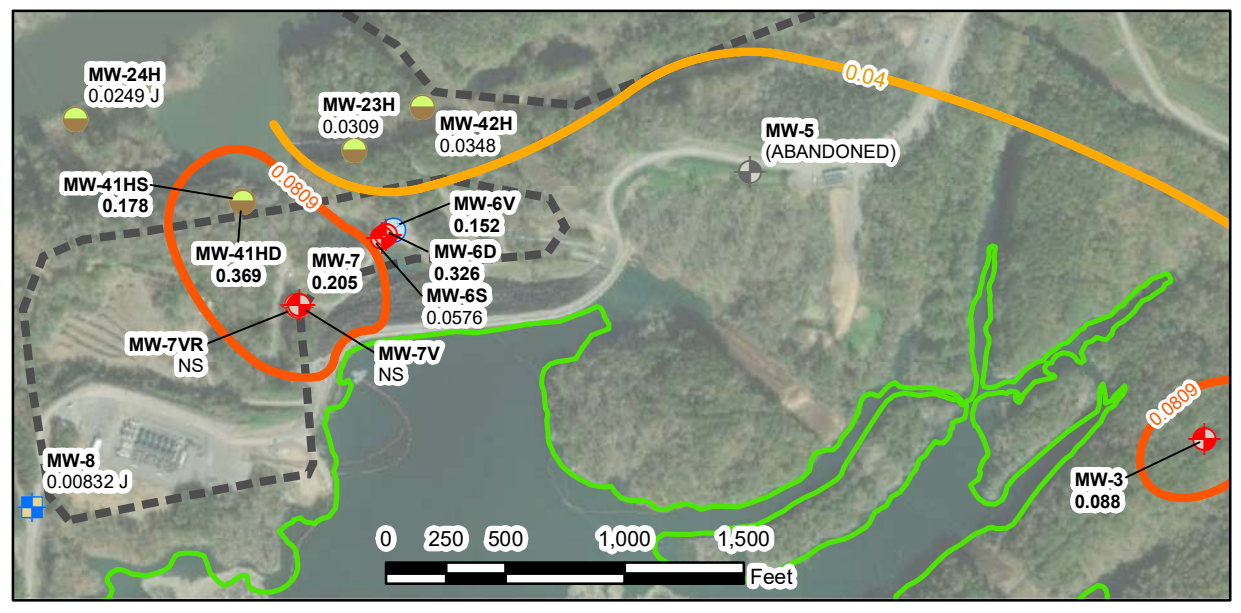
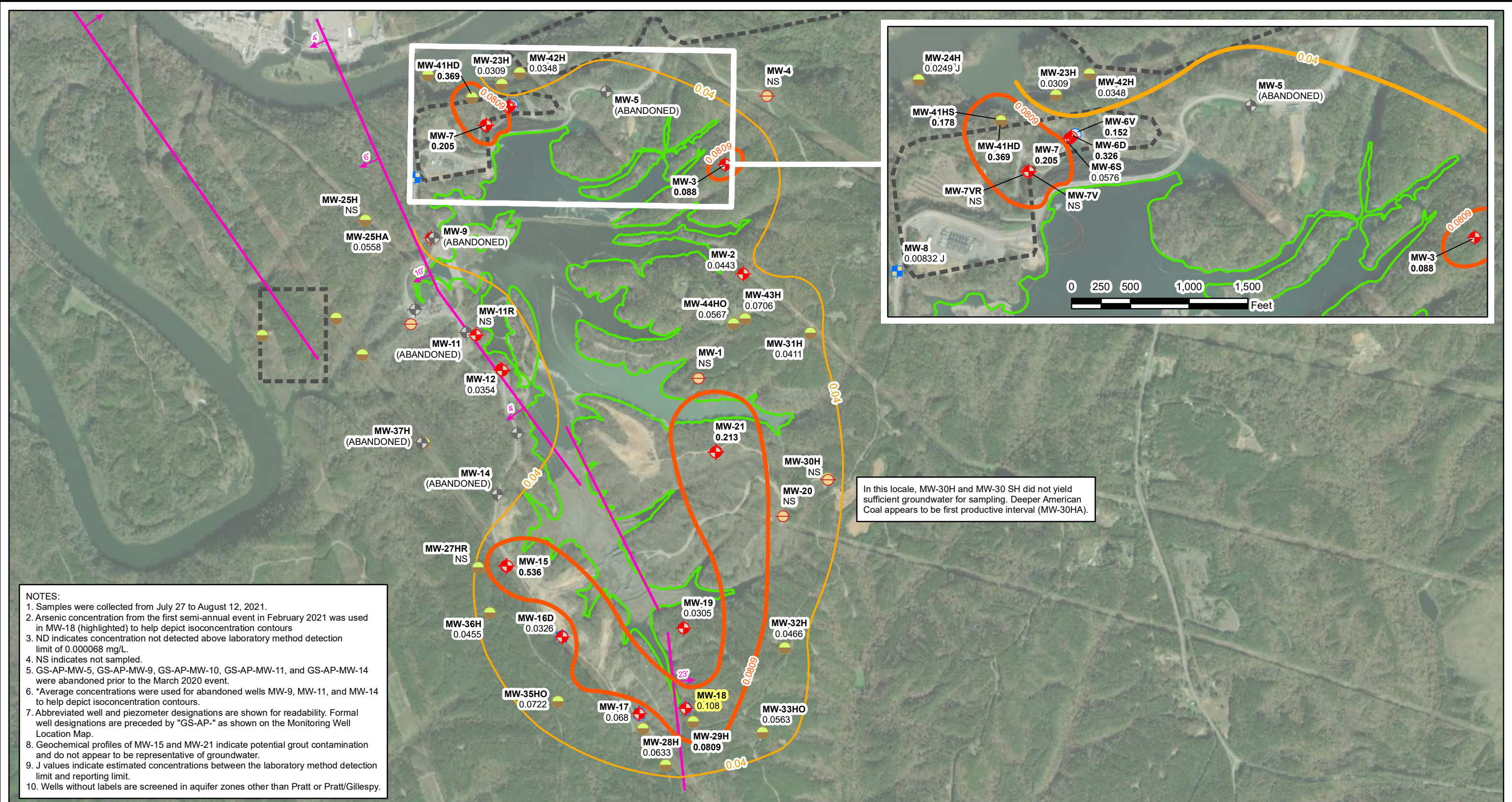
Legend	
	Downgradient Monitoring Well
	Upgradient Monitoring Well
	Horizontal Delineation Well
	Vertical Delineation Well
	Piezometer
	Abandoned Well
	Approximate Underground Maxine Mine Boundary
	Ash Pond Boundary
	Arsenic GWPS Contour (0.01 mg/L)
	Arsenic Isoconcentration Contour (mg/L)
	Fault
	Dip Direction of Fault with Offset (ft)



MW-12V Well ID
0.00112 Arsenic Concentration (mg/L)

SCALE	1:18000
DATE	7/12/2021
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
ARSENIC ISOCONCENTRATION MAP AMERICAN AQUIFER JULY TO AUGUST 2021 PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 8B

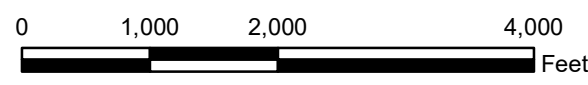


In this locale, MW-30H and MW-30 SH did not yield sufficient groundwater for sampling. Deeper American Coal appears to be first productive interval (MW-30HA).

- NOTES:**
1. Samples were collected from July 27 to August 12, 2021.
 2. Arsenic concentration from the first semi-annual event in February 2021 was used in MW-18 (highlighted) to help depict isoconcentration contours
 3. ND indicates concentration not detected above laboratory method detection limit of 0.000068 mg/L.
 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. *Average concentrations were used for abandoned wells MW-9, MW-11, and MW-14 to help depict isoconcentration contours.
 7. 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.
 8. Geochemical profiles of MW-15 and MW-21 indicate potential grout contamination and do not appear to be representative of groundwater.
 9. J values indicate estimated concentrations between the laboratory method detection limit and reporting limit.
 10. Wells without labels are screened in aquifer zones other than Pratt or Pratt/Gillespy.

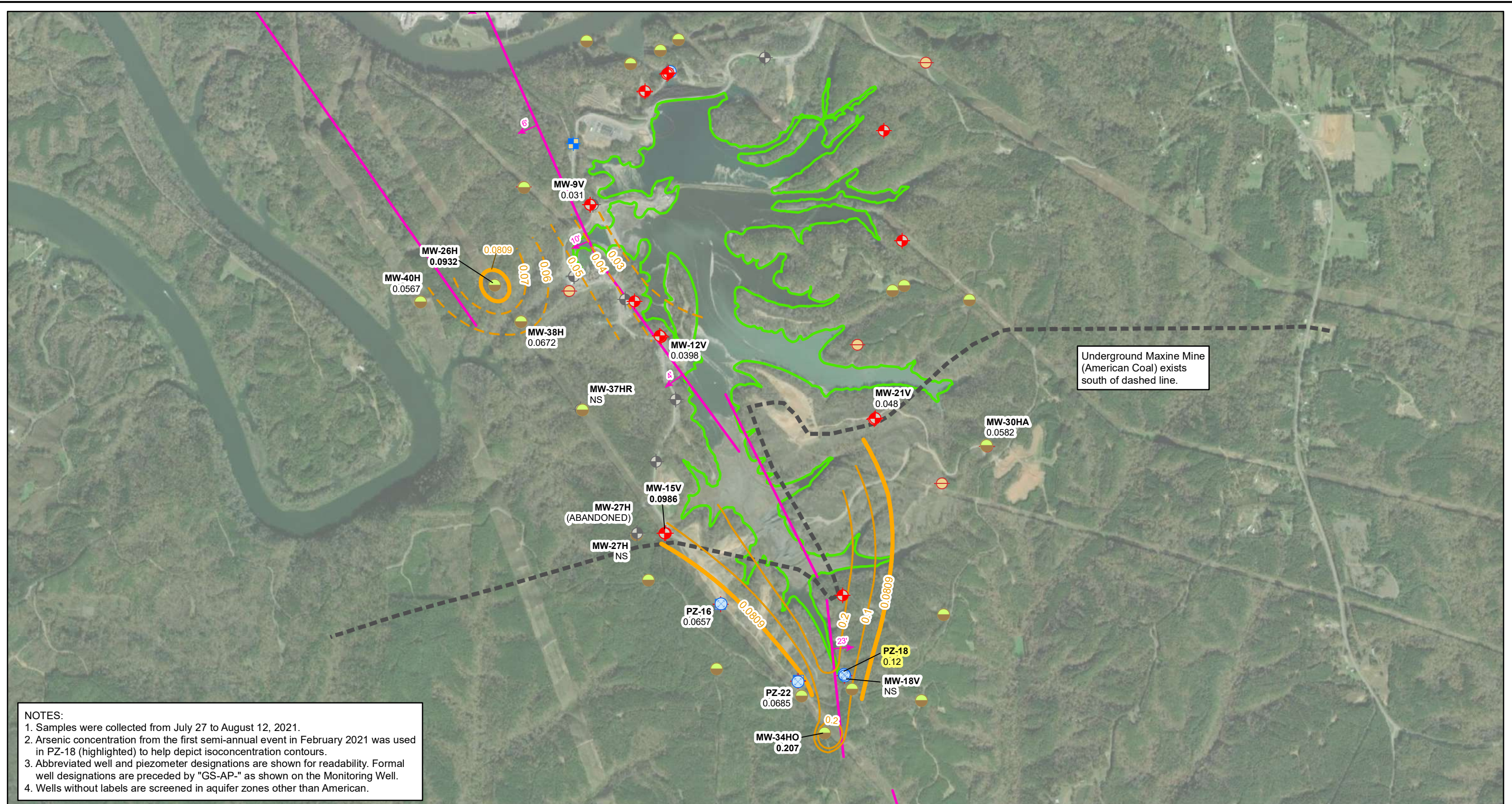
- Legend**
- Downgradient Monitoring Well
 - Upgradient Monitoring Well
 - Horizontal Delineation Well
 - Vertical Delineation Well
 - Piezometer
 - Abandoned Well
 - Lithium GWPS Background Contour (0.0809 mg/L)
 - Lithium Isoconcentration Contour (mg/L)
 - Fault
 - Dip Direction of Fault with Offset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

MW-19 Well ID
0.0305 Lithium Concentration (mg/L)



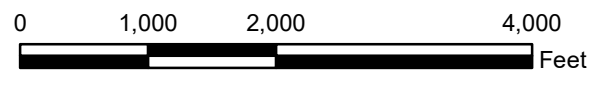
SCALE	1:18000
DATE	7/12/2021
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
LITHIUM ISOCONCENTRATION MAP PRATT AQUIFER JULY TO AUGUST 2021 PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 9A



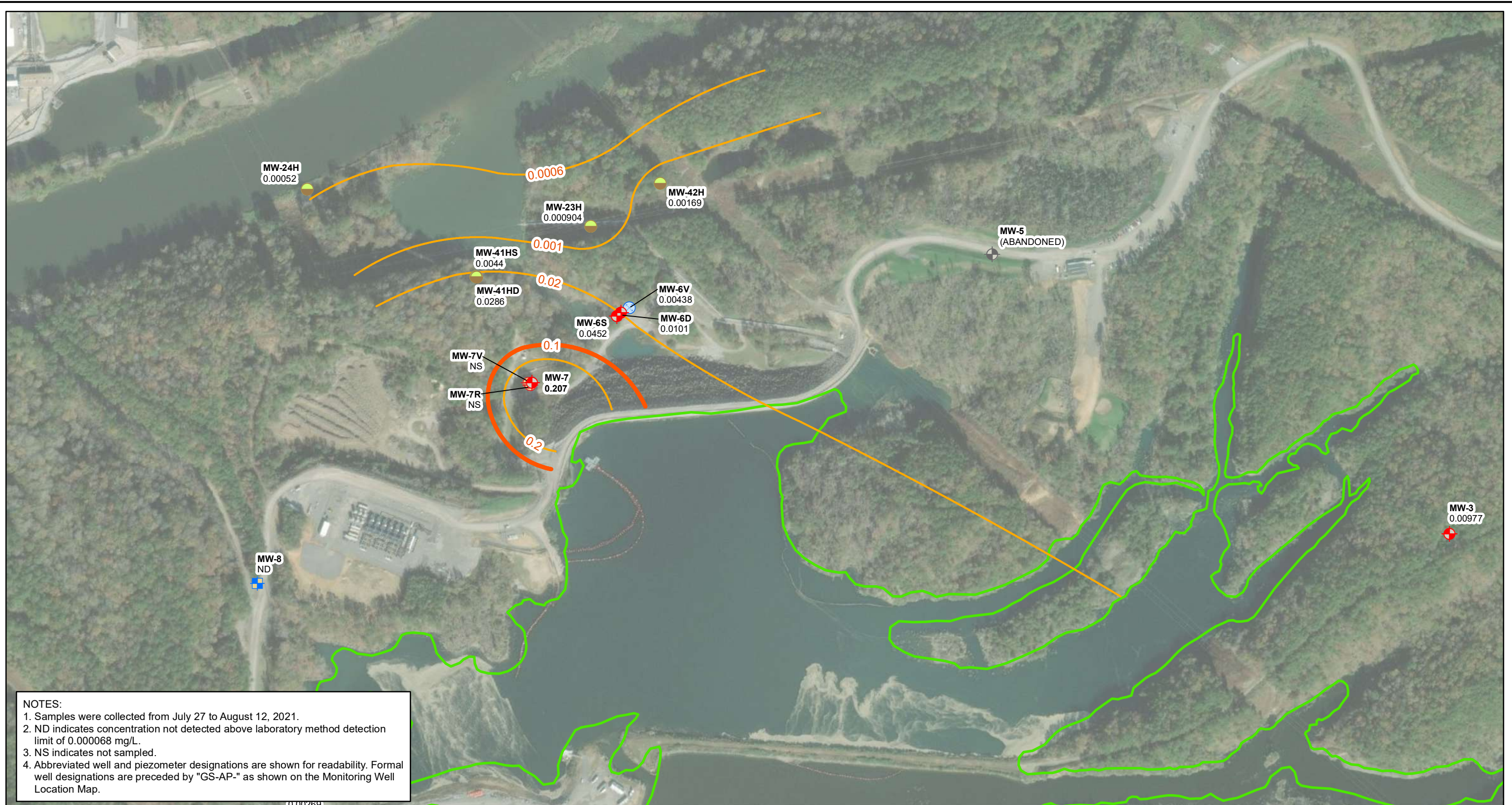
NOTES:
 1. Samples were collected from July 27 to August 12, 2021.
 2. Arsenic concentration from the first semi-annual event in February 2021 was used in PZ-18 (highlighted) to help depict isoconcentration contours.
 3. Abbreviated well and piezometer designations are shown for readability. Formal well designations are preceded by "GS-AP-" as shown on the Monitoring Well.
 4. Wells without labels are screened in aquifer zones other than American.

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 Contour (mg/L)
	Inferred Lithium Contour (mg/L)
	Approximate Underground Maxine Mine Boundary
	Fault
	Dip Direction of Fault with Offset (ft)
	Ash Pond Boundary
	Well ID
	Lithium Concentration (mg/L)



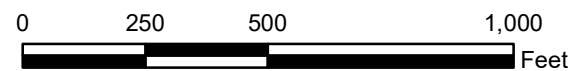
SCALE	1:18000
DATE	7/12/2021
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE	
LITHIUM ISOCONCENTRATION MAP AMERICAN AQUIFER JULY TO AUGUST 2021 PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 9B



NOTES:
 1. Samples were collected from July 27 to August 12, 2021.
 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
	Well ID
	Molybdenum Concentration (mg/L)



SCALE	1:4695
DATE	1/14/2022
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE
**MOLYBDENUM ISOCONCENTRATION MAP
 JULY TO AUGUST 2021
 PLANT GORGAS ASH POND**

FIGURE NO
FIGURE 10



Appendix A



Stantec Consulting Services Inc.
10745 Westside Way Suite 250, Alpharetta, GA 300092

January 27, 2022

Attention: Mr. Gregory Budd, PG

Southern Company Services
Earth Sciences and Environmental Engineering
3535 Colonnade Parkway, Bin S 280 EC
Birmingham, AL 35243

**Reference: Monitoring Well Installation and Abandonment
Plant Gorgas Ash Pond and Gypsum Storage Area
Parrish, AL**

Stantec Consulting Services Inc. (Stantec) is pleased to present this Well Installation Report to document well installation activities conducted at the Alabama Power Plant Gorgas in Parrish, Alabama. In accordance with our proposal (dated June 01, 2021) to address the Scope of Work (SOW) (dated May 2021) and subsequent conversations, Stantec provided drilling and oversight services for twenty-four (24) borings, installation of nineteen (19) groundwater monitoring wells and piezometers, and abandonment of five (5) monitoring wells, three (3) piezometers, and four (4) soil borings at the facility between June 21, 2021, and November 9, 2021.

The borings for each monitoring well were advanced by Cascade Drilling LLC, under the oversight of Stantec drilling inspectors, using a ProSonic 150 rotary sonic drill rig with air rotary (air hammer) capabilities. Upon completion of each boring, the boring was either abandoned or a well was constructed in accordance with the project work plan.

The specific details regarding the drilling and construction of each well are included as the stand-alone deliverables provided in the attachments herein. A brief summary of each boring and well installation is provided below.

Reference: Monitoring Well Installation and Abandonment
 Plant Gorgas Ash Pond and Gypsum Storage Area
 Parrish, AL

Type	Name	Date	Total Depth (Feet BGS)	Construction
Monitoring Wells / Piezometers Installed	GS-AP-MW-01R	3-Nov-21	241.4	2-inch PVC Well
	GS-AP-MW-03V	26-Sep-21	215.4	2-inch PVC Well
	GS-AP-MW-05R	8-Jul-21	175.0	2-inch PVC Well
	GS-AP-MW-09R	8-Jul-21	96.0	2-inch PVC Well
	GS-AP-MW-10R	8-Aug-21	208.0	2-inch PVC Well
	GS-AP-MW-11R	25-Jul-21	144.5	2-inch PVC Well
	GS-AP-MW-13R	25-Jul-21	165.4	2-inch PVC Well
	GS-AP-MW-14R	11-Aug-21	199.4	2-inch PVC Well
	GS-AP-MW-18R	3-Nov-21	53.4	2-inch PVC Well
	GS-AP-MW-18VR	8-Oct-21	217.4	2-inch PVC Well
	GS-AP-PZ-18R	3-Nov-21	112.4	2-inch PVC Piezometer
	GS-AP-MW-23V	7-Oct-21	84.4	2-inch PVC Well
	GS-AP-MW-27HR	9-Jul-21	277.4	2-inch PVC Well
	GS-AP-MW-31V	5-Nov-21	325.4	2-inch PVC Well
	GS-AP-MW-36V	7-Oct-21	317.4	2-inch PVC Well
	GS-AP-MW-37HR	12-Sep-21	241.4	2-inch PVC Well
	GS-AP-MW-45V	12-Sep-21	257.0	2-inch PVC Well
	GS-AP-MW-46	3-Nov-21	215.4	2-inch PVC Well
GS-AP-MW-47	6-Nov-21	239.4	2-inch PVC Well	
Well/Borings Abandoned	GS-AP-MW-01	25-Sep-21	145.0	Abandoned
	GS-AP-MW-18	6-Aug-21	90.0	Abandoned
	GS-AP-MW-18V	6-Aug-21	127.6	Abandoned
	GS-AP-PZ-18	6-Aug-21	185.3	Abandoned
	GS-AP-MW-27H	6-Aug-21	242.0	Abandoned
	GS-AP-MW-37H	4-Aug-21	290.3	Abandoned
	GS-AP-MW-45H	9-Sep-21	216.0	Abandoned
	GS-AP-MW-45HA	9-Sep-21	218.0	Abandoned
	GS-GSA-PZ-03	25-Oct-21	120.4	Abandoned
	GS-GSA-PZ-23	21-Oct-21	120.0	Abandoned
	GS-GSA-PZ-24	24-Oct-21	300.0	Abandoned
GS-GSA-PZ-25	2-Nov-21	250.0	Abandoned	

As requested in the SOW, the attached deliverables include:

Reference: **Monitoring Well Installation and Abandonment
Plant Gorgas Ash Pond and Gypsum Storage Area
Parrish, AL**

- Attachment A: Table 1 – Monitoring Well Survey Results;
- Attachment B: Table 2 – Monitoring Well Installation and Construction Details;
- Attachment C: Table 3 – Monitoring Well Abandonment Details;
- Attachment D: Final PDF Logs of Well Construction and Bored Strata;
- Attachment E: Monitoring Well Installation Logs;
- Attachment F: Monitoring Well Abandonment Forms;

Additional attachments include:

- Attachment G: Daily Field Reports;
- Attachment H: Photographic Log;

Finally, as requested in the SOW

- The delivery of sonic core samples to Logan Martin Dam for storage. After completion of drilling, samples were relinquished to SCS-Civil Field Services for delivery to Logan Martin Dam.
- A copy of gINT database containing all logged borings.

January 27, 2022
Mr. Gregory Budd, PG
Page 4 of 4

**Reference: Monitoring Well Installation and Abandonment
Plant Gorgas Ash Pond and Gypsum Storage Area
Parrish, AL**

We appreciate the opportunity to provide these well installation services for Southern Company Services. Please contact us with any questions.

Regards,

Stantec Consulting Services Inc.



Andrew Stevens, GIT
Geologist-in-Training
andrew.stevens@stantec.com
(615) 578-5456



Edgar Smith, II PG
Senior Associate
edgar.smithii@stantec.com
(770) 656-2676

Attachments:

- Attachment A:** Table 1 – Monitoring Well Survey
- Attachment B:** Table 2 – Monitoring Well Installation and Construction Details
- Attachment C:** Table 3 – Monitoring Well Abandonment Details
- Attachment D:** Subsurface Boring Logs
- Attachment E:** Monitoring Well Installation Logs
- Attachment F:** Well Abandonment Forms
- Attachment G:** Daily Field Reports
- Attachment H:** Photographic Log

ATTACHMENTS

Plant Gorgas Ash Pond

Well Installation Report

Monitoring Well Installation and Abandonment



ATTACHMENT A, B & C

A: Table 1 – Monitoring Well Survey

B: Table 2 – Monitoring Well Installation and Construction Details

C: Table 3 – Monitoring Well Abandonment Forms



ATTACHMENT A

TABLE 1: MONITORING WELL SURVEY									
Southern Company Services Plant Gorgas									
Reference Coordinate System:			Horizontal Datum: Alabama West NAD83			Vertical Datum: NAVD 1988			
Well ID	Date Surveyed	Surveyor ¹	Northing (ft)	Easting (ft)	Latitude Decimal Degrees	Longitude Decimal Degrees	Elevation Top of Nail (ft)	Elevation Ground (ft)	Elevation Top of Casing (ft)
GS-AP-MW-01R	12/6-8/2021	Michael T. Hammett	1320298.45	2066970.17	33.6290955	-87.1765004	488.43	488.24	491.37
GS-AP-MW-03V	12/6-8/2021	Michael T. Hammett	1323698.58	2067326.36	33.6384366	-87.1752952	510.55	510.28	513.40
GS-AP-MW-05R	12/6-8/2021	Michael T. Hammett	1324768.77	2065423.21	33.6413939	-87.1815373	486.20	485.98	488.59
GS-AP-MW-09R	12/6-8/2021	Michael T. Hammett	1322413.65	2062685.53	33.6349445	-87.1905556	418.66	418.47	421.20
GS-AP-MW-10R	12/6-8/2021	Michael T. Hammett	1321137.39	2062567.40	33.6314381	-87.1909562	450.06	449.88	452.79
GS-AP-MW-11R	12/6-8/2021	Michael T. Hammett	1320922.39	2063407.72	33.6308403	-87.1881976	453.05	452.90	455.60
GS-AP-MW-13R	12/6-8/2021	Michael T. Hammett	1319695.90	2063863.84	33.6274659	-87.1867114	458.19	457.82	460.66
GS-AP-MW-14R	12/6-8/2021	Michael T. Hammett	1318594.55	2063763.70	33.6244400	-87.1870513	471.94	471.62	474.32
GS-AP-MW-18R	12/6-8/2021	Michael T. Hammett	1314928.60	2067040.57	33.6143376	-87.1763243	460.06	459.80	463.07
GS-AP-MW-18VR	12/6-8/2021	Michael T. Hammett	1314931.31	2067022.14	33.6143452	-87.1763848	459.92	459.55	462.80
GS-AP-PZ-18R	12/6-8/2021	Michael T. Hammett	1314925.44	2067060.19	33.6143287	-87.1762599	460.16	459.81	463.13
GS-AP-MW-23V	12/6-8/2021	Michael T. Hammett	1324906.06	2063770.86	33.6417851	-87.1869650	303.40	303.34	306.40
GS-AP-MW-27HR	12/6-8/2021	Michael T. Hammett	1317233.91	2063501.93	33.6207029	-87.1879247	532.59	531.32	535.26
GS-AP-MW-31V	12/6-8/2021	Michael T. Hammett	1321049.87	2068723.91	33.6311453	-87.1707312	585.83	585.88	588.49
GS-AP-MW-36V	12/6-8/2021	Michael T. Hammett	1316538.79	2063638.24	33.6187914	-87.1874838	534.07	533.82	537.05
GS-AP-MW-37HR	12/6-8/2021	Michael T. Hammett	1319191.68	2062611.50	33.6260905	-87.1908304	457.42	457.27	460.05
GS-AP-MW-45V	12/6-8/2021	Michael T. Hammett	1323716.51	2068639.25	33.6384745	-87.1709814	548.02	547.76	550.59
GS-AP-MW-46	12/6-8/2021	Michael T. Hammett	1320304.25	2066944.53	33.6291117	-87.1765846	488.34	488.01	491.25
GS-AP-MW-47	12/6-8/2021	Michael T. Hammett	1318564.84	2063754.57	33.6243584	-87.1870816	472.16	471.88	475.09

1 - Alabama licensed Land Suretyor #16161

ft - feet

ATTACHMENT B

TABLE 2: MONITORING WELL INSTALLATION AND CONSTRUCTION DETAILS
Southern Company Services Plant Gorgas

Well ID	Date installation completed	Northing AL NAD 1983 (ft)	Easting AL NAD 1983 (ft)	Ground Elevation (ft NAVD 1988)	Top of Casing Elevation (ft NAVD 1988)	Well Diameter (PVC Casing) (inches)	Total Depth of Boring (ft bgs)	Total Depth of Well (ft bgs)	Depth Top of Screen (ft bgs)	Depth Base of Screen (ft bgs)	Existing Stickup Height (ft ags)	Water Depth (ft bgs)
GS-AP-MW-01R	11/3/2021	1320298.45	2066970.17	488.24	491.37	2.0	255.0	241.4	231.0	241.0	3.1	175.9
GS-AP-MW-03V	9/26/2021	1323698.58	2067326.36	510.28	513.40	2.0	220.0	215.4	205.0	215.0	3.1	152.0
GS-AP-MW-05R	7/8/2021	1324768.77	2065423.21	485.98	488.59	2.0	185.0	175.0	164.6	174.6	2.6	143.7
GS-AP-MW-09R	7/8/2021	1322413.65	2062685.53	418.47	421.20	2.0	140.0	96.0	85.6	95.6	2.7	61.0
GS-AP-MW-10R	8/8/2021	1321137.39	2062567.40	449.88	452.79	2.0	220.0	208.0	197.6	207.6	2.9	145.5
GS-AP-MW-11R	7/25/2021	1320922.39	2063407.72	452.90	455.60	2.0	160.0	144.5	134.1	144.1	2.7	75.3
GS-AP-MW-13R	7/25/2021	1319695.90	2063863.84	457.82	460.66	2.0	180.0	165.4	155.0	165.0	2.8	99.8
GS-AP-MW-14R	8/11/2021	1318594.55	2063763.70	471.62	474.32	2.0	210.0	199.4	189.0	199.0	2.7	105.6
GS-AP-MW-18R	11/3/2021	1314928.60	2067040.57	459.80	463.07	2.0	57.0	53.4	43.0	53.0	3.0	43.3
GS-AP-MW-18VR	10/8/2021	1314931.31	2067022.14	459.55	462.80	2.0	220.0	217.4	207.0	217.0	2.9	195.8
GS-AP-PZ-18R	11/3/2021	1314925.44	2067060.19	459.81	463.13	2.0	120.0	112.4	102.0	112.0	3.0	96.1
GS-AP-MW-23V	10/7/2021	1324906.06	2063770.86	303.34	306.40	2.0	87.0	84.4	74.0	84.0	3.1	43.9
GS-AP-MW-27HR	7/9/2021	1317233.91	2063501.93	531.32	535.26	2.0	300.0	277.4	267.0	277.0	2.7	163.1
GS-AP-MW-31V	11/5/2021	1321049.87	2068723.91	585.88	588.49	2.0	355.0	325.4	315.0	325.0	2.6	283.7
GS-AP-MW-36V	10/7/2021	1316538.79	2063638.24	533.82	537.05	2.0	325.0	317.4	307.0	317.0	3.0	261.5
GS-AP-MW-37HR	9/12/2021	1319191.68	2062611.50	457.27	460.05	2.0	250.0	241.4	231.0	241.0	2.8	143.1
GS-AP-MW-45V	9/12/2021	1323716.51	2068639.25	547.76	550.59	2.0	265.0	257.0	246.6	256.6	2.8	202.1
GS-AP-MW-46	11/3/2021	1320304.25	2066944.53	488.01	491.25	2.0	218.0	215.4	194.0	215.0	2.9	128.3
GS-AP-MW-47	11/6/2021	1318564.84	2063754.57	471.88	475.09	2.0	242.0	239.4	229.0	239.0	2.9	121.8

Notes

Holes drilled deeper than the base of the well were backfilled beyond the filter pack with bentonite chips

AL NAD 1983: Alabama West North American Datum 1983, Horizontal Datum

NAVD 1988: North American Vertical Datum 1988

ft bgs: feet below ground surface

ft ags: feet above ground surface

MSL: Mean Sea Level

ATTACHMENT C

TABLE 3: MONITORING WELL ABANDONMENT DETAILS
Southern Company Services Plant Gorgas

Well ID	Installation Date	Well Abandoned	Screened Formation	Northing AL NAD 1983 (ft)	Easting AL NAD 1983 (ft)	Top of Casing NAVD 1988 (ft-msl)	Top of Ground NAVD 1988 (ft-msl)	Well/Boring Depth (ft bgs)	Existing Stickup Height (ft ags)	Well Diameter (inches)	Screened (ft-msl)	Rationale
GS-AP-MW-01	2/24/2016	9/25/2021	Pratt Strata	1320292.58	2066945.10	490.68	487.30	145.0	N/A	2.00	362.3 - 342.3	This location was screened across a poor yielding strata and therefore, deeper strata well may be utilized to enhance the likelihood of a successful well installation.
GS-AP-MW-18	3/29/2016	8/6/2021	Pratt Strata	1315052.82	2066824.84	403.39	400.17	90.0	N/A	2.00	324.71 - 218.6	This location was screened across a poor yielding strata and therefore, deeper strata well may be utilized to enhance the likelihood of a successful well installation.
GS-AP-MW-18V	1/30/2019	8/6/2021	American Strata	1315045.44	2066833.22	404.61	401.81	127.6	N/A	2.00	276.9 - 266.9	This location was screened across a poor yielding strata and therefore, deeper strata well may be utilized to enhance the likelihood of a successful well installation.
GS-AP-PZ-18	2/25/2016	8/6/2021	American Strata	1315069.22	2066821.51	402.38	399.77	185.3	N/A	2.00	228.6 - 218.6	This location was screened across a poor yielding strata and therefore, deeper strata well may be utilized to enhance the likelihood of a successful well installation.
GS-AP-MW-27H	2/12/2019	8/6/2021	Pratt Strata	1317251.09	2063507.76	535.03	532.08	242.0	N/A	2.00	300.1 - 290.1	This location was screened across a poor yielding strata and therefore, deeper strata well may be utilized to enhance the likelihood of a successful well installation.
GS-AP-MW-37H	10/23/2019	8/4/2021	Pratt Strata	1319199.34	2062581.05	459.28	456.12	290.3	N/A	2.00	185.8 - 165.8	This location was screened across a poor yielding strata and therefore, deeper strata well may be utilized to enhance the likelihood of a successful well installation.
GS-AP-MW-45H	8/24/2021	9/9/2021	Pratt Strata	NS	NS	NS	NS	216.0	N/A	N/A	N/A	Air circulation was lost to the formation between 212 and 216 feet bgs, which is believed to be a coal seam that may have been previously mined out.

ATTACHMENT C

TABLE 3: MONITORING WELL ABANDONMENT DETAILS
Southern Company Services Plant Gorgas

Well ID	Installation Date	Well Abandoned	Screened Formation	Northing AL NAD 1983 (ft)	Easting AL NAD 1983 (ft)	Top of Casing NAVD 1988 (ft-msl)	Top of Ground NAVD 1988 (ft-msl)	Well/Boring Depth (ft bgs)	Existing Stickup Height (ft ags)	Well Diameter (inches)	Screened (ft-msl)	Rationale
GS-AP-MW-45HA	9/9/2021	9/9/2021	Pratt Strata	NS	NS	NS	NS	218.0	N/A	N/A	N/A	Air circulation was lost to the formation at a depth of 215 feet bgs, which is believed to be a coal seam that may have been previously mined out.
GS-GSA-PZ-03	NA	10/25/2021	NA	NA	NA	NA	NA	120.4	N/A	2.00	NA	This pezometer was previously damaged.
GS-GSA-PZ-23	10/20/2021	10/21/2021	American Strata	1331221.62	2054010.784	N/A	507.6	120.0	N/A	N/A	N/A	Borehole location was abandoned abandoned due to unstable rock conditions.
GS-GSA-PZ-24	10/23/2021	10/24/2021	Pratt Strata	1331586.551	2054836.478	N/A	490.0	300.0	N/A	N/A	N/A	Borehole location was abandoned due to mine void encountered between 47 and 51 feet bgs.
GS-GSA-PZ-25	10/23/2021	11/2/2021	American Strata	1331561.817	2054853.733	N/A	490.0	250.0	N/A	2.00	N/A	Well location was abandoned prior to installation of surface completion due to loss of water column to the surrounding formation and suspected mine voids.

Abbreviations:











ft feet
ft bgs feet below top of ground surface
ft ags feet above ground surface
in inches
NA Not Available
N/A Not Applicable
NS Not Surveyed

ATTACHMENT D

Subsurface Boring Logs



Client Borehole ID	<u>GS-AP-MW-01R</u>	Stantec Boring No.	<u>GS-AP-MW-01R</u>		
Client	<u>Southern Company Services</u>	Boring Location	<u>1,320,298.45 N; 2,066,970.17 E</u>		
Project Number	<u>175520214</u>	Surface Elevation	<u>488.43 ft</u>	Elevation Datum	<u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>9/14/21</u>	Completed	<u>9/21/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>177.7 ft</u>	Date/Time	<u>11/9/21</u>
Inspector	<u>C. Sexton / A. Stevens</u>	Logger	<u>C. Sexton / A. Stevens</u>	Depth to Water	<u>175.9 ft</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>		
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>				
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop	<u>N/A</u>
Efficiency	<u>N/A</u>				
Reviewed By	<u>W. Padgett</u>	Approved By	<u>E. Smith</u>		

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	488.4							
	1.0	487.4							
	3.0	485.4							
	4.0	484.4			RS	0.0 - 7.0	7.0	N/A	
5									
	7.5	480.9							
10									
	16.5	471.9			RS	7.0 - 17.0	10.0	N/A	
15									
	18.0	470.4							
20									
	23.5	464.9			RS	17.0 - 27.0	9.0	N/A	
25									
30									

STANTEC: 1755 STD: 175520214.GPJ BC: 1755 STD: DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-01R</u>	Stantec Boring No. <u>GS-AP-MW-01R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,298.45 N; 2,066,970.17 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.43 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Siltstone Sandstone, light gray to dark gray, fine grained, moderately hard to very hard, thin bedded to very thin bedded, slightly weathered, dry, no odor, iron oxide staining, Some lenses of iron oxide horizons. <i>(Continued)</i>		RS	27.0 - 37.0	9.5	N/A	
35					RS	37.0 - 40.0	3.0	N/A	
40	40.0	448.4	Siltstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, thin, dry to moist, Samples collected from air-hammer outflow.		AH	40.0 - 50.0	10.0		
45				AH	50.0 - 60.0	10.0			
50				AH	60.0 - 70.0	10.0			
55				AH	60.0 - 70.0	10.0			
60				AH	60.0 - 70.0	10.0			
65				AH	60.0 - 70.0	10.0			

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-01R</u>	Stantec Boring No. <u>GS-AP-MW-01R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,298.45 N; 2,066,970.17 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.43 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70			Siltstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, thin, dry to moist, Samples collected from air-hammer outflow. <i>(Continued)</i>						
75				AH	70.0 - 80.0	10.0			
80									
85				AH	80.0 - 90.0	10.0			
90									
95			AH	90.0 - 100.0	10.0				
100									

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-01R</u>	Stantec Boring No. <u>GS-AP-MW-01R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,298.45 N; 2,066,970.17 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.43 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		●●●●●	Siltstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, thin, dry to moist, Samples collected from air-hammer outflow. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110		●●●●●							
115		●●●●●		AH	110.0 - 120.0	10.0			
120	120.0	368.4	Sandstone Mudstone, very fine grained, hard, very thin bedded to medium bedded, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.						
125		⌋		AH	120.0 - 130.0	10.0			
130		⌋							
135		⌋		AH	130.0 - 140.0	10.0			
140		⌋							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-01R</u>	Stantec Boring No. <u>GS-AP-MW-01R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,298.45 N; 2,066,970.17 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.43 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
145			Sandstone Mudstone, very fine grained, hard, very thin bedded to medium bedded, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. <i>(Continued)</i>		AH	140.0 - 150.0	10.0			
150										
155						AH	150.0 - 160.0	10.0		
156.0	332.4									
157.0	331.4		Sandstone Mudstone, very fine grained, soft, very thin bedded to medium bedded, dry, interbedded, Potential fracture zone, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.							
160										
165			Sandstone Mudstone, very fine grained, hard, very thin bedded to medium bedded, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.		AH	160.0 - 170.0	10.0			
170										
175					AH	170.0 - 180.0	10.0			

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-01R</u>	Stantec Boring No. <u>GS-AP-MW-01R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,298.45 N; 2,066,970.17 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.43 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180			Sandstone Mudstone, very fine grained, hard, very thin bedded to medium bedded, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. <i>(Continued)</i>						
185				AH		180.0 - 190.0	10.0		
188.0	300.4								
189.0	299.4		Sandstone Mudstone, very fine grained, soft, very thin bedded to medium bedded, dry, interbedded, Potential fracture zone, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.						
190									
195			Shale Mudstone, very fine grained, hard, very thin bedded to medium bedded, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.						
196.0	292.4			AH		190.0 - 200.0	10.0		
200			Coal, black, soft, thick bedded, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
200.0	288.4								
205			Sandstone, fine grained, hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.						
209.0	279.4			AH		200.0 - 210.0	10.0		
210			Shale (80%) With Coal (20%)						
212.0	276.4		Shale, very fine grained, soft, very thin bedded to thin, highly weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N1. Thin coal seam observed.						
215									
215.0	273.4			AH		210.0 - 220.0	10.0		
			Shale, very fine grained, soft, very thin bedded,						


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Client Borehole ID <u>GS-AP-MW-01R</u>	Stantec Boring No. <u>GS-AP-MW-01R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,298.45 N; 2,066,970.17 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.43 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
	219.0	269.4	moderately weathered, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
220			Mudstone Sandstone, fine grained, hard, thin to medium bedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4. <i>(Continued)</i>						
225			Sandstone, fine grained, hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.	AH		220.0 - 230.0	10.0		
230									
235									
	237.0	251.4							
240	240.5	247.9	Mudstone Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1.						
245			Sandstone, fine grained, hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.	AH		240.0 - 250.0	10.0		
	246.0	242.4							
	248.0	240.4	Shale, very fine grained, soft, very thin bedded, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
250			Sandstone, fine grained, hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.	AH		250.0 - 255.0	5.0		

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Client Borehole ID <u>GS-AP-MW-01R</u>	Stantec Boring No. GS-AP-MW-01R
Client <u>Southern Company Services</u>	Boring Location <u>1,320,298.45 N; 2,066,970.17 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.43 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
255	255.0	233.4	 Munsell color N4.						

No Refusal /
Bottom of Hole at 255.0 Ft.

Top of Rock = 23.5 Ft.
Top of Rock Elevation = 464.9 Ft.

Client Borehole ID	<u>GS-AP-MW-03V</u>	Stantec Boring No.	<u>GS-AP-MW-03V</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,323,698.58 N; 2,067,326.36 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>510.55 ft</u>
		Elevation Datum	<u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>9/10/21</u>
		Completed	<u>9/11/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>151.5 ft</u>
		Date/Time	<u></u>
Inspector	<u>M. Padgett / W. Padgett</u>	Depth to Water	<u>152.0 ft</u>
	<u>Logger M. Padgett / W. Padgett</u>	Date/Time	<u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>
		Drop	<u>N/A</u>
		Efficiency	<u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	510.6	Top of Hole						
			LEAN CLAY SOME GRAVEL, CL, 7.5YR 5/6 (strong brown), low plasticity, firm, moist, Fill material, [FILL]						
	4.0	506.6		RS		0.0 - 7.0	7.0	N/A	
5			SANDY SILT WITH GRAVEL, ML, 7.5YR 4/6 (strong brown), low plasticity, firm, moist, Lensed, Lenses of in situ weathered bedrock gravel						
10	10.0	500.6		RS		7.0 - 17.0	10.0	N/A	
			SANDY SILT WITH GRAVEL, ML, 10YR 4/6 (dark yellowish brown), fine to coarse, non to low plasticity, Blocky, In situ weathered bedrock gravel						
15	16.0	494.6							
			SANDY SILT WITH GRAVEL, ML, 7.5YR 7/6 (reddish yellow), fine to coarse, non to low plasticity, Blocky, In situ weathered bedrock gravel						
20	21.0	489.6		RS		17.0 - 27.0	10.0	N/A	
			Sandstone, medium grained, hard, thick bedded, highly weathered, Munsell color 5Y 6/1.						
25	27.0	483.6							
			Sandstone, fine grained to medium grained, hard, medium bedded to thick bedded, slightly weathered, Munsell color 5Y 6/1.						
30									










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Client Borehole ID <u>GS-AP-MW-03V</u>	Stantec Boring No. <u>GS-AP-MW-03V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,698.58 N; 2,067,326.36 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>510.55 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone, fine grained to medium grained, hard, medium bedded to thick bedded, slightly weathered, Munsell color 5Y 6/1. <i>(Continued)</i>		RS	27.0 - 37.0	3.0	N/A	
35					RS	37.0 - 40.0	3.0	N/A	
40									
45					AH	40.0 - 50.0	10.0		
50									
55				AH	50.0 - 60.0	10.0			
60									
65	66.0	444.6		AH	60.0 - 70.0	10.0			

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-03V</u>	Stantec Boring No. <u>GS-AP-MW-03V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,698.58 N; 2,067,326.36 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>510.55 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70	71.0	439.6	   Shale, very fine grained, soft, laminated, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4. <i>(Continued)</i>						
74	74.0	436.6	   Mudstone Sandstone, fine grained to very fine grained, moderately hard, thin bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4.						
75			   Mudstone Shale, very fine grained, soft to moderately hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N4		AH	70.0 - 80.0	10.0		
80									
85					AH	80.0 - 90.0	10.0		
90									
95					AH	90.0 - 100.0	10.0		
100									

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-03V</u>	Stantec Boring No. <u>GS-AP-MW-03V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,698.58 N; 2,067,326.36 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>510.55 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		)	Mudstone Shale, very fine grained, soft to moderately hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N4 <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110)							
115		)			AH	110.0 - 120.0	10.0		
120)							
125		)			AH	120.0 - 130.0	10.0		
130)							
135		)			AH	130.0 - 140.0	10.0		
140)							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-03V</u>	Stantec Boring No. <u>GS-AP-MW-03V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,698.58 N; 2,067,326.36 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>510.55 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145			Mudstone Shale, very fine grained, soft to moderately hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N4 <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
150					AH	150.0 - 160.0	10.0		
160									
165	165.0	345.6			AH	160.0 - 170.0	10.0		
170	169.0	341.6	Mudstone Sandstone, fine grained to very fine grained, hard to moderately hard, thin to medium bedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3						
172.5	338.1		Coal, soft, medium bedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1. Pratt coal seam						
175			Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to thin bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N4		AH	170.0 - 180.0	10.0		

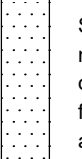
STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAI.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-03V</u>	Stantec Boring No. <u>GS-AP-MW-03V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,698.58 N; 2,067,326.36 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>510.55 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180	181.0	329.6	Coal Shale, very fine grained, soft to very soft, very thin bedded to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N4	AH	180.0 - 190.0	10.0			
185	183.5	327.1							
190	194.0	316.6	Shale Mudstone, very fine grained, soft to moderately hard, laminated to thin bedded, moderately weathered, moist, interbedded and fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N4	AH	190.0 - 200.0	10.0			
195									
200			Mudstone Sandstone, fine grained to very fine grained, moderately hard, thin bedded, slightly weathered, moist, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3	AH	200.0 - 210.0	10.0			
205	207.0	303.6							
210	211.0	299.6	Coal, very fine grained, soft, medium bedded to thick bedded, freshly weathered, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1	AH	210.0 - 220.0	10.0			
215	213.0	297.6							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAI R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-03V</u>	Stantec Boring No. <u>GS-AP-MW-03V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,698.58 N; 2,067,326.36 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>510.55 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
220	220.0	290.6	 <p>Sandstone, fine grained to medium grained, hard, medium bedded to thick bedded, slightly weathered, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color 5Y 6/1. <i>(Continued)</i></p>						

No Refusal /
Bottom of Hole at 220.0 Ft.

Top of Rock = 21.0 Ft.
Top of Rock Elevation = 489.6 Ft.

Client Borehole ID	<u>GS-AP-MW-05R</u>	Stantec Boring No.	<u>GS-AP-MW-05R</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,324,768.77 N; 2,065,423.21 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>486.20 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>7/20/21</u>	Completed <u> </u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>142.0 ft</u>	Date/Time <u>7/28/21</u>
Inspector	<u>J. Massey</u> Logger <u>J. Massey</u>	Depth to Water	<u>143.7 ft</u>	Date/Time <u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u> Efficiency <u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Approved By	<u>E. Smith</u>	

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Rock Core:		RQD %	Run Ft	Rec. Ft	Rec. %		
0	0.0	486.2	Top of Hole						
	1.6	484.6	Overburden Brown woody fill in clay						
	3.6	482.6	SILTY POORLY GRADED SAND WITH CLAY, SP, 7.5YR 8/6 (reddish yellow), fine, low plasticity, loose to medium dense, moist, iron oxide staining, Brown to tan silty fine sand with light red oxide staining	RS		0.0 - 7.0	7.0	N/A	
5			SILTY POORLY GRADED SAND WITH CLAY, SP, 7.5YR 7/8 (reddish yellow), fine, low plasticity, loose to medium dense, moist, iron oxide staining, Blocky, Darker Brown to tan silty clayey fine sand loam interbedded with red or clay with light red oxide staining and very dark brown mn stains						
10	11.0	475.2	SILTY POORLY GRADED SAND WITH CLAY, SP, 10YR 8/4 (very pale brown), fine, low plasticity, medium dense to hard, moist, iron oxide staining, Blocky, Olive gray brown silty fine sand interbedded with or brown clay with light red oxide staining and very dark brown mn stains, fabric noted	RS		7.0 - 17.0	10.0	N/A	
15	16.2	470.0	WELL GRADED GRAVEL WITH CLAY LITTLE SAND, GW, 10YR 8/2 (very pale brown), fine, low plasticity, medium dense to hard, moist, iron oxide staining, Blocky, Top of partially weathered rock with sandstone gravel, Olive gray brown silty fine sand interbedded with or brown clay , gravelly						
20	20.4	465.8	Siltstone (70%) With Sandstone (30%)	RS		17.0 - 27.0	10.0	N/A	Gravelly zone at 22 ft bgs
	24.0	462.2	Siltstone, very dark gray and light red orange, very fine grained to fine grained, hard, thin bedded, moderately weathered, iron oxide staining, interbedded, 0° to 15° bedding angle, Top of competent rock at approximately 20.4 feet bgs. Fe and mn staining on bedding planes in parts.						
25				RS		27.0 - 30.0	3.0	N/A	
30									

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SUBSURFACE LOG

Client Borehole ID <u>GS-AP-MW-05R</u>	Stantec Boring No. <u>GS-AP-MW-05R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,324,768.77 N; 2,065,423.21 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>486.20 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30		x x	Siltstone (60%) With Sandstone (40%) Siltstone, dark gray and light olive white, fine grained, hard, thin bedded, slightly weathered, interbedded, lithic, 0° bedding angle, Silty gray fine sandstone, fracture around 45 feet bgs <i>(Continued)</i>		AH	30.0 - 40.0	10.0		
35		x x			AH	40.0 - 50.0	10.0		water
40		x x			AH	50.0 - 60.0	10.0		v sandy gradation from finer to coarser w depth 45 to 65
45		x x			AH	60.0 - 70.0	10.0		
50		x x							
55	55.0	431.2	Sandstone (70%) With Siltstone (30%) Sandstone, dark gray and pale olive white, fine grained to coarse grained, hard, thin bedded, interbedded, lithic, 0° bedding angle, Gray, fine to coarse sandstone, argillaceous, interbedded with dark gray siltstone, normally graded with depth		AH				
60									
65									

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Client Borehole ID <u>GS-AP-MW-05R</u>	Stantec Boring No. <u>GS-AP-MW-05R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,324,768.77 N; 2,065,423.21 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>486.20 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70		•••••	Sandstone (70%) With Siltstone (30%) Sandstone, dark gray and pale olive white, fine grained to coarse grained, hard, thin bedded, interbedded, lithic, 0° bedding angle, Gray, fine to coarse sandstone, argillaceous, interbedded with dark gray siltstone, normally graded with depth <i>(Continued)</i>						
75		•••••		AH	70.0 - 80.0	10.0			
80		•••••							
85	85.0	401.2	Siltstone (60%) With Sandstone (40%) Siltstone, dark gray and pale olive white, very fine grained to fine grained, hard, thin bedded, interbedded, lithic, 0° bedding angle, Gray, fine sandstone, argillaceous, interbedded with dark gray siltstone						
90		x x x		AH	80.0 - 90.0	10.0			
95		x x x		AH	90.0 - 100.0	10.0			
100		x x x							

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Client Borehole ID <u>GS-AP-MW-05R</u>	Stantec Boring No. <u>GS-AP-MW-05R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,324,768.77 N; 2,065,423.21 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>486.20 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology				Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		x x	Siltstone (60%) With Sandstone (40%) Siltstone, dark gray and pale olive white, very fine grained to fine grained, hard, thin bedded, interbedded, lithic, 0° bedding angle, Gray, fine sandstone, argillaceous, interbedded with dark gray siltstone (Continued)		AH	100.0 - 110.0	10.0		
115	115.0	371.2	. .	Sandstone (70%) With Siltstone (30%) Sandstone, dark gray and pale white olive, fine grained to coarse grained, hard, thin bedded, hydrocarbon staining, interbedded, lithic, 0° bedding angle, Pale gray sandstone, argillaceous, interbedded with dark gray siltstone, normally graded with depth, slightly carbonaceous at 130 feet		AH	110.0 - 120.0	10.0	
125					AH	120.0 - 130.0	10.0		
133.0	353.2								
135			■	Coal (90%) With Siltstone (10%) Coal, very dark black gray with pale gray olive, hydrocarbon staining, carbonaceous, Black coal, vitreous, blocky	AH	130.0 - 140.0	10.0		Top of Pratt Coal
138.0	348.2								
140									

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Client Borehole ID <u>GS-AP-MW-05R</u>	Stantec Boring No. <u>GS-AP-MW-05R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,324,768.77 N; 2,065,423.21 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>486.20 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145	341.2	Sandstone (70%) With Siltstone (30%) Sandstone, dark gray and pale white olive, very fine grained to fine grained, hard, thin bedded, interbedded, lithic, 0° bedding angle, gray, pale olive sandstone, argillaceous interbedded with gray siltstone, normally graded with depth <i>(Continued)</i> Siltstone (80%) With Coal (20%) Siltstone, very dark gray with pale gray olive, very fine grained, hydrocarbon staining, carbonaceous, Very dark gray to gray siltstone, laminated; Black coal in parts, vitreous, blocky		AH	140.0 - 150.0	10.0		Nickel Plate Seam
150	336.2							
155			Sandstone (70%) With Siltstone (30%) Sandstone, dark gray and pale white olive, very fine grained to fine grained, hard, thin bedded, interbedded, lithic, 0° bedding angle, Gray, pale olive sandstone, argillaceous, interbedded with gray siltstone		AH	150.0 - 160.0	10.0	
165				AH	160.0 - 170.0	10.0		
170	316.2	Coal (70%) With Siltstone (30%) Coal, very dark black gray with pale gray olive, hydrocarbon staining, carbonaceous, Black coal, vitreous, blocky mixed with gray siltstone		AH	170.0 - 180.0	10.0		Top of American Coal Seam
173.0	313.2							

Client Borehole ID <u>GS-AP-MW-05R</u>	Stantec Boring No. <u>GS-AP-MW-05R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,324,768.77 N; 2,065,423.21 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>486.20 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180		301.2	Sandstone (80%) With Siltstone (20%) Sandstone, dark gray and pale white olive, fine grained to coarse grained, hard, thin bedded, hydrocarbon staining, interbedded, lithic, 0° bedding angle, Pale gray, white fine to coarse sandstone interbedded with dark gray siltstone, normally graded with depth (Continued)						
185	185.0	301.2	No Refusal / Bottom of Hole at 185.0 Ft. Top of Rock = 20.4 Ft. Top of Rock Elevation = 465.8 Ft.	AH		180.0 - 190.0	5.0		

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Client Borehole ID	<u>GS-AP-MW-09R</u>	Stantec Boring No.	<u>GS-AP-MW-09R</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,322,413.65 N; 2,062,685.53 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>418.66 ft</u>
		Elevation Datum	<u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>7/13/21</u>
		Completed	<u>7/14/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>60.3 ft</u>
		Date/Time	<u>11/5/21</u>
Inspector	<u>W. Padgett</u>	Logger	<u>W. Padgett</u>
		Depth to Water	<u>61.0 ft</u>
		Date/Time	<u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>
		Drop	<u>N/A</u>
		Efficiency	<u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	418.7						
	1.5	417.2						
5	5.5	413.2		RS	0.0 - 7.0	7.0	N/A	
	8.5	410.2						
10				RS	7.0 - 14.5	7.5	N/A	
15	17.0	401.7		RS	14.5 - 17.0	2.5	N/A	
20				RS	17.0 - 22.0	5.0	N/A	
25	24.3	394.4		RS	22.0 - 27.0	5.0	N/A	
	28.3	390.4		RS	27.0 - 30.0	3.0	N/A	
30								

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Client Borehole ID <u>GS-AP-MW-09R</u>	Stantec Boring No. <u>GS-AP-MW-09R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,322,413.65 N; 2,062,685.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>418.66 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone, light gray, fine grained, hard, thin to medium bedded, moderately weathered, dry, iron oxide staining, 45 degree fracture with Fe oxide staining at 29.5 feet <i>(Continued)</i>						
35	35.0	383.7		Sandstone Mudstone, gray to dark gray, very fine grained to fine grained, soft to moderately hard, thin bedded, dry to damp, interbedded, Thin sandstone interbeds. Fracture 48-50 '. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.	AH	30.0 - 40.0	10.0		
40									
45				AH	40.0 - 50.0	10.0			
50	50.0	368.7	Shale Mudstone, dark gray, very fine grained, soft to moderately hard, very thin to medium bedded, moderately weathered, dry to damp, Possible fracture 88-89 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
55				AH	50.0 - 60.0	10.0			
60									
65				AH	60.0 - 70.0	10.0			

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Client Borehole ID <u>GS-AP-MW-09R</u>	Stantec Boring No. <u>GS-AP-MW-09R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,322,413.65 N; 2,062,685.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>418.66 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70		)	Shale Mudstone, dark gray, very fine grained, soft to moderately hard, very thin to medium bedded, moderately weathered, dry to damp, Possible fracture 88-89 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
75		)		AH	70.0 - 80.0	10.0			
80)							
85		)		AH	80.0 - 90.0	10.0			
90	90.0	328.7							
93.5	325.2			Coal, black, soft, thick bedded, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.					
95		)		Mudstone Shale, dark gray to black, very fine grained, soft, thin bedded to medium bedded, moderately weathered, damp, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.	AH	90.0 - 100.0	10.0		
98.0	320.7)							
100		.)		Sandstone, gray, fine grained, moderately hard, thin bedded to medium bedded, slightly weathered, damp, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.					
102.0	316.7	.)							

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Client Borehole ID <u>GS-AP-MW-09R</u>	Stantec Boring No. <u>GS-AP-MW-09R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,322,413.65 N; 2,062,685.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>418.66 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105			Shale, dark gray to black, very fine grained, very soft, very thin to thin bedded, highly weathered, damp, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
	107.0	311.7							
110			Sandstone Mudstone, dark gray to gray, very fine grained to fine grained, soft to moderately hard, thin bedded to medium bedded, moderately weathered, damp, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	110.0 - 120.0	10.0		
	117.0	301.7							
120			Sandstone, gray, fine grained, moderately hard, thin bedded to medium bedded, slightly weathered, damp, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
	124.0	294.7							
125			Shale, dark gray to black, very fine grained, very soft, very thin to thin bedded, highly weathered, damp, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	120.0 - 130.0	10.0		
	129.5	289.2							
130			Coal, black, soft, thick bedded, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
	132.5	286.2							
135			Sandstone Mudstone, dark gray to gray, very fine grained to fine grained, soft to moderately hard, thin bedded to medium bedded, moderately weathered, damp, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	130.0 - 140.0	10.0		
	138.0	280.7							
140			Sandstone, gray, fine grained to medium grained, hard, thin bedded to medium bedded, slightly weathered, damp, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
	140.0	278.7							

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Client Borehole ID <u>GS-AP-MW-09R</u>	Stantec Boring No. GS-AP-MW-09R
Client <u>Southern Company Services</u>	Boring Location <u>1,322,413.65 N; 2,062,685.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>418.66 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
			No Refusal / Bottom of Hole at 140.0 Ft. Top of Rock = 17.0 Ft. Top of Rock Elevation = 401.7 Ft.						

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Client Borehole ID <u>GS-AP-MW-10R</u>		Stantec Boring No. <u>GS-AP-MW-10R</u>	
Client <u>Southern Company Services</u>		Boring Location <u>1,321,137.39 N; 2,062,567.40 E</u>	
Project Number <u>175520214</u>		Surface Elevation <u>450.06 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name <u>Gorgas Ash Pond Well Installation & Abandonment</u>		Date Started <u>7/11/21</u>	Completed <u>7/12/21</u>
Project Location <u>Walker Co, Parrish, Alabama</u>		Depth to Water <u>143.7 ft</u>	Date/Time <u>7/28/21</u>
Inspector <u>W. Padgett</u>	Logger <u>W. Padgett</u>	Depth to Water <u>145.5 ft</u>	Date/Time <u>12/14/21</u>
Drilling Contractor <u>Cascade Drilling</u>		Drill Rig Type and ID <u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size) <u>4" X 6" Rotasonic / 6" Air Hammer</u>			
Sampler Hammer Type <u>N/A</u>	Weight <u>N/A</u>	Drop <u>N/A</u>	Efficiency <u>N/A</u>
Reviewed By <u>J. Massey</u>		Approved By <u>E. Smith</u>	

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	450.1						
								Top of Hole
								Crushed stoneFill material
	1.5	448.6						
5				RS	0.0 - 7.0	7.0	N/A	
								SILT TRACE GRAVEL, ML, 7.5YR 5/6 (strong brown) to 10YR 6/6 (brownish yellow), non to low plasticity, firm, dry
	8.0	442.1						
10				RS	7.0 - 15.0	8.0	N/A	
								SILT WITH GRAVEL, ML, 7.5YR 5/6 (strong brown) to 10YR 6/6 (brownish yellow), non to low plasticity, firm, dry, Fine to coarse gravel.
	12.0	438.1						
								WELL GRADED GRAVEL WITH SILT, GW, 7.5YR 5/6 (strong brown) to 10YR 6/6 (brownish yellow), fine to coarse, dense, dry
	14.3	435.8						
15				RS	15.0 - 17.0	2.0	N/A	
	15.0	435.1						Shale Mudstone, light gray to light brown, very fine grained, soft, thin bedded, highly weathered, interbedded
								Mudstone Shale, gray dark gray, very fine grained, moderately hard, thin to medium bedded, moderately weathered, iron oxide staining, Fe oxide staining 18.5' - 19'
20				RS	17.0 - 27.0	10.0	N/A	
	21.0	429.1						Mudstone Sandstone, light gray and dark gray, fine grained to very fine grained, soft to moderately hard, thin to medium bedded, moderately weathered, iron oxide staining, interbedded and fossiliferous, Fe oxide staining 24.75' - 25'
								Mudstone Sandstone, light gray and dark gray, fine grained to very fine grained, soft to moderately hard, thin to medium bedded, moderately weathered, iron oxide staining, interbedded and fossiliferous, Fe oxide staining 24.75' - 25'
25				RS	27.0 - 30.0	3.0	N/A	
								Mudstone Sandstone, light gray and dark gray, fine grained to very fine grained, soft to moderately hard, thin to medium bedded, moderately weathered, iron oxide staining, interbedded and fossiliferous, Fe oxide staining 24.75' - 25'
30	30.0	420.1						

Client Borehole ID <u>GS-AP-MW-10R</u>	Stantec Boring No. <u>GS-AP-MW-10R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,137.39 N; 2,062,567.40 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>450.06 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30)	Shale Mudstone, dark gray, very fine grained, soft to moderately hard, very thin to medium bedded, moderately weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
35)		AH	30.0 - 40.0	10.0			
40)							
45)		AH	40.0 - 50.0	10.0			
50)							
55)		AH	50.0 - 60.0	10.0			
60)							
65)		AH	60.0 - 70.0	10.0			

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Client Borehole ID <u>GS-AP-MW-10R</u>	Stantec Boring No. <u>GS-AP-MW-10R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,137.39 N; 2,062,567.40 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>450.06 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70		(Shale Mudstone, dark gray, very fine grained, soft to moderately hard, very thin to medium bedded, moderately weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
		(
		(
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		(
75		(AH	70.0 - 80.0	10.0	
		(
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80		(
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85		(AH	80.0 - 90.0	10.0		
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90		(
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95		(AH	90.0 - 100.0	10.0		
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Client Borehole ID <u>GS-AP-MW-10R</u>	Stantec Boring No. <u>GS-AP-MW-10R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,137.39 N; 2,062,567.40 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>450.06 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
105)	Shale Mudstone, dark gray, very fine grained, soft to moderately hard, very thin to medium bedded, moderately weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	100.0 - 110.0	10.0			
)								
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110)								
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115)				AH	110.0 - 120.0	10.0		
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120)								
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125)			AH	120.0 - 130.0	10.0			
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130)								
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135)			AH	130.0 - 140.0	10.0			
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140)								

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Client Borehole ID <u>GS-AP-MW-10R</u>	Stantec Boring No. <u>GS-AP-MW-10R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,137.39 N; 2,062,567.40 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>450.06 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145		Shale Mudstone, dark gray, very fine grained, soft to moderately hard, very thin to medium bedded, moderately weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
150								
155				AH	150.0 - 160.0	10.0		
160	160.5 289.6							
163.5	286.6	Coal, black, soft, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
165		Sandstone, gray, fine grained, moderately hard, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	160.0 - 170.0	10.0		
170								
173.0	277.1							
175		Shale, dark gray to black, very fine grained, soft, very thin bedded, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	170.0 - 180.0	10.0		
176.0	274.1							

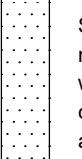
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Client Borehole ID <u>GS-AP-MW-10R</u>	Stantec Boring No. <u>GS-AP-MW-10R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,137.39 N; 2,062,567.40 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>450.06 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180			Sandstone, light gray, fine grained, moderately hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
185				AH	180.0 - 190.0	10.0			
190									
195									
200	200.0	250.1	Shale, very dark gray, very fine grained, soft, very thin bedded, highly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
203.0		247.1							
205			Coal, black, soft, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
206.0		244.1		AH	200.0 - 210.0	10.0			
210			Sandstone, light gray to gray, fine grained to medium grained, hard, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
215				AH	210.0 - 220.0	10.0			

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Client Borehole ID <u>GS-AP-MW-10R</u>	Stantec Boring No. <u>GS-AP-MW-10R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,137.39 N; 2,062,567.40 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>450.06 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
220	220.0	230.1							

Sandstone, light gray to gray, fine grained to medium grained, hard, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.

(Continued)

No Refusal /
Bottom of Hole at 220.0 Ft.

Top of Rock = 14.5 Ft.
Top of Rock Elevation = 435.6 Ft.

Client Borehole ID	<u>GS-AP-MW-11R</u>	Stantec Boring No.	<u>GS-AP-MW-11R</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,320,922.39 N; 2,063,407.72 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>453.05 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>7/6/21</u>	Completed <u>7/7/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>85.0 ft</u>	Date/Time <u>7/10/21</u>
Inspector	<u>A. Stevens</u>	Logger	<u>A. Stevens</u>	Depth to Water <u>75.3 ft</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u>
			Efficiency	<u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Approved By	<u>E. Smith</u>	

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	453.1						Top of Hole
	0.4	452.7						Overburden
	1.6	451.5						
	2.6	450.5						FAT CLAY TRACE GRAVEL, CH, 10YR 5/3 (brown), medium to high plasticity, firm, dry, no odor, Blocky
	4.4	448.7		RS	0.0 - 6.0	6.0	N/A	
	6.0	447.1						SANDY SILT, ML, 5YR 4/6 (yellowish red), very fine to fine, low plasticity, dry
	7.1	446.0						LEAN CLAY, CL, 5YR 5/3 (reddish brown) to 7.5YR 6/4 (light brown), low to medium plasticity, dry
								SANDY SILT, ML, 10YR 6/6 (brownish yellow), low plasticity, firm, dry, [FILL]
								SANDY SILT WITH GRAVEL, ML, 7.5YR 4/4 (brown), medium to high plasticity, firm, wet, Sandstone clasts present, [FILL]
				RS	6.0 - 16.0	4.5	N/A	
								SANDY SILT WITH GRAVEL, ML, 7.5YR 5/4 (brown), low plasticity, firm, dry to moist, Angular Sandstone clasts present
	18.0	435.1						
								SILTY WELL GRADED GRAVEL, GW, 7.5YR 4/6 (strong brown), loose, well graded
				RS	16.0 - 22.5	7.5	N/A	
	22.5	430.6						
	23.2	429.9						SILT WITH GRAVEL, MH, 7.5YR 5/6 (strong brown), medium to high plasticity, firm, moist, no odor
				RS	22.5 - 26.0	3.5	N/A	
	24.8	428.3						SILTY WELL GRADED GRAVEL, GW, 7.5YR 5/6 (strong brown), loose, well graded
								Sandstone (95%) With Mudstone (5%)
								Sandstone, dark yellow orange to dark gray, medium grained, hard, thin bedded, damp, iron oxide

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Client Borehole ID <u>GS-AP-MW-11R</u>	Stantec Boring No. <u>GS-AP-MW-11R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,922.39 N; 2,063,407.72 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>453.05 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			staining, quartz Sandstone (95%) With Mudstone (5%) Sandstone, dark yellow orange to dark gray, medium grained, hard, thin bedded, damp, iron oxide staining, quartz <i>(Continued)</i>		RS	26.0 - 36.0	7.0	N/A	
38.0	415.1				RS	36.0 - 40.0	1.0	N/A	
40.0	413.1		Mudstone, very fine grained, soft, highly weathered, Potential fracture zone						
46.5	406.6		Sandstone, dark gray gray, medium grained, hard, thin bedded, damp, iron oxide staining, quartz		RS	40.0 - 46.0	5.0	N/A	
50.0	403.1		Sandstone (95%) With Mudstone (5%) Sandstone, dark yellow orange to dark gray, medium grained, hard, interbedded, damp, no staining, quartz		RS	46.0 - 50.0	4.0	N/A	
55			Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	50.0 - 60.0	10.0		
63.0	390.1								
65.0	388.1		Mudstone Sandstone, gray, fine grained, moderately hard, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	60.0 - 70.0	10.0		

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Client Borehole ID <u>GS-AP-MW-11R</u>	Stantec Boring No. <u>GS-AP-MW-11R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,922.39 N; 2,063,407.72 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>453.05 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70)	Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
75	▼)		AH	70.0 - 80.0	10.0			
80)							
85	▽)		AH	80.0 - 90.0	10.0			
90)							
95)		AH	90.0 - 100.0	10.0			
100)							

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Client Borehole ID <u>GS-AP-MW-11R</u>	Stantec Boring No. <u>GS-AP-MW-11R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,922.39 N; 2,063,407.72 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>453.05 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		)	Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110)							
115		)			AH	110.0 - 120.0	10.0		
120)							
125		)		AH	120.0 - 130.0	10.0			
130)							
133.0	320.1)							
135		.)	Sandstone, dark gray gray, medium grained, hard, dry, quartz, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	130.0 - 140.0	10.0		
136.0	317.1	.)							
139.0	314.1	■	Coal, black, soft, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
140		.)							

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Client Borehole ID <u>GS-AP-MW-11R</u>	Stantec Boring No. <u>GS-AP-MW-11R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,922.39 N; 2,063,407.72 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>453.05 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
142.0	311.1		Sandstone, dark gray gray, medium grained, hard, dry, quartz, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>	AH		140.0 - 150.0	10.0		
143.0	310.1								
145			Sandstone, dark gray, wet, no staining, Water producing fracture. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
150			Mudstone Shale, gray to dark gray, very fine grained, moist, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
151.0	302.1		Shale Coal, black, soft, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.	AH		150.0 - 160.0	10.0		
152.0	301.1								
155			Mudstone Shale, gray to dark gray, very fine grained, wet, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
160	160.0	293.1							

No Refusal /
Bottom of Hole at 160.0 Ft.

Top of Rock = 24.8 Ft.
Top of Rock Elevation = 428.3 Ft.

Client Borehole ID	<u>GS-AP-MW-13R</u>	Stantec Boring No.	<u>GS-AP-MW-13R</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,319,695.90 N; 2,063,863.84 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>458.19 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>6/25/21</u>	Completed <u>6/27/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>99.3 ft</u>	Date/Time <u>11/8/21</u>
Inspector	<u>W. Padgett</u>	Logger	<u>W. Padgett</u>	Depth to Water <u>99.8 ft</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u>
			<u>N/A</u>	Efficiency <u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>	

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	458.2	Top of Hole						
			LEAN CLAY WITH SAND, CL, 7.5YR 6/6 (reddish yellow) to 7.5YR 5/6 (strong brown), low plasticity, firm, dry, Homogeneous, Fill material, [FILL]		RS	0.0 - 7.0	7.0	N/A	
5	6.0	452.2	GRAVELLY SILT, ML, 10YR 7/6 (yellow), very fine, non to low plasticity, firm, dry, Blocky, Fine to coarse gravel of in situ weathered rock						
10	12.0	446.2	SILTY WELL GRADED GRAVEL, GW-GM, 10YR 7/6 (yellow), fine to coarse, very dense, Lensed, Lenses of in situ weathered sandstone and mudstone		RS	7.0 - 17.0	10.0	N/A	
15	18.0	440.2	CLAYEY WELL GRADED GRAVEL, GW-GC, 10YR 5/6 (yellowish brown) and 2.5Y 5/1 (gray), fine to coarse, very dense, moist, Lensed, Lenses of in situ weathered sandstone and mudstone		RS	17.0 - 27.0	10.0	N/A	
20	28.8	429.4							
25									
30									

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Client Borehole ID <u>GS-AP-MW-13R</u>	Stantec Boring No. <u>GS-AP-MW-13R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,695.90 N; 2,063,863.84 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>458.19 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Shale, gray, very fine grained, very soft to soft, thin bedded, moderately weathered to highly weathered, dry to moist <i>(Continued)</i>		RS	27.0 - 37.0	10.0	N/A	
35	35.0	423.2							
			Sandstone, light gray and red, fine grained, moderately hard, moderately weathered, moist, iron oxide staining, Vertical fracture observed 36 - 37 with strong Fe oxide staining		RS	37.0 - 40.0	3.0	N/A	
40	42.0	416.2							
45			Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	40.0 - 50.0	10.0		
50									
55					AH	50.0 - 60.0	10.0		
60									
65				AH	60.0 - 70.0	10.0			

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Client Borehole ID <u>GS-AP-MW-13R</u>	Stantec Boring No. <u>GS-AP-MW-13R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,695.90 N; 2,063,863.84 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>458.19 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70		()	Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
75		()		AH	70.0 - 80.0	10.0			
80		()							
85		()		AH	80.0 - 90.0	10.0			
90		()							
95		()		AH	90.0 - 100.0	10.0			
100		()							
		()							
		()							
		()							

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Client Borehole ID <u>GS-AP-MW-13R</u>	Stantec Boring No. <u>GS-AP-MW-13R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,695.90 N; 2,063,863.84 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>458.19 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
105		)	Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
)								
)								
110)								
)								
)								
115)				AH	110.0 - 120.0	10.0		
)								
)								
120)								
)								
)								
125)			AH	120.0 - 130.0	10.0			
)								
)								
130)								
)								
)								
135)			AH	130.0 - 140.0	10.0			
)								
)								
140)								

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Client Borehole ID <u>GS-AP-MW-13R</u>	Stantec Boring No. <u>GS-AP-MW-13R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,695.90 N; 2,063,863.84 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>458.19 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145			Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
150	151.0	307.2							
155			Sandstone, gray, fine grained, moderately hard, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	150.0 - 160.0	10.0		
158.0	300.2								
160	160.0	298.2	Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
162.0	296.2		Coal, black, soft, thick bedded, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
165			Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	160.0 - 170.0	10.0		
170	171.0	287.2							
172.0	286.2		Shale Coal, black, soft, thick bedded, moist, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
175			Mudstone Shale, gray to dark gray, very fine grained, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	170.0 - 180.0	10.0		

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Client Borehole ID <u>GS-AP-MW-13R</u>	Stantec Boring No. GS-AP-MW-13R
Client <u>Southern Company Services</u>	Boring Location <u>1,319,695.90 N; 2,063,863.84 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>458.19 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180	180.0	278.2	☺						

No Refusal /
 Bottom of Hole at 180.0 Ft.

Top of Rock = 28.8 Ft.
 Top of Rock Elevation = 429.4 Ft.

Client Borehole ID	<u>GS-AP-MW-14R</u>	Stantec Boring No.	<u>GS-AP-MW-14R</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,318,594.55 N; 2,063,763.70 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>471.94 ft</u> Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>6/27/21</u> Completed <u>6/28/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>105.5 ft</u> Date/Time <u>11/8/21</u>
Inspector	<u>W. Padgett</u> Logger <u>W. Padgett</u>	Depth to Water	<u>105.6 ft</u> Date/Time <u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u> Drop <u>N/A</u> Efficiency <u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	471.9							
			Top of Hole						
	2.0	469.9	 LEAN CLAY SOME SAND, CL, 5YR 5/3 (reddish brown), low to medium plasticity, firm, dry, [FILL]						
	7.3	464.7	 SANDY SILT, ML, 5YR 4/6 (yellowish red) and 7.5YR 5/6 (strong brown), low plasticity, firm, dry to moist, [FILL]	RS		0.0 - 7.0	7.0	N/A	
	11.5	460.4	 WELL GRADED GRAVEL WITH SILT, GW-GM, 7.5YR 5/4 (brown) to 10YR 5/4 (yellowish brown), fine to coarse, dense, dry, Lensed, Gravel consists of lenses of in situ weathered rock						
	19.8	452.2	 Sandstone, light gray and pale orange, medium grained, hard, moderately weathered, iron oxide staining, High angle fracture 18.5 - 19.5	RS		7.0 - 17.0	10.0	N/A	
	27.0	441.9	 Sandstone Mudstone, light gray to dark gray, fine grained to very fine grained, moderately hard to soft, thin to medium bedded, moderately weathered, interbedded and bioturbated	RS		17.0 - 27.0	10.0	N/A	
	30.0	441.9		RS		27.0 - 30.0	3.0	N/A	

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Client Borehole ID <u>GS-AP-MW-14R</u>	Stantec Boring No. <u>GS-AP-MW-14R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,594.55 N; 2,063,763.70 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>471.94 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone Mudstone, gray to dark gray, fine grained, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
35				AH		30.0 - 40.0	10.0		
40									
45				AH		40.0 - 50.0	10.0		
46.0	425.9								
50			Sandstone Mudstone, gray to dark gray, fine grained, wet, Water bearing fracture, lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
50.0	421.9								
55			Sandstone Mudstone, gray to dark gray, fine grained, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
55				AH		50.0 - 60.0	10.0		
60									
65				AH		60.0 - 70.0	10.0		

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Client Borehole ID <u>GS-AP-MW-14R</u>	Stantec Boring No. <u>GS-AP-MW-14R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,594.55 N; 2,063,763.70 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>471.94 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70		)	Sandstone Mudstone, gray to dark gray, fine grained, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
75		)		AH	70.0 - 80.0	10.0			
78.0	393.9)							
80)	Shale Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
85)		AH	80.0 - 90.0	10.0			
90)							
95)	AH	90.0 - 100.0	10.0				
100)							

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Client Borehole ID <u>GS-AP-MW-14R</u>	Stantec Boring No. <u>GS-AP-MW-14R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,594.55 N; 2,063,763.70 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>471.94 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105 ▼			Shale Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110					AH	110.0 - 120.0	10.0		
115									
120	121.0	350.9							
123.0	348.9		Shale Mudstone, gray to dark gray, fine grained, interbedded, Potential waterbearing fracture at 122 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	120.0 - 130.0	10.0		
125			Mudstone Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	130.0 - 140.0	10.0		
130									
135					AH	130.0 - 140.0	10.0		
140									

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Client Borehole ID <u>GS-AP-MW-14R</u>	Stantec Boring No. <u>GS-AP-MW-14R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,594.55 N; 2,063,763.70 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>471.94 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145		()	Mudstone Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
150		()							
155		()			AH	150.0 - 160.0	10.0		
160		()							
165		()		AH	160.0 - 170.0	10.0			
170		()							
175		()		AH	170.0 - 180.0	10.0			


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Client Borehole ID <u>GS-AP-MW-14R</u>	Stantec Boring No. <u>GS-AP-MW-14R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,594.55 N; 2,063,763.70 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>471.94 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180			Mudstone Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
185				AH		180.0 - 190.0	10.0		
190									
193.0	278.9								
195	276.9		Shale Coal, black, soft, thick bedded, moist, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	190.0 - 200.0	10.0		
197.0	274.9		Sandstone Mudstone, gray to dark gray, fine grained, interbedded, fossiliferous, Heavily fractured. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
200									
202.0	269.9		Sandstone Mudstone, gray to dark gray, fine grained, interbedded, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
204.0	267.9								
205			Shale Coal, black, soft, thick bedded, moist, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	200.0 - 210.0	10.0		
210	261.9		Mudstone Sandstone, light gray to dark gray, fine grained to very fine grained, hard, interbedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3-5" to the final depth of 210.						
<p>No Refusal / Bottom of Hole at 210.0 Ft.</p> <p>Top of Rock = 11.5 Ft. Top of Rock Elevation = 460.4 Ft.</p>									

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Client Borehole ID	<u>GS-AP-MW-18R</u>	Stantec Boring No.	<u>GS-AP-MW-18R</u>		
Client	<u>Southern Company Services</u>	Boring Location	<u>1,314,928.60 N; 2,067,040.57 E</u>		
Project Number	<u>175520214</u>	Surface Elevation	<u>460.06 ft</u>	Elevation Datum	<u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>8/10/21</u>	Completed	<u>8/10/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>45.1 ft</u>	Date/Time	<u>11/8/21</u>
Inspector	<u>J. Massey</u>	Logger	<u>J. Massey</u>	Depth to Water	<u>43.3 ft</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>		
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>				
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop	<u>N/A</u>
Reviewed By	<u>B. Evans</u>	Efficiency	<u>N/A</u>		
		Approved By	<u>E. Smith</u>		

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	460.1	Top of Hole						
			Auger Without Sampling						
	3.0	457.1	 SANDY FAT CLAY, CH, 5YR 6/8 (reddish yellow) with 5YR 7/1 (light gray), very fine to fine, medium to high plasticity, soft to Plastic, moist, iron oxide staining, Lensed, Gray clay, gleying interbedded with brick red orange very fine sandy silty loam	RS	0.0 - 7.0	3.5	N/A		
	4.0	456.1							
5	7.0	453.1	GRAVELLY WELL GRADED SAND WITH CLAY, SW-SC, 5YR 3/2 (dark reddish brown) with 5Y 7/2 (light gray), medium, non to low plasticity, hard, moist, iron oxide staining, Olive gray with red orange med gr sandstone with lithics, heavy min grain oxides						
			Sandstone (85%) With Siltstone (15%)	RS	7.0 - 17.0	8.0	N/A		
10			Sandstone, dark brown orange and dark olive gray, fine grained to medium grained, interbedded to medium bedded, moderately weathered, crossbedded, lithic, 0° to 30° bedding angle, Iron banded brown orange sandstone grading to gray fine sandstone to siltstone, argillaceous						
15	17.0	443.1	Sandstone (60%) With Siltstone (40%)						
20			Sandstone, dark gray and dark olive gray, very fine grained to medium grained, interbedded to laminated, flaser, argillaceous, 0° to 15° bedding angle, Dark gray siltstone interbedded with olive gray f to med ss, cross stratified, lenticular bedding	RS	17.0 - 27.0	8.8	N/A		
25									
30									

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Client Borehole ID <u>GS-AP-MW-18R</u>	Stantec Boring No. <u>GS-AP-MW-18R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,928.60 N; 2,067,040.57 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>460.06 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone (60%) With Siltstone (40%)						
			Sandstone, dark gray and dark olive gray, very fine grained to medium grained, interbedded to laminated, flaser, argillaceous, 0° to 15° bedding angle, Dark gray siltstone interbedded with olive gray f to med ss, cross stratified, lenticular bedding <i>(Continued)</i>		RS	27.0 - 37.0	10.0	N/A	
35									
					RS	37.0 - 47.0	10.0	N/A	
40									
45	45.0	415.1	Sandstone (70%) With Siltstone (30%)						Likely fracture at 45 feet bgs
	47.0	413.1	Sandstone, dark gray and dark orange yellow, very fine grained to medium grained, interbedded, iron oxide staining, lithic, 15° to 45° bedding angle, Likely fracture zone						
50			Sandstone (70%) With Siltstone (30%)						
			Sandstone, dark gray with dark olive gray, very fine grained to medium grained, interbedded, lithic, 0° to 15° bedding angle, Dark gray siltstone interbedded with olive gray f to med ss, cross stratified, lenticular bedding, argillaceous		RS	47.0 - 57.0	9.8	N/A	
55									
	57.0	403.1							

No Refusal /
Bottom of Hole at 57.0 Ft.

Top of Rock = 7.0 Ft.
Top of Rock Elevation = 453.1 Ft.

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Client Borehole ID	<u>GS-AP-MW-18VR</u>	Stantec Boring No.	<u>GS-AP-MW-18VR</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,314,931.31 N; 2,067,022.14 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>459.92 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>8/7/21</u>	Completed <u>8/9/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>195.8 ft</u>	Date/Time <u>12/14/21</u>
Inspector	<u>J. Massey</u>	Logger	<u>J. Massey</u>	Depth to Water <u>N/A</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Efficiency	<u>N/A</u>	
		Approved By	<u>E. Smith</u>	

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	459.9							
	1.0	458.9							
	3.5	456.4	SANDY FAT CLAY, CH, 5YR 6/8 (reddish yellow) with 5YR 7/1 (light gray), very fine to fine, medium to high plasticity, soft to Plastic, moist, iron oxide staining, Lensed, Gray clay, gleying interbedded with brick red orange very fine sandy silty loam	RS		0.0 - 7.0	7.0	N/A	
5			GRAVELLY WELL GRADED SAND WITH CLAY, SW-SC, 5YR 3/2 (dark reddish brown) with 5Y 7/2 (light gray), medium, non to low plasticity, hard, moist, iron oxide staining, Top of partially weathered sandstone rock, olive gray color masks real rock, which is red orange med gr sandstone with lithics, heavy min grain oxides						
10	12.0	447.9	Sandstone (85%) With Siltstone (15%) Sandstone, dark brown orange and dark yellow gray, fine grained to medium grained, interbedded, slightly weathered, iron oxide staining, lithic, 15° to 45° bedding angle	RS		7.0 - 17.0	5.0	N/A	First 5 feet of core sample 2 was not recovered.
15	18.8	441.1	Sandstone (50%) With Mud-Rich Shale (50%) Sandstone, dark gray orange and dark olive gray, very fine grained to medium grained, interbedded, iron oxide staining, argillaceous, 15° to 45° bedding angle	RS		17.0 - 27.0	9.2	N/A	
20	24.4	435.5	Sandstone (70%) With Siltstone (30%) Sandstone, dark gray and dark olive gray, very fine grained to medium grained, interbedded, iron oxide staining, lithic, 15° to 45° bedding angle	RS		27.0 - 30.0	3.0	N/A	Mechanical break in core sample
25	30.0	429.9							

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Client Borehole ID <u>GS-AP-MW-18VR</u>	Stantec Boring No. <u>GS-AP-MW-18VR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,931.31 N; 2,067,022.14 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>459.92 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			<p>Sandstone (70%) With Siltstone (30%)</p> <p>Sandstone, dark gray with dark olive yellow, very fine grained to medium grained, interbedded, iron oxide staining, lithic, Bedding plane oxide mineralization in parts, argillaceous</p>						<p>Switch to 6-inch hammer, air rotary drilling</p> <p>Possible fracture at 49 feet bgs, water introduced into boring</p>
35					AH	30.0 - 40.0	10.0		
40									
45					AH	40.0 - 50.0	10.0		
50									
55					AH	50.0 - 60.0	10.0		
60									
65	65.0	394.9			AH	60.0 - 70.0	10.0		

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Client Borehole ID <u>GS-AP-MW-18VR</u>	Stantec Boring No. <u>GS-AP-MW-18VR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,931.31 N; 2,067,022.14 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>459.92 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70			Sandstone (70%) With Siltstone (30%) Sandstone, dark gray with dark olive gray, very fine grained to medium grained, interbedded, lithic, Cyclic sandstone and siltstone interbedding, argillaceous <i>(Continued)</i>						
75				AH	70.0 - 80.0	10.0			
80									
85				AH	80.0 - 90.0	10.0			
90									
95			AH	90.0 - 100.0	10.0				
100									

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-18VR</u>	Stantec Boring No. <u>GS-AP-MW-18VR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,931.31 N; 2,067,022.14 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>459.92 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
105			Sandstone (70%) With Siltstone (30%) Sandstone, dark gray with dark olive gray, very fine grained to medium grained, interbedded, lithic, Cyclic sandstone and siltstone interbedding, argillaceous <i>(Continued)</i>		AH	100.0 - 110.0	10.0			
110										
115						AH	110.0 - 120.0	10.0		
120										
125					AH	120.0 - 130.0	10.0			
130										
135					AH	130.0 - 140.0	10.0			
140										

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-18VR</u>	Stantec Boring No. <u>GS-AP-MW-18VR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,931.31 N; 2,067,022.14 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>459.92 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145			Sandstone (70%) With Siltstone (30%) Sandstone, dark gray with dark olive gray, very fine grained to medium grained, interbedded, lithic, Cyclic sandstone and siltstone interbedding, argillaceous <i>(Continued)</i>						
				AH		140.0 - 150.0	10.0		
150	150.0	309.9							
155			Sandstone (90%) With Siltstone (10%) Sandstone, dark gray with dark olive gray, fine grained to medium grained, interbedded, lithic, Gray olive f to med ss, argillaceous						Possible 2 ft fracture
				AH		150.0 - 160.0	10.0		
165	165.0	294.9							
170			Siltstone (60%) With Sandstone (40%) Siltstone, dark gray, very fine grained to fine grained, interbedded, lithic, Gray very fine argillaceous ss with gray siltstone and shaly clastic material						
				AH		160.0 - 170.0	10.0		
175									
175									
				AH		170.0 - 180.0	10.0		

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-18VR</u>	Stantec Boring No. <u>GS-AP-MW-18VR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,931.31 N; 2,067,022.14 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>459.92 ft</u> Elevation Datum <u>NAVD 88</u>

Depth Ft ²	Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
	Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180			Siltstone (60%) With Sandstone (40%)						ROP increase, no change in lithology
			Siltstone, dark gray, very fine grained to fine grained, interbedded, lithic, Gray very fine argillaceous ss with gray siltstone and shaly clastic material (Continued)						
185					AH	180.0 - 190.0	10.0		
									Rough drilling
190									
195					AH	190.0 - 200.0	10.0		
200	200.0	259.9							
			Sandstone (90%) With Siltstone (10%)						
			Sandstone, dark gray with dark olive gray, fine grained to medium grained, interbedded, lithic, Gray olive f to med ss, argillaceous						
205					AH	200.0 - 210.0	10.0		
	207.0	252.9							
			Coal (60%) With Sandstone (40%)						
			Coal, very dark gray black with dark gray olive, very fine grained to medium grained, interbedded, argillaceous, Black coal, vitreous, blocky. Gray very fine argillaceous ss with gray siltstone						First visual id of coal from 207 to 211, rop increase
210	211.0	248.9							
			Siltstone (60%) With Sandstone (40%)						
			Siltstone, dark gray with dark brown olive, very fine grained to fine grained, interbedded, lithic, Trace coal. Gray very fine argillaceous ss with gray siltstone and shaly clastic material		AH	210.0 - 220.0	10.0		
215									

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID	<u>GS-AP-MW-18VR</u>	Stantec Boring No.	<u>GS-AP-MW-18VR</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,314,931.31 N; 2,067,022.14 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>459.92 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology				Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
220	220.0	239.9	x x						

No Refusal /
Bottom of Hole at 220.0 Ft.

Top of Rock = 12.0 Ft.
Top of Rock Elevation = 447.9 Ft.

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-23V</u>		Stantec Boring No. <u>GS-AP-MW-23V</u>	
Client <u>Southern Company Services</u>		Boring Location <u>1,324,906.06 N; 2,063,770.86 E</u>	
Project Number <u>175520214</u>		Surface Elevation <u>303.40 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name <u>Gorgas Ash Pond Well Installation & Abandonment</u>		Date Started <u>9/24/21</u>	Completed <u>9/25/21</u>
Project Location <u>Walker Co, Parrish, Alabama</u>		Depth to Water <u>43.9 ft</u>	Date/Time <u>12/14/21</u>
Inspector <u>A. Stevens</u>	Logger <u>A. Stevens</u>	Depth to Water <u>N/A</u>	Date/Time <u>N/A</u>
Drilling Contractor <u>Cascade Drilling</u>		Drill Rig Type and ID <u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size) <u>4" X 6" Rotasonic / 6" Air Hammer</u>			
Sampler Hammer Type <u>N/A</u>	Weight <u>N/A</u>	Drop <u>N/A</u>	Efficiency <u>N/A</u>
Reviewed By <u>W. Padgett</u>		Approved By <u>E. Smith</u>	

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	303.4							
	1.0	302.4							
			Topsoil						
			SANDY SILT TRACE GRAVEL, CL, medium to high plasticity, soft to firm, dry, no staining, weak cementation	RS		0.0 - 7.0	5.0	N/A	
5	7.0	296.4							
			SILTY WELL GRADED SAND, SW, 2.5YR 4/6 (red) and 5YR 5/8 (yellowish red), fine, non-plastic, loose to medium dense, dry to moist, no odor, iron oxide staining, Stratified, weak cementation, well graded	RS		7.0 - 15.0	8.0	N/A	
10	11.5	291.9							
	14.0	289.4							
	15.0	288.4							
15			SILTY LEAN CLAY, CL, 5YR 4/6 (yellowish red) to 2.5Y 7/6 (yellow), low to medium plasticity, soft to firm, dry to moist, no odor, iron oxide staining, Lensed, Organic materials						
			Sandstone, medium grained, moderately hard, thick bedded, highly weathered, Micaceous (N5-N7)	RS		15.0 - 17.0	0.2	N/A	
			Sandstone, fine grained to medium grained, hard, thick bedded, slightly weathered, Micaceous (N5-N7)						
20									
	24.0	279.4							
25			Mudstone, very fine grained, soft, thin bedded, highly weathered, Small coal fragments found ~25 ft bgs						
30	30.0	273.4							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-23V</u>	Stantec Boring No. <u>GS-AP-MW-23V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,324,906.06 N; 2,063,770.86 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>303.40 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Mudstone (60%) With Sandstone (40%)						
			Mudstone, light gray to dark gray, very fine grained, soft to hard, highly weathered, moist, micaceous, Munsell colors N3 - N5.		RS	27.0 - 37.0	5.0	N/A	
35									
40	40.0	263.4	Sandstone (90%) With Mudstone (10%)						
			Sandstone, fine grained to medium grained, hard, thick bedded, slightly weathered, Micaceous (N5-N7)		RS	37.0 - 47.0	7.0	N/A	
45									
49.0	49.0	254.4	Mudstone (60%) With Sandstone (40%)						
			Mudstone, light gray to dark gray, very fine grained, soft to hard, slightly weathered, moist, micaceous, Munsell colors N3 - N5.		RS	47.0 - 57.0	10.0	N/A	
50									
55									
60									
65	66.5	236.9			RS	57.0 - 67.0	10.0	N/A	

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-23V</u>	Stantec Boring No. <u>GS-AP-MW-23V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,324,906.06 N; 2,063,770.86 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>303.40 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
68.0	235.4	⌋	Mudstone (80%) With Sandstone (20%)						
70		⌋	Mudstone, light gray to dark gray, very fine grained, soft to hard, slightly weathered, moist, micaceous, Munsell colors N3 - N5. <i>(Continued)</i>						
72.0	231.4	⌋	Mudstone, light gray to dark gray, very fine grained, soft to hard, weathered, moist, wavy, micaceous, 0° to 15° bedding angle, Munsell colors N3 - N5.	RS		67.0 - 77.0	10.0	N/A	
75		⌋	Mudstone (80%) With Sandstone (20%)						
		⌋	Mudstone, light gray to dark gray, very fine grained, soft to hard, slightly weathered, moist, micaceous, Munsell colors N3 - N5.						
77.9	225.5	⌋							
78.2	225.2	■	Coal, black, soft, moderately weathered						
80		●	Sandstone (70%) With Mudstone (30%)						
		●	Sandstone, fine grained to medium grained, hard, thick bedded, slightly weathered, Micaceous (N5-N7)	RS		77.0 - 87.0	10.0	N/A	
85		●							
87.0	216.4	●							

No Refusal /
 Bottom of Hole at 87.0 Ft.

Top of Rock = 14.0 Ft.
 Top of Rock Elevation = 289.4 Ft.

Client Borehole ID	<u>GS-AP-MW-27HR</u>	Stantec Boring No.	<u>GS-AP-MW-27HR</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>532.59 ft</u>
		Elevation Datum	<u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>6/22/21</u>
		Completed	<u>6/24/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>163.9 ft</u>
		Date/Time	<u>11/9/21</u>
Inspector	<u>W. Padgett</u>	Logger	<u>W. Padgett</u>
		Depth to Water	<u>163.1 ft</u>
		Date/Time	<u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>
		Drop	<u>N/A</u>
		Efficiency	<u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	532.6							
			Top of Hole						
			LEAN CLAY TRACE SAND, CL, 5YR 5/6 (yellowish red) to 10YR 8/3 (very pale brown), low plasticity, dry to moist		RS	0.0 - 7.0	7.0	N/A	
5									
	11.0	521.6							
			SILT WITH GRAVEL, ML, 10YR 6/4 (light yellowish brown) to 10YR 4/6 (dark yellowish brown), non to low plasticity, dry, Blocky, Fine to coarse gravel		RS	7.0 - 17.0	10.0	N/A	
15									
	15.0	517.6							
			Shale, gray to dark gray, very fine grained, soft to very soft, thin bedded, highly weathered, dry, Interbedded with clay lenses						
20									
	23.0	509.6							
			Mudstone, dark gray, very fine grained, moderately hard, thick bedded, slightly weathered, dry, iron oxide staining, 0° bedding angle		RS	17.0 - 27.0	10.0	N/A	
25									
	27.5	505.1							
			Sandstone, gray with pale red, fine grained, hard, thin to medium bedded, slightly weathered, dry to moist, iron oxide staining, 0° bedding angle		RS	27.0 - 30.0	3.0	N/A	
30									
	30.0	502.6							

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Client Borehole ID <u>GS-AP-MW-27HR</u>	Stantec Boring No. <u>GS-AP-MW-27HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30		(	Mudstone Shale, light gray to gray, very fine grained, soft to moderately hard, slightly weathered, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
35		(		AH	30.0 - 40.0	10.0			
40		(
45		(		AH	40.0 - 50.0	10.0			
50		(
55		(		AH	50.0 - 60.0	10.0			
60		(
65		(		AH	60.0 - 70.0	10.0			

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-27HR</u>	Stantec Boring No. <u>GS-AP-MW-27HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70			Mudstone Shale, light gray to gray, very fine grained, soft to moderately hard, slightly weathered, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
75	75.0	457.6		Sandstone, light gray, fine grained to medium grained, hard, freshly weathered, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	70.0 - 80.0	10.0	
85	85.0	447.6	Sandstone, gray, fine grained, hard, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	80.0 - 90.0	10.0		
95			Siltstone, gray to dark gray, very fine grained, moderately hard, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	90.0 - 100.0	10.0		
100	100.0	432.6							


STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID	<u>GS-AP-MW-27HR</u>	Stantec Boring No.	<u>GS-AP-MW-27HR</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		x x x	Siltstone, gray to dark gray, very fine grained, moderately hard, dry, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110		x x x							
115		x x x		AH	110.0 - 120.0	10.0			
120		x x x							
125	125.0	407.6		AH	120.0 - 130.0	10.0			
130		)		Mudstone Shale, dark gray, very fine grained, soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.				
135		)			AH	130.0 - 140.0	10.0	
140)							
)							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-27HR</u>	Stantec Boring No. <u>GS-AP-MW-27HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
<div style="display: flex; flex-direction: column;"> <div style="margin-bottom: 10px;">145</div> <div style="margin-bottom: 10px;">150</div> <div style="margin-bottom: 10px;">155</div> <div style="margin-bottom: 10px;">160</div> <div style="margin-bottom: 10px;">165</div> <div style="margin-bottom: 10px;">170</div> <div style="margin-bottom: 10px;">175</div> </div>			Mudstone Shale, dark gray, very fine grained, soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH AH AH AH	140.0 - 150.0 150.0 - 160.0 160.0 - 170.0 170.0 - 180.0	10.0 10.0 10.0 10.0		

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-27HR</u>	Stantec Boring No. <u>GS-AP-MW-27HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180		()	Mudstone Shale, dark gray, very fine grained, soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
185		()		AH	180.0 - 190.0	10.0			
190		()							
195		()		AH	190.0 - 200.0	10.0			
200		()							
205		()		AH	200.0 - 210.0	10.0			
210		()							
215		()		AH	210.0 - 220.0	10.0			

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-27HR</u>	Stantec Boring No. <u>GS-AP-MW-27HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
220			Mudstone Shale, dark gray, very fine grained, soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
225	225.0	307.6			AH	220.0 - 230.0	10.0		
230			Sandstone, gray, fine grained, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
235	235.0	297.6			AH	230.0 - 240.0	10.0		
240			Mudstone Shale, dark gray, very fine grained, soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
245					AH	240.0 - 250.0	10.0		
250									

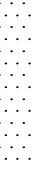


STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-27HR</u>	Stantec Boring No. <u>GS-AP-MW-27HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
255		Mudstone Shale, dark gray, very fine grained, soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	250.0 - 260.0	10.0		
260								
265					AH	260.0 - 270.0	10.0	
269.0	263.6							
270	271.0	261.6						
		Coal, black, soft, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
275		Shale, very fine grained, very soft to soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.		AH	270.0 - 280.0	10.0		
280								
285	285.0		247.6		AH	280.0 - 290.0	10.0	
290		Sandstone, gray, fine grained, hard, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						

STANTEC 1755 STD BC 1755 STD DATA R0.GDT 1/27/22












Client Borehole ID <u>GS-AP-MW-27HR</u>	Stantec Boring No. <u>GS-AP-MW-27HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,317,233.91 N; 2,063,501.93 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>532.59 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
295	295.0	237.6							
			Sandstone, gray, fine grained, hard, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>		AH	290.0 - 300.0	10.0		
									
300	300.0	232.6							
			Shale, very fine grained, very soft to soft, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						

No Refusal /
 Bottom of Hole at 300.0 Ft.

Top of Rock = 15.0 Ft.
 Top of Rock Elevation = 517.6 Ft.

Client Borehole ID	<u>GS-AP-MW-31V</u>	Stantec Boring No.	<u>GS-AP-MW-31V</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,321,049.87 N; 2,068,723.91 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>585.83 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>9/22/21</u>	Completed <u>9/23/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>228.5 ft</u>	Date/Time <u>11/7/21</u>
Inspector	<u>A. Stevens</u>	Logger	<u>A. Stevens</u>	Depth to Water
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop
Reviewed By	<u>W. Padgett</u>	Efficiency	<u>N/A</u>	
		Approved By	<u>E. Smith</u>	

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	585.8							
	0.5	585.3							
	3.5	582.3			RS	0.0 - 7.0	6.0	N/A	
5	7.0	578.8							
10	10.0	575.8			RS	7.0 - 17.0	10.0	N/A	
	13.0	572.8							
15	15.5	570.3							
	17.5	568.3							
	19.0	566.8							
20					RS	17.0 - 22.0	5.0	N/A	
	23.0	562.8							
	24.5	561.3			RS	22.0 - 27.0	4.5	N/A	
25									
					RS	27.0 - 30.0	3.0	N/A	
30	30.0	555.8							

STANTEC: 1755 STD: 175520214.GPJ BC: 1755 STD: DATA1.RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30		to very thin bedded, slightly weathered, dry, no odor, (N4-N7)						
35		Sandstone Mudstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.		AH	30.0 - 40.0	10.0		
40								
45				AH	40.0 - 50.0	10.0		
50								
54.0	531.8							
55	530.8	Sandstone Mudstone, light gray to dark gray, very fine grained, very hard to soft, slightly weathered, wet, Water producing fracture zone. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.		AH	50.0 - 60.0	10.0		
60		Sandstone Mudstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.						
65				AH	60.0 - 70.0	10.0		
67.0	518.8							

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
68.0	517.8	)	Sandstone Mudstone, light gray to dark gray, very fine grained, very hard to soft, highly weathered, wet, Water producing fracture zone. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. <i>(Continued)</i>						
70)							
75		)	Sandstone Mudstone, light gray to dark gray, very fine grained, very hard to soft, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.	AH		70.0 - 80.0	10.0		
80)							
82.0	503.8	)	Mudstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.						
85)							
86.0	499.8	)	Sandstone, light gray to gray, fine grained, very hard, wet to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N5.	AH		80.0 - 90.0	10.0		
90)							
93.0	492.8	)	Mudstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.						
95)							
100.0	485.8)	Sandstone, light gray to gray, fine grained, very hard, wet to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N5.	AH		90.0 - 100.0	10.0		
)							

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105			Sandstone, light gray to gray, fine grained, very hard, wet to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N5. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110									
115				AH	110.0 - 120.0	10.0			
120									
125					AH	120.0 - 130.0	10.0		
130	131.0	454.8							
135			Mudstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.		AH	130.0 - 140.0	10.0		
140									

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
145		Mudstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. <i>(Continued)</i>		AH	140.0 - 150.0	10.0			
150									
155					AH	150.0 - 160.0	10.0		
160									
165					AH	160.0 - 170.0	10.0		
170									
175				AH	170.0 - 180.0	10.0			
	177.0	408.8							
	178.0	407.8						Mudstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, moist to moist,	

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180		Fracture zone. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. Mudstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. <i>(Continued)</i>						
185			AH	180.0 - 190.0	10.0			
190								
195			AH	190.0 - 200.0	10.0			
200								
205		AH	200.0 - 210.0	10.0				
210								
215		AH	210.0 - 220.0	10.0				

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
220			Mudstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, dry to moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. <i>(Continued)</i>						
225					AH	220.0 - 230.0	10.0		
230	231.0	354.8							
235			Sandstone Mudstone, light gray to dark gray, very fine grained, soft, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5.						
240					AH	230.0 - 240.0	10.0		
245					AH	240.0 - 250.0	10.0		
250									

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. GS-AP-MW-31V
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
255		)	Sandstone Mudstone, light gray to dark gray, very fine grained, soft, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N5. <i>(Continued)</i>		AH	250.0 - 260.0	10.0		
260)							
265		)		AH	260.0 - 270.0	10.0			
270)							
275		)		AH	270.0 - 280.0	10.0			
279.0	306.8)							
280		)	Coal, black, soft, thick bedded, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. N1						
284.0	301.8)							
285)	Mudstone Sandstone, fine grained to very fine grained, hard, interbedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.		AH	280.0 - 290.0	10.0		
290)							

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
	292.0	293.8							
	294.0	291.8							
295			Coal Shale, very fine grained, soft, very thin bedded to thin, highly weathered, wet, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N1. Thin coal seam observed.		AH	290.0 - 300.0	10.0		
			Mudstone (90%) With Sandstone (10%)						
300			Mudstone, very fine grained, soft, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
	302.0	283.8							
			Sandstone (80%) With Mudstone (20%)						
305			Sandstone, light gray to dark gray, fine grained to very fine grained, hard, interbedded, slightly weathered, wet, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3-N5						
310									
	315.0	270.8			AH	310.0 - 320.0	10.0		
			Mudstone (80%) With Sandstone (20%)						
320			Mudstone, very fine grained, soft, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
	321.0	264.8							
			Mudstone Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1.		AH	320.0 - 330.0	10.0		
325									
	325.5	260.3							

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Client Borehole ID <u>GS-AP-MW-31V</u>	Stantec Boring No. <u>GS-AP-MW-31V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,321,049.87 N; 2,068,723.91 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>585.83 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
			Mudstone (80%) With Sandstone (20%)						
330			Mudstone, very fine grained, soft, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3. (Continued)						
335					AH	330.0 - 340.0	10.0		
340									
345					AH	340.0 - 350.0	10.0		
350									
355	355.0	230.8			AH	350.0 - 355.0	5.0		

No Refusal /
Bottom of Hole at 355.0 Ft.

Top of Rock = 19.0 Ft.
Top of Rock Elevation = 566.8 Ft.

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Client Borehole ID	<u>GS-AP-MW-36V</u>	Stantec Boring No.	<u>GS-AP-MW-36V</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,316,538.79 N; 2,063,638.24 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>534.07 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>8/18/21</u>	Completed <u>8/21/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>264.2 ft</u>	Date/Time <u>11/9/21</u>
Inspector	<u>W. Padgett</u>	Logger	<u>W. Padgett</u>	Depth to Water <u>261.5 ft</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u>
Reviewed By	<u>J. Massey</u>	Efficiency	<u>N/A</u>	
Approved By	<u>E. Smith</u>			

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	534.1							
			Top of Hole						
			SILTY WELL GRADED GRAVEL, GW-GM, 2.5Y 6/4 (light yellowish brown), fine to coarse, dry to moist, Lensed, In situ weathered bedrock gravel.		RS	0.0 - 7.0	7.0	N/A	
5									
					RS	7.0 - 17.0	3.5	N/A	
10									
	13.5	520.6							
			Sandstone, fine grained, moderately hard, thin bedded, highly weathered, iron oxide staining, Munsell colors 5YR 4/4 and 10YR 5/4. Fractures with Fe oxide staining at 18.5						
15									
	18.5	515.6							
			Sandstone Mudstone, fine grained to very fine grained, soft to moderately hard, thin to medium bedded, highly weathered, iron oxide staining, interbedded, Munsell colors N5 and 5YR 5/4. Fracture with Fe oxide staining at 22'		RS	17.0 - 27.0	9.0	N/A	
20									
	22.0	512.1							
			Shale Mudstone, very fine grained, soft to moderately hard, thin to medium bedded, highly weathered, Intermittent fossil material observed. Intermittent thin beds sandstone. Munsell colors N5 - N4.		RS	27.0 - 30.0	3.0	N/A	
25									
30									

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Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30)	Shale Mudstone, very fine grained, soft to moderately hard, thin to medium bedded, highly weathered, Intermittent fossil material observed. Intermittent thin beds sandstone. Munsell colors N5 - N4. <i>(Continued)</i>						
35)		AH	30.0 - 40.0	10.0			
40)							
45)		AH	40.0 - 50.0	10.0			
50)							
55)		AH	50.0 - 60.0	10.0			
60)							
65)		AH	60.0 - 70.0	10.0			

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Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70		)	Shale Mudstone, very fine grained, soft to moderately hard, thin to medium bedded, highly weathered, Intermittent fossil material observed. Intermittent thin beds sandstone. Munsell colors N5 - N4. <i>(Continued)</i>						
75	76.0	458.1)		AH	70.0 - 80.0	10.0	
80		.)	Sandstone, fine grained to medium grained, moderately hard to hard, thin to thick bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						
85		.)		AH	80.0 - 90.0	10.0			
90		.)		AH	90.0 - 100.0	10.0			
95		.)							
100		.)							

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Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		●●●●●	Sandstone, fine grained to medium grained, moderately hard to hard, thin to thick bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110		●●●●●							
115		●●●●●			AH	110.0 - 120.0	10.0		
117.0	417.1	●●●●●							
120		) ) ) ) )	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, interbedded, Fracture 136-137 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.						
125		) ) ) ) )			AH	120.0 - 130.0	10.0		
130)))))							
135		) ) ) ) )			AH	130.0 - 140.0	10.0		
140)))))							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145		)	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, interbedded, Fracture 136-137 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4. <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
	148.0 386.1)							
150		.)	Mudstone Sandstone, very fine grained to fine grained, soft to moderately hard, thin to medium bedded, slightly weathered, iron oxide staining, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.		AH	150.0 - 160.0	10.0		
155		.)							
160		.)							
165		.)	Shale Mudstone, very fine grained, soft, thin to very thin bedded, slightly weathered to moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3.		AH	160.0 - 170.0	10.0		
170)							
175)			AH	170.0 - 180.0	10.0		








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Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180)	Shale Mudstone, very fine grained, soft, thin to very thin bedded, slightly weathered to moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3. <i>(Continued)</i>						
185		)		AH	180.0 - 190.0	10.0		
190)							
195		)		AH	190.0 - 200.0	10.0		
200)							
205		)		AH	200.0 - 210.0	10.0		
210)							
215		)		AH	210.0 - 220.0	10.0		

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
220		 <p>Shale Mudstone, very fine grained, soft, thin to very thin bedded, slightly weathered to moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3. <i>(Continued)</i></p>						
225	225.0 309.1	 <p>Shale Sandstone, fine grained to very fine grained, soft to hard, very thin to thin, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.</p>		AH	220.0 - 230.0	10.0		
230	231.0 303.1	 <p>Sandstone, fine grained, hard, thin bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4..</p>						
235	233.0 301.1	 <p>Mudstone Shale, fine grained to very fine grained, very thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Occasional thin beds of sandstone throughout interval. Munsell color N3.</p>		AH	230.0 - 240.0	10.0		
240								
245				AH	240.0 - 250.0	10.0		
250								


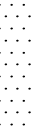
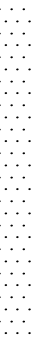


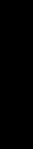

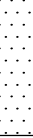
STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
255		)	Mudstone Shale, fine grained to very fine grained, very thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Occasional thin beds of sandstone throughout interval. Munsell color N3. <i>(Continued)</i>		AH	250.0 - 260.0	10.0		
260)							
265)							
270	270.0	264.1							
274.0	260.1	.)		Shale Sandstone, fine grained to very fine grained, hard to soft, thin to thin bedded, slightly weathered, graded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Shale at bottom of interval. Munsell colors N3 - N4.		AH	260.0 - 270.0	10.0	
275		.)	Coal, soft, freshly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1. Pratt coal seam.		AH	270.0 - 280.0	10.0		
277.5	256.6	.)							
280		.)	Sandstone, medium grained, hard, thin to medium bedded, freshly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4.						
285	285.0	249.1							
288.0	246.1	)	Mudstone Sandstone, fine grained to very fine grained, moderately hard to soft, slightly weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.		AH	280.0 - 290.0	10.0		
290)							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. <u>GS-AP-MW-36V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
291.5	242.6		Coal Shale, very fine grained, soft to very soft, very thin to medium bedded, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1 - N3. Nickel Plate <i>(Continued)</i>		AH	290.0 - 300.0	10.0		
295.0	239.1								
305.0	229.1		Mudstone Sandstone, fine grained to very fine grained, moderately hard to soft, slightly weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						
313.0	221.1		Sandstone, medium grained, hard, thin to medium bedded, freshly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4.						
317.0	217.1		Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3.						
319.0	215.1		Coal, soft, freshly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1. American coal seam.						
325.0	209.1		Shale, very fine grained, soft, very thin bedded to medium bedded, moderately weathered, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
			Sandstone, medium grained, hard, thin to medium bedded, freshly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4.						
No Refusal / Bottom of Hole at 325.0 Ft.									

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-36V</u>	Stantec Boring No. GS-AP-MW-36V
Client <u>Southern Company Services</u>	Boring Location <u>1,316,538.79 N; 2,063,638.24 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>534.07 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
			Top of Rock = 13.5 Ft. Top of Rock Elevation = 520.6 Ft.						

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Client Borehole ID	<u>GS-AP-MW-37HR</u>	Stantec Boring No.	<u>GS-AP-MW-37HR</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,319,191.68 N; 2,062,611.50 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>457.42 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>7/24/21</u>	Completed <u>7/28/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>145.8 ft</u>	Date/Time <u>8/13/21</u>
Inspector	<u>J. Massey</u> Logger <u>J. Massey</u>	Depth to Water	<u>143.1 ft</u>	Date/Time <u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u> Efficiency <u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Approved By	<u>E. Smith</u>	

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	457.4						
	0.4	457.0						
	3.3	454.1						
5								
10								
	12.0	445.4						
15								
	21.0	436.4						
20								
	23.5	433.9						
25								
	28.5	428.9						
30								

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Client Borehole ID <u>GS-AP-MW-37HR</u>	Stantec Boring No. <u>GS-AP-MW-37HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,191.68 N; 2,062,611.50 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>457.42 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone (85%) With Siltstone (15%) Sandstone, light gray to dark olive gray, fine grained to medium grained, thin bedded to thick bedded, moderately weathered, interbedded, lithic, Competent rock, Pottsville formation, very clayey at contact <i>(Continued)</i>						
35									
40	40.0	417.4	Sandstone (80%) With Siltstone (20%) Sandstone, light gray to dark olive gray, fine grained to medium grained, thin bedded to thick bedded, interbedded, lithic, Pottsville Formation- Gray fine grained to silty sandstone, argillaceous						Switch to 6-inch air hammer drilling
45				AH	40.0 - 50.0	10.0			
50									
55				AH	50.0 - 60.0	10.0			
60									
65				AH	60.0 - 70.0	10.0			

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-37HR</u>	Stantec Boring No. <u>GS-AP-MW-37HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,191.68 N; 2,062,611.50 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>457.42 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70			Sandstone (80%) With Siltstone (20%) Sandstone, light gray to dark olive gray, fine grained to medium grained, thin bedded to thick bedded, interbedded, lithic, Pottsville Formation- Gray fine grained to silty sandstone, argillaceous <i>(Continued)</i>						
75				AH	70.0 - 80.0	10.0			
80									
85				AH	80.0 - 90.0	10.0			
90									
95			AH	90.0 - 100.0	10.0				
100									

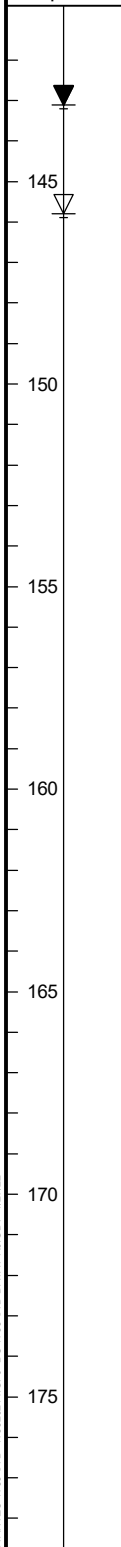
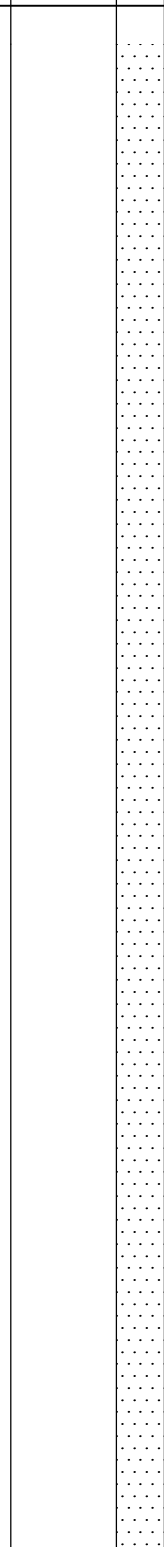
STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-37HR</u>	Stantec Boring No. <u>GS-AP-MW-37HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,191.68 N; 2,062,611.50 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>457.42 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105			Sandstone (80%) With Siltstone (20%) Sandstone, light gray to dark olive gray, fine grained to medium grained, thin bedded to thick bedded, interbedded, lithic, Pottsville Formation- Gray fine grained to silty sandstone, argillaceous <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110									
115					AH	110.0 - 120.0	10.0		
120									
125				AH	120.0 - 130.0	10.0			
130									
135				AH	130.0 - 140.0	10.0			
140									

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Client Borehole ID <u>GS-AP-MW-37HR</u>	Stantec Boring No. <u>GS-AP-MW-37HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,191.68 N; 2,062,611.50 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>457.42 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
		 <p>Sandstone (80%) With Siltstone (20%)</p> <p>Sandstone, light gray to dark olive gray, fine grained to medium grained, thin bedded to thick bedded, interbedded, lithic, Pottsville Formation- Gray fine grained to silty sandstone, argillaceous <i>(Continued)</i></p>		AH	140.0 - 150.0	10.0		
				AH	150.0 - 160.0	10.0		
				AH	160.0 - 170.0	10.0		
				AH	170.0 - 180.0	10.0		

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-37HR</u>	Stantec Boring No. <u>GS-AP-MW-37HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,191.68 N; 2,062,611.50 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>457.42 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180			Sandstone (80%) With Siltstone (20%) Sandstone, light gray to dark olive gray, fine grained to medium grained, thin bedded to thick bedded, interbedded, lithic, Pottsville Formation- Gray fine grained to silty sandstone, argillaceous <i>(Continued)</i>						
185				AH		180.0 - 190.0	10.0		
190	190.0	267.4	Sandstone (90%) With Siltstone (10%) Sandstone, light gray to dark olive gray, fine grained to coarse grained, thin bedded, interbedded, lithic, Pottsville formation, coarser sandstone, argillaceous						
195				AH		190.0 - 200.0	10.0		
200			Coal (65%) With Siltstone (35%) Coal, very dark black gray with light gray olive, hydrocarbon staining, carbonaceous, Vitreous, blocky						Approximate top of Pratt Coal
205	206.0	251.4		AH		200.0 - 210.0	10.0		
210			Sandstone (90%) With Siltstone (10%) Sandstone, light gray to dark olive gray, fine grained to coarse grained, thin bedded, interbedded, lithic, Argillaceous med sandstone, chlorite and muscovite						
215	215.0	242.4		AH		210.0 - 220.0	10.0		Approximate top of Nickel Plate seam

STANTEC 1755 STD 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-37HR</u>	Stantec Boring No. <u>GS-AP-MW-37HR</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,319,191.68 N; 2,062,611.50 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>457.42 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
		Coal (50%) With Siltstone (50%)						
218.0	239.4	Coal, very dark black gray with light gray olive, hydrocarbon staining, carbonaceous, Nickel Plate <i>(Continued)</i>						
220		Sandstone (70%) With Siltstone (30%)						
		Sandstone, light gray to dark olive gray, fine grained to medium grained, thin bedded, interbedded, lithic, Argillaceous		AH	220.0 - 230.0	10.0		
225								
230								
235	235.0	Coal (80%) With Siltstone (20%)		AH	230.0 - 240.0	10.0		Approximate top of American Coal
	222.4	Coal, very dark black gray with light gray olive, hydrocarbon staining, carbonaceous, Vitreous, blocky						
240	240.0	Sandstone (90%) With Siltstone (10%)						
	217.4	Sandstone, light gray to dark olive gray, fine grained to coarse grained, thin bedded, interbedded, lithic, Argillaceous med sandstone, chlorite and muscovite		AH	240.0 - 250.0	10.0		
245								
250	250.0	No Refusal / Bottom of Hole at 250.0 Ft.						
	207.4	Top of Rock = 28.5 Ft.						

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-37HR</u>	Stantec Boring No. GS-AP-MW-37HR
Client <u>Southern Company Services</u>	Boring Location <u>1,319,191.68 N; 2,062,611.50 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>457.42 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
Top of Rock Elevation = 428.9 Ft.									



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Client Borehole ID	<u>GS-AP-MW-45H</u>	Stantec Boring No.	<u>GS-AP-MW-45H</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>Not Surveyed</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>NS</u> Elevation Datum <u>NS</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>8/23/21</u> Completed <u>8/24/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>N/A</u> Date/Time <u>N/A</u>
Inspector	<u>W. Padgett</u> Logger <u>W. Padgett</u>	Depth to Water	<u>N/A</u> Date/Time <u>N/A</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u> Weight <u>N/A</u> Drop <u>N/A</u> Efficiency <u>N/A</u>		
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0							
		Top of Hole						
		LEAN CLAY SOME GRAVEL, CL, 7.5YR 5/6 (strong brown), low plasticity, firm, moist, Fill material, [FILL]		RS	0.0 - 7.0	7.0	N/A	
5	5.5							
		SANDY SILT WITH GRAVEL, ML, 7.5YR 4/6 (strong brown), low plasticity, firm, moist, Lensed, Lenses of in situ weathered bedrock gravel						
10								
	12.5			RS	7.0 - 17.0	10.0	N/A	
		SANDY SILT WITH GRAVEL, ML, 10YR 4/6 (dark yellowish brown), fine to coarse, non to low plasticity, Blocky, In situ weathered bedrock gravel						
15	15.8							
		SILTY WELL GRADED GRAVEL, GW-GM, 10YR 4/6 (dark yellowish brown), fine to coarse, moist, In situ weathered bedrock gravel		RS	17.0 - 21.0	4.0	N/A	
20	19.0							
		Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1.		RS	21.0 - 27.0	6.0	N/A	
25								
				RS	27.0 - 30.0	3.0	N/A	
30								




STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-45H</u>	Stantec Boring No. <u>GS-AP-MW-45H</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30		 <p>Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1. <i>(Continued)</i></p>						
34.0								
35		 <p>Mudstone Sandstone, fine grained to very fine grained, moderately hard, thin to medium bedded, moderately weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.</p>		AH	30.0 - 40.0	10.0		
40								
45				AH	40.0 - 50.0	10.0		
50								
55				AH	50.0 - 60.0	10.0		
60								
65				AH	60.0 - 70.0	10.0		






STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-45H</u>	Stantec Boring No. <u>GS-AP-MW-45H</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
70									
			Mudstone Sandstone, fine grained to very fine grained, moderately hard, thin to medium bedded, moderately weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>						
75				AH	70.0 - 80.0	10.0			
80									
85	85.0			AH	80.0 - 90.0	10.0			
90									
			Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. Intermittent thin beds of very fine grained sandstone observed.						
95					AH	90.0 - 100.0	10.0		
100									
	103.0								
									

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Client Borehole ID <u>GS-AP-MW-45H</u>	Stantec Boring No. <u>GS-AP-MW-45H</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105	106.0	 <p>Sandstone, fine grained, moderately hard to hard, thin bedded, slightly weathered, dry, lenticular, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i></p>		AH	100.0 - 110.0	10.0		
110		 <p>Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. Intermittent thin beds of very fine grained sandstone observed.</p>		AH	110.0 - 120.0	10.0		
125				AH	120.0 - 130.0	10.0		
135				AH	130.0 - 140.0	10.0		
140								

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Client Borehole ID <u>GS-AP-MW-45H</u>	Stantec Boring No. <u>GS-AP-MW-45H</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
145		(Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. Intermittent thin beds of very fine grained sandstone observed. <i>(Continued)</i>		AH	140.0 - 150.0	10.0			
150		(
155		(AH	150.0 - 160.0	10.0		
160		(
165		(AH	160.0 - 170.0	10.0			
170		(
175		(AH	170.0 - 180.0	10.0			

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Client Borehole ID <u>GS-AP-MW-45H</u>	Stantec Boring No. <u>GS-AP-MW-45H</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180		)	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. Intermittent thin beds of very fine grained sandstone observed. <i>(Continued)</i>						
185		)		AH	180.0 - 190.0	10.0			
190)							
195		)		AH	190.0 - 200.0	10.0			
200)							
205)							
210)							
212.0)							
215)	Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1. Air circulation was lost below 213 feet bgs.						
216.0)		AH	210.0 - 216.0	6.0			

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Client Borehole ID <u>GS-AP-MW-45H</u>	Stantec Boring No. GS-AP-MW-45H
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
			No Refusal / Bottom of Hole at 216.0 Ft. Top of Rock = 19.0 Ft.						

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Client Borehole ID	<u>GS-AP-MW-45HA</u>	Stantec Boring No.	<u>GS-AP-MW-45HA</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>Not Surveyed</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>NS</u>	Elevation Datum <u>NS</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>9/8/21</u>	Completed <u>9/9/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>N/A</u>	Date/Time <u>N/A</u>
Inspector	<u>M. Padgett</u>	Logger	<u>M. Padgett</u>	Depth to Water <u>N/A</u> Date/Time <u>N/A</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u> Efficiency <u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Approved By	<u>E. Smith</u>	

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	Top of Hole						
		LEAN CLAY SOME GRAVEL, CL, 7.5YR 5/6 (strong brown), low plasticity, firm, moist, Fill material, [FILL]		RS	0.0 - 7.0	7.0	N/A	
5	7.0	SANDY SILT WITH GRAVEL, ML, 7.5YR 4/6 (strong brown), low plasticity, firm, moist, Lensed, Lenses of in situ weathered bedrock gravel						
10	11.5	SANDY SILT WITH GRAVEL, ML, 10YR 4/6 (dark yellowish brown), fine to coarse, non to low plasticity, Blocky, In situ weathered bedrock gravel		RS	7.0 - 17.0	10.0	N/A	
15	17.0	SILTY WELL GRADED GRAVEL, GW-GM, 10YR 4/6 (dark yellowish brown), fine to coarse, moist, In situ weathered bedrock gravel		RS	17.0 - 21.0	4.0	N/A	
20	21.0	Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1.		RS	21.0 - 27.0	5.5	N/A	
25				RS	27.0 - 30.0	3.0	N/A	
30								

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Client Borehole ID <u>GS-AP-MW-45HA</u>	Stantec Boring No. <u>GS-AP-MW-45HA</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1. <i>(Continued)</i>						
35	36.0			AH	30.0 - 40.0	10.0			
40			Mudstone Sandstone, fine grained to very fine grained, moderately hard, thin to medium bedded, moderately weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						
45				AH	40.0 - 50.0	10.0			
50	52.0		Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						
55				AH	50.0 - 60.0	10.0			
60									
65				AH	60.0 - 70.0	10.0			

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Client Borehole ID <u>GS-AP-MW-45HA</u>	Stantec Boring No. <u>GS-AP-MW-45HA</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
70		)	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>						
75		)		AH	70.0 - 80.0	10.0			
80)								
85		)		AH	80.0 - 90.0	10.0			
90)								
95		)		AH	90.0 - 100.0	10.0			
98.0)								
100		.)		Mudstone Sandstone, fine grained to very fine grained, moderately hard, thin to medium bedded, moderately weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						

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Client Borehole ID <u>GS-AP-MW-45HA</u>	Stantec Boring No. <u>GS-AP-MW-45HA</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105	105.0	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.		AH	100.0 - 110.0	10.0		
110				AH	110.0 - 120.0	10.0		
115				AH	120.0 - 130.0	10.0		
120				AH	130.0 - 140.0	10.0		
125								
130								
135								
140								

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Client Borehole ID <u>GS-AP-MW-45HA</u>	Stantec Boring No. <u>GS-AP-MW-45HA</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145		()	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
150		()							
155		()			AH	150.0 - 160.0	10.0		
160		()							
165		()		AH	160.0 - 170.0	10.0			
170		()							
175		()		AH	170.0 - 180.0	10.0			

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Client Borehole ID <u>GS-AP-MW-45HA</u>	Stantec Boring No. <u>GS-AP-MW-45HA</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180		)	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>						
185		)		AH	180.0 - 190.0	10.0			
190)							
195)		AH	190.0 - 200.0	10.0			
200)							
205)		AH	200.0 - 210.0	10.0			
210)							
215	215.0)		AH	210.0 - 218.0	8.0			
				Void					

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Client Borehole ID <u>GS-AP-MW-45HA</u>	Stantec Boring No. GS-AP-MW-45HA
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
218.0			Void <i>(Continued)</i>						

No Refusal /
 Bottom of Hole at 218.0 Ft.

 Top of Rock = 21.0 Ft.

Client Borehole ID	<u>GS-AP-MW-45V</u>	Stantec Boring No.	<u>GS-AP-MW-45V</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>548.02 ft</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Elevation Datum	<u>NAVD 88</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Date Started	<u>8/22/21</u>
Inspector	<u>W. Padgett</u>	Logger	<u>W. Padgett</u>
Drilling Contractor	<u>Cascade Drilling</u>	Depth to Water	<u>201.7 ft</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>
Drop	<u>N/A</u>	Efficiency	<u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	548.0	Top of Hole						
			LEAN CLAY SOME GRAVEL, CL, 7.5YR 5/6 (strong brown), low plasticity, firm, moist, Fill material, [FILL]		RS	0.0 - 7.0	7.0	N/A	
7.3	540.8		SANDY SILT WITH GRAVEL, ML, 7.5YR 4/6 (strong brown), low plasticity, firm, moist, Lensed, Lenses of in situ weathered bedrock gravel						
11.0	537.0		SANDY SILT WITH GRAVEL, ML, 10YR 4/6 (dark yellowish brown), fine to coarse, non to low plasticity, Blocky, In situ weathered bedrock gravel		RS	7.0 - 17.0	10.0	N/A	
15.0	533.0		SILTY WELL GRADED GRAVEL, GW-GM, 10YR 4/6 (dark yellowish brown), fine to coarse, moist, In situ weathered bedrock gravel						
21.0	527.0		Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1.		RS	17.0 - 24.0	7.0	N/A	
					RS	24.0 - 27.0	3.0	N/A	
					RS	27.0 - 30.0	3.0	N/A	

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Client Borehole ID <u>GS-AP-MW-45V</u>	Stantec Boring No. <u>GS-AP-MW-45V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>548.02 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1. <i>(Continued)</i>						
35	36.0	512.0		AH	30.0 - 40.0	10.0			
40			Mudstone Sandstone, fine grained to very fine grained, moderately hard, thin to medium bedded, moderately weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						
45				AH	40.0 - 50.0	10.0			
50	48.0	500.0	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						
55				AH	50.0 - 60.0	10.0			
60									
65				AH	60.0 - 70.0	10.0			


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Client Borehole ID <u>GS-AP-MW-45V</u>	Stantec Boring No. <u>GS-AP-MW-45V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>548.02 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
70)	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>							
75)		AH	70.0 - 80.0	10.0				
80)								
85)		AH	80.0 - 90.0	10.0				
90)								
95)		AH	90.0 - 100.0	10.0				
100)								
	102.0	446.0								
		.)								

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Client Borehole ID <u>GS-AP-MW-45V</u>	Stantec Boring No. <u>GS-AP-MW-45V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>548.02 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105	105.0	443.0	 <p>Sandstone, fine grained, moderately hard to hard, dry, lenticular, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4. <i>(Continued)</i></p>	AH	100.0 - 110.0	10.0			
110			<p>Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.</p>						
115				AH	110.0 - 120.0	10.0			
120									
125				AH	120.0 - 130.0	10.0			
130									
135				AH	130.0 - 140.0	10.0			
140									

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Client Borehole ID <u>GS-AP-MW-45V</u>	Stantec Boring No. <u>GS-AP-MW-45V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>548.02 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145		()	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
150		()							
155		()			AH	150.0 - 160.0	10.0		
160		()							
165		()		AH	160.0 - 170.0	10.0			
170		()							
175		()		AH	170.0 - 180.0	10.0			

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Client Borehole ID <u>GS-AP-MW-45V</u>	Stantec Boring No. <u>GS-AP-MW-45V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>548.02 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks	
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %		
180		)	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, dry, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4. <i>(Continued)</i>						
185		)		AH		180.0 - 190.0		10.0	
190)								
195		)		AH		190.0 - 200.0		10.0	
200)								
205		)		AH		200.0 - 210.0		10.0	
210)								
213.0	335.0)								
215				Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1.		AH	210.0 - 220.0		10.0	

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Client Borehole ID <u>GS-AP-MW-45V</u>	Stantec Boring No. <u>GS-AP-MW-45V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>548.02 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
217.0	331.0							
220.0	328.0	Shale Sandstone, fine grained to very fine grained, moderately hard to soft, very thin bedded to thin, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.						
223.0	325.0	Sandstone, fine grained, hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4.	AH		220.0 - 230.0	10.0		
224.0	324.0							
228.0	320.0	Shale, very fine grained, soft, very thin bedded, moderately weathered, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
233.0	315.0	Coal Shale, very fine grained, soft, very thin bedded to thin, highly weathered, interbedded and fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N1. Thin coal seam observed..						
236.0	312.0	Mudstone Shale, very fine grained, soft to moderately hard, very thin bedded to medium bedded, slightly weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.	AH		230.0 - 240.0	10.0		
240.0		Sandstone, fine grained, hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.						
245.0		Shale, very fine grained, soft, very thin bedded, moderately weathered, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.	AH		240.0 - 250.0	10.0		
251.5	296.5							

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Client Borehole ID <u>GS-AP-MW-45V</u>	Stantec Boring No. <u>GS-AP-MW-45V</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,323,716.51 N; 2,068,639.25 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>548.02 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
255	255.5 292.5	Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1. <i>(Continued)</i>		AH	250.0 - 260.0	10.0		
	257.0 291.0	Shale, very fine grained, soft, very thin bedded, moderately weathered, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
260		Sandstone, fine grained to medium grained, hard, thin to medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.		AH	260.0 - 265.0	5.0		
265	265.0 283.0							

No Refusal /
Bottom of Hole at 265.0 Ft.

Top of Rock = 21.0 Ft.
Top of Rock Elevation = 527.0 Ft.

Client Borehole ID	<u>GS-AP-MW-46</u>	Stantec Boring No.	<u>GS-AP-MW-46</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,320,304.25 N; 2,066,944.53 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>488.34 ft</u>
		Elevation Datum	<u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>10/6/21</u>
		Completed	<u>10/10/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>127.6 ft</u>
		Date/Time	<u>11/9/21</u>
Inspector	<u>W. Padgett / E. Smith</u>	Logger	<u>W. Padgett / E. Smith</u>
		Depth to Water	<u>128.3 ft</u>
		Date/Time	<u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>
		Drop	<u>N/A</u>
		Efficiency	<u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	488.3						
	1.0	487.3						
	3.0	485.3						
				RS	0.0 - 6.5	6.5	N/A	
5								
				RS	6.5 - 16.5	10.0	N/A	
10								
	14.0	474.3						
15								
	18.5	469.8						
20				RS	16.5 - 22.5	6.0	N/A	
	22.5	465.8						
25				RS	22.5 - 26.5	1.5	N/A	
	27.0	461.3						
30								

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Client Borehole ID <u>GS-AP-MW-46</u>	Stantec Boring No. <u>GS-AP-MW-46</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,304.25 N; 2,066,944.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.34 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			Sandstone, medium grained, hard, thin to thick bedded, dry to moist, Tight high angle fracture at 41 feet <i>(Continued)</i>		RS	26.5 - 36.5	9.0	N/A	
35									
37.5	450.8		Mudstone Sandstone, very fine grained, moderately hard to soft, thin to medium bedded, moderately weathered, dry to moist, N3 Dark Gray to N6 Medium Light Gray		RS	36.5 - 40.0	3.5	N/A	
40	448.3								
			Siltstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, thin, dry, Samples collected from air-hammer outflow.		AH	40.0 - 50.0	10.0		
45									
50									
55					AH	50.0 - 60.0	10.0		
60									
65					AH	60.0 - 70.0	10.0		

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Client Borehole ID <u>GS-AP-MW-46</u>	Stantec Boring No. GS-AP-MW-46
Client <u>Southern Company Services</u>	Boring Location <u>1,320,304.25 N; 2,066,944.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.34 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70			Siltstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, thin, dry, Samples collected from air-hammer outflow. <i>(Continued)</i>						
75				AH	70.0 - 80.0	10.0			
80									
85				AH	80.0 - 90.0	10.0			
90									
95			AH	90.0 - 100.0	10.0				
100									

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Client Borehole ID <u>GS-AP-MW-46</u>	Stantec Boring No. <u>GS-AP-MW-46</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,304.25 N; 2,066,944.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.34 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105			Siltstone Sandstone, light gray to dark gray, very fine grained, very hard to soft, thin, dry, Samples collected from air-hammer outflow. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110									
115					AH	110.0 - 120.0	10.0		
120	120.0	368.3	Mudstone Sandstone, light gray to dark gray, very fine grained, hard, very thin bedded to medium bedded, dry, Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Munsell colors N3 -N5.						
125					AH	120.0 - 130.0	10.0		
130									
135					AH	130.0 - 140.0	10.0		
140									

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Client Borehole ID <u>GS-AP-MW-46</u>	Stantec Boring No. <u>GS-AP-MW-46</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,304.25 N; 2,066,944.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.34 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145			Mudstone Sandstone, light gray to dark gray, very fine grained, hard, very thin bedded to medium bedded, dry, Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Munsell colors N3 -N5. <i>(Continued)</i>		AH	140.0 - 150.0	10.0		
150									
155					AH	150.0 - 160.0	10.0		
160									
165				AH	160.0 - 170.0	10.0			
170									
175				AH	170.0 - 180.0	10.0			

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Client Borehole ID <u>GS-AP-MW-46</u>	Stantec Boring No. <u>GS-AP-MW-46</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,320,304.25 N; 2,066,944.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.34 ft</u> Elevation Datum <u>NAVD 88</u>


Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180			Mudstone Sandstone, light gray to dark gray, very fine grained, hard, very thin bedded to medium bedded, dry, Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Munsell colors N3 -N5. <i>(Continued)</i>						
185				AH		180.0 - 190.0		10.0	
190									
195									
196.0	292.3								
200			Coal, black, soft, medium bedded, moist to wet, Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Sulfurous odor. Pratt Coal seam.						
200.0	288.3								
205			Sandstone, light gray to dark gray, very fine grained to fine grained, hard, thin to medium bedded, Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Munsell colors N4.						
209.0	279.3			AH		200.0 - 210.0		10.0	
210			Shale Coal, light gray to dark gray, very fine grained, soft, very thin bedded to thin, moist to wet, Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Nickel Plate Coal seam.						
212.5	275.8								
215			Shale, dark gray to light gray, very fine grained, soft, fossiliferous. Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Munsell color						
215.0	273.3			AH		210.0 - 218.0		10.0	

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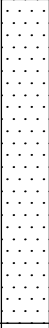

Client Borehole ID <u>GS-AP-MW-46</u>	Stantec Boring No. GS-AP-MW-46
Client <u>Southern Company Services</u>	Boring Location <u>1,320,304.25 N; 2,066,944.53 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>488.34 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	

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218.0	270.3		<p>N3.</p> <p>Mudstone Sandstone, light gray to dark gray, fine grained to very fine grained, hard, thin to medium bedded, Lithology logged based on rock chips collected from air-hammer outflow and drill head advancement. Depths are estimates. Munsell colors N4. <i>(Continued)</i></p> <p>No Refusal / Bottom of Hole at 218.0 Ft.</p> <p>Top of Rock = 22.5 Ft. Top of Rock Elevation = 465.8 Ft.</p>						
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Client Borehole ID	<u>GS-AP-MW-47</u>	Stantec Boring No.	<u>GS-AP-MW-47</u>
Client	<u>Southern Company Services</u>	Boring Location	<u>1,318,564.00 N; 2,063,754.57 E</u>
Project Number	<u>175520214</u>	Surface Elevation	<u>472.16 ft</u>
		Elevation Datum	<u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>10/25/21</u>
		Completed	<u>10/27/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>121.5 ft</u>
		Date/Time	<u>11/7/21</u>
Inspector	<u>A. Stevens</u>	Logger	<u>A. Stevens</u>
		Depth to Water	<u>121.8 ft</u>
		Date/Time	<u>12/14/21</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>		
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>
		Drop	<u>N/A</u>
		Efficiency	<u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Approved By	<u>E. Smith</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	472.2							
			Top of Hole						
	2.5	469.7							
			LEAN CLAY SOME SAND, CL, 5YR 5/3 (reddish brown), low to medium plasticity, firm, dry, [FILL]						
	5.0	467.2			RS	0.0 - 6.0	6.0	N/A	
			SANDY SILT, ML, 5YR 4/6 (yellowish red) and 7.5YR 5/6 (strong brown), low plasticity, firm, dry to moist, [FILL]						
	12.0	460.2			RS	6.0 - 12.0	5.0	N/A	
			WELL GRADED GRAVEL WITH SILT, GW-GM, 7.5YR 5/4 (brown) to 10YR 5/4 (yellowish brown), fine to coarse, dense, dry, Lensed, Gravel consists of lenses of in situ weathered rock						
	20.0	452.2			RS	12.0 - 16.0	4.0	N/A	
			Sandstone, light gray and pale orange, medium grained, hard, moderately weathered, iron oxide staining, High angle fracture 18.5 - 19.5						
	30.0	442.2			RS	26.0 - 30.0	4.0	N/A	
			Sandstone Mudstone, light gray to dark gray, fine grained to very fine grained, moderately hard to soft, thin to medium bedded, moderately weathered, interbedded and bioturbated						

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Client Borehole ID <u>GS-AP-MW-47</u>	Stantec Boring No. <u>GS-AP-MW-47</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,564.00 N; 2,063,754.57 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>472.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30		(Sandstone Mudstone, gray to dark gray, fine grained, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations.						
		(
35		(AH	30.0 - 40.0	10.0		
		(
		(
40		(
		(
		(
45		(AH	40.0 - 50.0	10.0		
		(
		(
50		(
		(
		(
55		(AH	50.0 - 60.0	10.0			
		(
		(
60		(
		(
		(
65		(AH	60.0 - 70.0	10.0			

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Client Borehole ID <u>GS-AP-MW-47</u>	Stantec Boring No. <u>GS-AP-MW-47</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,564.00 N; 2,063,754.57 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>472.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70			Sandstone Mudstone, gray to dark gray, fine grained, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. <i>(Continued)</i>						
74.0	398.2								
75			Shale Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N5		AH	70.0 - 80.0	10.0		
85					AH	80.0 - 90.0	10.0		
95					AH	90.0 - 100.0	10.0		
100									

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Client Borehole ID <u>GS-AP-MW-47</u>	Stantec Boring No. <u>GS-AP-MW-47</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,564.00 N; 2,063,754.57 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>472.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		)	Shale Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N5 <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110)							
115		)		AH	110.0 - 120.0	10.0			
120	120.0	352.2	Sandstone Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N5						
125		)		AH	120.0 - 130.0	10.0			
130)							
135		)		AH	130.0 - 140.0	10.0			
140)							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-47</u>	Stantec Boring No. <u>GS-AP-MW-47</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,564.00 N; 2,063,754.57 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>472.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
145		)	Sandstone Mudstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N5 (Continued)		AH	140.0 - 150.0	10.0		
150)							
155		)			AH	150.0 - 160.0	10.0		
160)							
165		)		AH	160.0 - 170.0	10.0			
170)							
175		)		AH	170.0 - 180.0	10.0			
178.0	294.2)							
		: : : :							

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-47</u>	Stantec Boring No. <u>GS-AP-MW-47</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,564.00 N; 2,063,754.57 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>472.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
180			Mudstone Sandstone, gray to dark gray, fine grained, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3-N5 (Continued)						
185				AH		180.0 - 190.0	10.0		
190									
195									
196.0	276.2								
199.0	273.2		Shale Coal, black, soft, thick bedded, moist, fossiliferous, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N1						
200			Mudstone Sandstone, fine grained to very fine grained, hard, interbedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.						
205				AH		200.0 - 210.0	10.0		
206.0	266.2								
208.0	264.2		Coal Shale, very fine grained, soft to very soft, very thin to medium bedded, moderately weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1 - N3. Nickel Plate						
210			Mudstone Sandstone, light gray to dark gray, fine grained to very fine grained, hard, interbedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3-5						
215				AH		210.0 - 220.0	10.0		

STANTEC 1755 STD 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-MW-47</u>	Stantec Boring No. <u>GS-AP-MW-47</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,318,564.00 N; 2,063,754.57 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>472.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
220			Mudstone Sandstone, light gray to dark gray, fine grained to very fine grained, hard, interbedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3-5 <i>(Continued)</i>						
225				AH		220.0 - 230.0	10.0		
230									
233.0	239.2								
235			Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1.						
235.5	236.7			AH		230.0 - 242.0	12.0		
240			Sandstone Mudstone, gray, very fine grained, soft, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3.						
242.0	230.2								

No Refusal /
Bottom of Hole at 242.0 Ft.

Top of Rock = 12.0 Ft.
Top of Rock Elevation = 460.2 Ft.

Client Borehole ID	<u>GS-AP-PZ-18R</u>	Stantec Boring No.	<u>GS-AP-PZ-18R</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>1,314,925.44 N; 2,067,060.19 E</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>460.16 ft</u>	Elevation Datum <u>NAVD 88</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>8/17/21</u>	Completed <u>8/17/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>96.3 ft</u>	Date/Time <u>11/6/21</u>
Inspector	<u>W. Padgett</u>	Logger	<u>W. Padgett</u>	Depth to Water <u>96.1 ft</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u>
Reviewed By	<u>J. Massey</u>	Efficiency	<u>N/A</u>	
Approved By	<u>E. Smith</u>			

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0	460.2							
			Top of Hole						
			LEAN CLAY WITH GRAVEL, CL, 7.5YR 6/6 (reddish yellow) to 7.5YR 4/6 (strong brown), low plasticity, wet, In situ weathered fine to coarse gravel		RS	0.0 - 7.0	7.0	N/A	
4.8	455.4								
			GRAVELLY SILT, ML, 7.5YR 5/8 (strong brown) to 10YR 5/8 (yellowish brown), non to low plasticity, moist, iron oxide staining, Lensed, In situ weathered fine to coarse gravel						
9.0	451.2								
			SILTY WELL GRADED GRAVEL, GW-GM, fine to coarse, moist, iron oxide staining, Lensed, In situ weathered bedrock. Partial core loss due to high degree of weathering.		RS	7.0 - 17.0	5.0	N/A	
12.0	448.2								
			Sandstone, pale red and light gray, fine grained, soft to moderately hard, medium bedded to thick bedded, moderately weathered to highly weathered, iron oxide staining						
18.5	441.7								
			Mudstone, very fine grained, moderately hard, thin to medium bedded, moderately weathered, Intermittent fossils observed. Munsell color: N3		RS	17.0 - 27.0	10.0	N/A	
23.8	436.4								
			Sandstone Mudstone, very fine grained to fine grained, soft to moderately hard, thin to medium bedded, moderately weathered, interbedded, Thin sand stone interbeds. Horizontal fracture observed at 28 feet with Fe oxide staining. Munsell colors N3 to N5						
28.0	432.2								
			Sandstone, light gray to gray, fine grained, moderately hard, slightly weathered, Munsell color		RS	27.0 - 30.0	3.0	N/A	
30.0	430.2								








STANTEC 1755 20214.GPJ BC 1755 STD.DATAT.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-PZ-18R</u>	Stantec Boring No. <u>GS-AP-PZ-18R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,925.44 N; 2,067,060.19 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>460.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30			N6 Shale Mudstone, very fine grained, soft, very thin to medium bedded, moderately weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N4.5						
35					AH	30.0 - 40.0	10.0		
40									
45	45.0	415.2			AH	40.0 - 50.0	10.0		
50			Mudstone Sandstone, very fine grained to fine grained, soft to moderately hard, thin to medium bedded, moderately weathered, iron oxide staining, Fractures with Fe oxide staining observed 47-48 feet and 53-54 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors 5YR 5/6, N5 to N3						
55					AH	50.0 - 60.0	10.0		
60									
65				AH	60.0 - 70.0	10.0			

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.R0.GDT 1/27/22

Client Borehole ID <u>GS-AP-PZ-18R</u>	Stantec Boring No. <u>GS-AP-PZ-18R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,925.44 N; 2,067,060.19 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>460.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70	70.0	390.2							
75					AH	70.0 - 80.0	10.0		Shale Mudstone, very fine grained, soft to moderately hard, thin to medium bedded, moderately weathered, interbedded, Intermittent thin sand stone beds observed. Water bearing fracture from 106-107 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3.
80									
85					AH	80.0 - 90.0	10.0		
90									
95					AH	90.0 - 100.0	10.0		
100									

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT RD.GDT 1/27/22

Client Borehole ID <u>GS-AP-PZ-18R</u>	Stantec Boring No. <u>GS-AP-PZ-18R</u>
Client <u>Southern Company Services</u>	Boring Location <u>1,314,925.44 N; 2,067,060.19 E</u>
Project Number <u>175520214</u>	Surface Elevation <u>460.16 ft</u> Elevation Datum <u>NAVD 88</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105		)	Shale Mudstone, very fine grained, soft to moderately hard, thin to medium bedded, moderately weathered, interbedded, Intermittent thin sand stone beds observed. Water bearing fracture from 106-107 feet. Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell color N3. <i>(Continued)</i>		AH	100.0 - 110.0	10.0		
110)							
115		)			AH	110.0 - 120.0	10.0		
120	120.0	340.2							

No Refusal /
Bottom of Hole at 120.0 Ft.

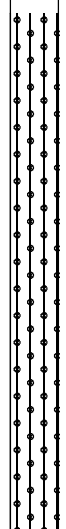
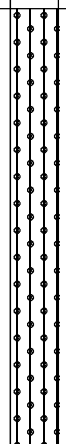
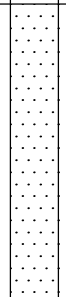
Top of Rock = 12.0 Ft.
Top of Rock Elevation = 448.2 Ft.

Client Borehole ID	<u>GS-GSA-PZ-23</u>	Stantec Boring No.	<u>GS-GSA-PZ-23</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>Not Surveyed</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>NS</u>	Elevation Datum <u>NS</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>10/19/21</u>	Completed <u>10/20/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>N/A</u>	Date/Time <u>N/A</u>
Inspector	<u>A. Stevens</u>	Logger	<u>A. Stevens</u>	Depth to Water <u>N/A</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u>
			<u>N/A</u>	Efficiency <u>N/A</u>
Reviewed By	<u>J. Massey</u>	Approved By	<u>E. Smith</u>	

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0							
	0.9							
		SILTY FAT CLAY, 7.5YR 6/8 (reddish yellow), fine, medium to high plasticity, hard, dry, no odor, weak cementation						
		SILTY WELL GRADED SAND TRACE GRAVEL, SW, 7.5YR 6/8 (reddish yellow) to 10YR 6/4 (light yellowish brown), fine to medium, loose, dry, Blocky, weak cementation, well graded, Gravels, angular weak saprolitic micaous mudstone						
	8.5							
	9.0							
	9.6							
10		SILT TRACE GRAVEL, MH, 10YR 5/6 (yellowish brown), medium to high plasticity, firm, dry, no odor, no staining, moderate cementation						
	12.8							
		SILT TRACE GRAVEL, MH, 10YR 6/4 (light yellowish brown) to 7.5YR 4/6 (strong brown), medium to high plasticity, firm, dry to moist, no odor, no staining, moderate cementation						
15	16.0							
		SANDY SILT TRACE GRAVEL, MH, 7.5YR 6/8 (reddish yellow) to 10YR 6/4 (light yellowish brown), fine to medium, dry, Blocky, weak cementation, well graded, Gravels, angular weak saprolitic micaous mudstone						
20	20.1							
	21.4							
		CLAYEY WELL GRADED GRAVEL WITH SAND, GM, very fine to coarse, dense, dry to moist, iron oxide staining, Stratified, moderate cementation, poorly graded, Gravel, moderately to highly weathered interbedded sandstone and mudstone						
25								
		SILTY FAT CLAY TRACE GRAVEL, CH, 10YR 6/4 (light yellowish brown), fine, medium to high plasticity, soft, wet, no odor, weak cementation, Mudstone saprolitic fragments						
		FAT CLAY TRACE GRAVEL, CH, 10YR 6/4 (light yellowish brown), fine, medium to high plasticity, soft, dry, no odor, weak cementation, Mudstone saprolitic fragments						
30								

STANTEC 1755 STD 1/27/22

Client Borehole ID <u>GS-GSA-PZ-23</u>	Stantec Boring No. <u>GS-GSA-PZ-23</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30		 <p>CLAYEY WELL GRADED GRAVEL SOME SAND, GM, 10YR 7/2 (light gray) to 10YR 6/8 (brownish yellow), very fine to coarse, dense, dry to moist, iron oxide staining, Stratified, moderate cementation, poorly graded, Gravel, moderately to highly weathered interbedded sandstone and mudstone <i>(Continued)</i></p>						
35								
40								
43.0								
		Resistant Saprolitic Sandstone						
44.5		 <p>CLAYEY WELL GRADED GRAVEL SOME SAND, GM, 10YR 7/2 (light gray) to 10YR 6/8 (brownish yellow), very fine to coarse, dense, dry to moist, iron oxide staining, Stratified, moderate cementation, poorly graded, Gravel, moderately to highly weathered interbedded sandstone and mudstone</p>						
45								
50								
55		Void						
55.5		 <p>Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1.</p>						
59.5								
60								
65								

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT R0.GDT 1/27/22

Client Borehole ID <u>GS-GSA-PZ-23</u>	Stantec Boring No. <u>GS-GSA-PZ-23</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
70	70.0	Sandstone, medium grained, hard, thick bedded, slightly weathered, Munsell color 5Y 6/1. <i>(Continued)</i>						
75		Sandstone (90%) With Mudstone (10%) Sandstone, fine grained to very fine grained, moderately hard, thin to medium bedded, moderately weathered, interbedded, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N4-N6.		AH	70.0 - 80.0	10.0		
85				AH	80.0 - 90.0	10.0		
90	88.0	Mudstone (60%) With Sandstone (40%) Mudstone, light gray to dark gray, very fine grained, very hard to soft, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N6.		AH	90.0 - 100.0	10.0		
95	97.0	Coal (60%) With Mudstone (40%) Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1.						
100	99.0	Coal, black, soft, thick bedded, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are						
	104.0							

STANTEC 1755 STD BC 1755 STD DATA R0.GDT 1/27/22

Client Borehole ID <u>GS-GSA-PZ-23</u>	Stantec Boring No. <u>GS-GSA-PZ-23</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
105			estimations. N1 Coal (60%) With Mudstone (40%)		AH	100.0 - 110.0	10.0		
107.0		)	Coal, soft, medium bedded, slightly weathered, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N1. <i>(Continued)</i>						
110	110.0)							

Mudstone, gray to dark gray, very fine grained, very hard to soft, moist, Lithology logged based on cuttings collected from air hammer outflow and drill head advancement. Depths are estimations. Munsell colors N3 - N4.

No Refusal /
Bottom of Hole at 110.0 Ft.





Top of Rock = 55.5 Ft.

Client Borehole ID	<u>GS-GSA-PZ-24</u>	Stantec Boring No.	<u>GS-GSA-PZ-24</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>Not Surveyed</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>NS</u>	Elevation Datum <u>NS</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>10/23/21</u>	Completed <u>10/23/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>N/A</u>	Date/Time <u>N/A</u>
Inspector	<u>A. Stevens</u>	Logger	<u>A. Stevens</u>	Depth to Water <u>N/A</u> Date/Time <u>N/A</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotasonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u> Efficiency <u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Approved By	<u>E. Smith</u>	

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0							
		Top of Hole						
	2.0	CLAYEY WELL GRADED SAND TRACE GRAVEL, SP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), very fine to coarse, loose to dense, dry, no odor, no staining, Stratified, weak cementation, well graded		RS	0.0 - 6.0	6.0	N/A	
5		CLAYEY WELL GRADED SAND WITH GRAVEL, SP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), fine to coarse, loose, dry, no odor, no staining, Laminated, well graded, Highly weathered in situ sandstone clasts						
10				RS	6.0 - 16.0	10.0	N/A	
15	15.5	WELL GRADED GRAVEL WITH CLAY WITH SAND, GP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), fine to coarse, loose, dry, no odor, iron oxide staining, Laminated, well graded, Highly weathered in situ interbedded layers of mudstone and sandstone clasts						
20		WELL GRADED GRAVEL WITH GRAVEL, GW, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), very fine to coarse, moist, no odor, no staining, moderate cementation, well graded, Highly to moderately weathered mudstone gravel clasts.		RS	16.0 - 26.0	10.0	N/A	
25	26.0	WELL GRADED GRAVEL WITH CLAY WITH SAND, GP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), fine to coarse, loose, dry, no odor, Laminated, well graded, Highly weathered in situ interbedded layers of mudstone and sandstone clasts						
30		WELL GRADED GRAVEL WITH CLAY, GW, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), very fine to coarse, moist, no odor, no staining, moderate cementation, well graded, Highly to moderately weathered mudstone gravel clasts.		RS	26.0 - 31.0	5.0	N/A	

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT.R0.GDT 1/27/22

Client Borehole ID <u>GS-GSA-PZ-24</u>	Stantec Boring No. <u>GS-GSA-PZ-24</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30	31.0		WELL GRADED GRAVEL WITH CLAY WITH SAND, GP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), fine to coarse, loose, dry, no odor, Laminated, well graded, Highly weathered in situ interbedded layers of mudstone and sandstone clasts		RS	31.0 - 35.0	6.0	N/A	
35	35.0			Mudstone (80%) With Sandstone (20%) Mudstone, light gray to dark olive gray, fine grained to medium grained, moderately hard to hard, thin bedded to thick bedded, moderately weathered to highly weathered, dry, no odor, interbedded, 0° to 15° bedding angle		RS	35.0 - 46.0	9.0	N/A
45	46.0		CLAYEY WELL GRADED GRAVEL, GP, Fill from inbetween 6" and 7"		RS	46.0 - 51.0	1.5	N/A	
50	51.0								

No Refusal /
Bottom of Hole at 51.0 Ft.

Top of Rock = 35.0 Ft.

Client Borehole ID	<u>GS-GSA-PZ-25</u>	Stantec Boring No.	<u>GS-GSA-PZ-25</u>	
Client	<u>Southern Company Services</u>	Boring Location	<u>Not Surveyed</u>	
Project Number	<u>175520214</u>	Surface Elevation	<u>NS</u>	Elevation Datum <u>NS</u>
Project Name	<u>Gorgas Ash Pond Well Installation & Abandonment</u>	Date Started	<u>10/21/21</u>	Completed <u>10/22/21</u>
Project Location	<u>Walker Co, Parrish, Alabama</u>	Depth to Water	<u>N/A</u>	Date/Time <u>N/A</u>
Inspector	<u>A. Stevens</u>	Logger	<u>A. Stevens</u>	Depth to Water <u>N/A</u>
Drilling Contractor	<u>Cascade Drilling</u>	Drill Rig Type and ID	<u>PS-150 Sonic Rig</u>	
Overburden Drilling and Sampling Tools (Type and Size)	<u>4" X 6" Rotosonic / 6" Air Hammer</u>			
Sampler Hammer Type	<u>N/A</u>	Weight	<u>N/A</u>	Drop <u>N/A</u>
Reviewed By	<u>W. Padgett</u>	Efficiency	<u>N/A</u>	
Approved By	<u>E. Smith</u>			

Lithology		Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation		Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
0	0.0							
	0.5							
	2.8							
		SANDY ORGANIC CLAY, OL/OH, 10YR 3/3 (dark brown) to 10YR 5/4 (yellowish brown), Plastic, moist, no odor, no staining, weak cementation						
		CLAYEY WELL GRADED SAND TRACE GRAVEL, SP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), very fine to coarse, loose to dense, dry, no odor, no staining, Stratified, weak cementation, well graded		RS	0.0 - 6.0	6.0	N/A	
		CLAYEY WELL GRADED SAND WITH GRAVEL, SP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), fine to coarse, loose, dry, no odor, no staining, Laminated, well graded, Highly weathered in situ sandstone clasts		RS	6.0 - 13.0	7.0	N/A	
		WELL GRADED GRAVEL WITH CLAY WITH SAND, GP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), fine to coarse, loose, dry, no odor, iron oxide staining, Laminated, well graded, Highly weathered in situ interbedded layers of mudstone and sandstone clasts		RS	13.0 - 16.0	3.0	N/A	
		FAT CLAY SOME GRAVEL, CH, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), very fine to coarse, medium to high plasticity, firm, moist, no odor, no staining, weak cementation, well graded						
		WELL GRADED GRAVEL WITH CLAY WITH SAND, GP, 7.5YR 3/2 (dark brown), fine to coarse, loose, dry, no odor, iron oxide staining, Laminated, well graded, Highly weathered in situ mudstone clasts		RS	16.0 - 26.0	10.0	N/A	
		FAT CLAY SOME GRAVEL, CH, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), very fine to coarse, medium to high plasticity, firm, moist, no odor, no staining, weak cementation, well graded						
		WELL GRADED GRAVEL WITH CLAY WITH SAND, GP, 7.5YR 4/3 (brown) to 10YR 7/4 (very pale brown), fine to coarse, loose, dry, no odor, iron oxide staining, Laminated, well graded, Highly weathered in situ interbedded layers of mudstone and sandstone clasts						

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATA1.RD.GDT 1/27/22

Client Borehole ID <u>GS-GSA-PZ-25</u>	Stantec Boring No. <u>GS-GSA-PZ-25</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation	Description	Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	
30		FAT CLAY TRACE GRAVEL, CH, 10YR 6/4 (light yellowish brown) to 5GY 5/1 (greenish gray), fine, medium to high plasticity, soft, dry, no odor, weak cementation, Highly weathered mudstone fragments Sandstone (70%) With Mudstone (30%)		RS	26.0 - 36.0	10.0	N/A	
35	36.0	Sandstone, light gray to dark olive gray, fine grained to medium grained, moderately hard to hard, thin bedded to thick bedded, moderately weathered, dry, no odor, interbedded, lithic, Competent rock (Continued)						
		Mudstone (80%) With Sandstone (20%)						
40		Mudstone, light gray to dark olive gray, fine grained to medium grained, moderately hard to hard, thin bedded to thick bedded, moderately weathered to highly weathered, dry, no odor, iron oxide staining, interbedded, 0° to 15° bedding angle, Iron straining found from 36.5-37.0 and 44.5		RS	36.0 - 46.0	8.5	N/A	
45								
50	51.0	Coal, black, soft, thick bedded, moist, 0° to 15° bedding angle, Loss of material from 53-56, potential coal seam from 51-56 fee. N1		RS	46.0 - 56.0	7.0	N/A	
55	55.0	Mudstone (80%) With Sandstone (20%)						
		Mudstone, light gray to dark olive gray, fine grained to medium grained, moderately hard to hard, thin bedded to thick bedded, moderately weathered to highly weathered, dry to moist, no odor, iron oxide staining, interbedded, 0° to 15° bedding angle, Iron straining found 64 ft		RS	56.0 - 66.0	8.0	N/A	
65	66.0							
No Refusal /								

STANTEC 1755 STD 175520214.GPJ BC 1755 STD DATAT.R0.GDT 1/27/22

Client Borehole ID <u>GS-GSA-PZ-25</u>	Stantec Boring No. <u>GS-GSA-PZ-25</u>
Client <u>Southern Company Services</u>	Boring Location <u>Not Surveyed</u>
Project Number <u>175520214</u>	Surface Elevation <u>NS</u> Elevation Datum <u>NS</u>

Lithology			Description	Overburden:	Sample ¹	Depth Ft ²	Rec. Ft	Blows/PSI	Remarks
Depth Ft ²	Elevation			Rock Core:	RQD %	Run Ft	Rec. Ft	Rec. %	

Bottom of Hole at 66.0 Ft.

Top of Rock = 29.5 Ft.

ATTACHMENT E

Monitoring Well Installation Logs



Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>10/5/2021</u>	Date Completed: <u>11/3/2021</u>
Borehole/Well No: <u>GS-AP-MW-01R</u>	Northing (ft): <u>1320298.45</u>	Easting (ft): <u>2066970.17</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6290955</u>	Longitude: <u>-87.1765004</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>488.24</u>	Stickup (ft, ags): <u>3.1</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>255.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>241.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>491.37</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>177.69</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up 3.1	Stick up: 3.1 ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): 2" ID PVC
	Outer casing	Casing Top: 3.1 ft, ags Bottom: 231.0 ft, bgs
	Bottom of Grout 224.4 Top of Bentonite	Screen Type: PVC U-Pack Type II
	2" inch casing	Screen Slot Size: 0.010
	Bottom of Bentonite 288.2 Top of Filter Pack	Screen Top: 231.0 ft, bgs Bottom: 241.0 ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: 241.0 ft, bgs Bottom: 241.4 ft, bgs
	Top of Screen 231.0	Grout Quantity: 315 gallons
	0.010 Slot screen	Grout Type: Baroid Aqua Guard 30% Solids Grout
		Grout Top: 0.0 ft, bgs Bottom: 224.4 ft, bgs
		Density Initial: 10.0 lbs/gal Return: 10.0 lbs/gal
		Bentonite Type: Pel Plug 3/8" PDS TR30 pellets
		Bentonite Seal Top: 224.4 ft, bgs Bottom: 228.2 ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): Southern Product & Silica Co. Filter Sand and Gravel #1
		Filter Pack: Top: 228.2 ft, bgs Bottom: 245.2 ft, bgs
	Bottom of screen 241.0	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) 245.2	Backfill below sand pack: Bentonite 255.0 - 245.2
	241.4 Sump/end cap	
	245.2 Base of filter pack	
	Terminus of borehole 255.0	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>9/13/2021</u>	Date Completed: <u>9/14/2021</u>
Borehole/Well No: <u>GS-AP-MW-03V</u>	Northing (ft): <u>1323698.58</u>	Easting (ft): <u>2067326.36</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6384366</u>	Longitude: <u>-87.1752952</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>510.28</u>	Stickup (ft, ags): <u>3.1</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>219.8</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>215.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>513.40</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>151.46</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett/Carolyn Sexton</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
— — —	Stick up <u>3.1</u>	Stick up: <u>3.1</u> ft, ags
Ground surface - 0.0'	4" Inch Diameter Protective Cover with Locking Lid Outer casing	Casing Type (steel or PVC, schedule 40 or 80): <u>PVC</u>
	Bottom of Grout <u>198.4</u> Top of Bentonite	Casing Top: <u>3.1</u> ft, ags Bottom: <u>205.0</u> ft, bgs
	Bottom of Bentonite <u>202.6</u> Top of Filter Pack	Screen Type: <u>PVC U-Pack Type II</u>
	Top of Screen <u>205.0</u>	Screen Slot Size: <u>0.010</u>
	2" inch casing 16/40 mesh Filter pack	Screen Top: <u>205.0</u> ft, bgs Bottom: <u>215.0</u> ft, bgs
	0.010 Slot screen	Sump/end cap Top: <u>215.0</u> ft, bgs Bottom: <u>215.4</u> ft, bgs
		Grout Quantity: <u>270</u> gallons
		Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
		Grout Top: <u>0.5</u> ft, bgs Bottom: <u>198.4</u> ft, bgs
		Density Initial: <u>10.1</u> lbs/gal Return: <u>10.1</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>198.4</u> ft, bgs Bottom: <u>202.6</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>202.6</u> ft, bgs Bottom: <u>219.8</u> ft, bgs
	Bottom of screen <u>215.0</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) <u>219.8</u>	
	Terminus of borehole	Sand filter pack used as backfill material

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>7/22/2021</u>	Date Completed: <u>8/8/2021</u>
Borehole/Well No: <u>GS-AP-MW-05R</u>	Northing (ft): <u>1324768.77</u>	Easting (ft): <u>2065423.21</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6413939</u>	Longitude: <u>-87.1815373</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>485.98</u>	Stickup (ft, ags): <u>2.6</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>185.4</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>175.0</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>488.59</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>143.68</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Josh Massey</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.6</u>	Stick up: <u>2.6</u> ft, ags
—	Ground surface - 0.0'	Casing Type (steel or PVC, schedule 40 or 80): <u>PVC</u>
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Top: <u>2.6</u> ft, ags Bottom: <u>174.6</u> ft, bgs
	Outer casing	Screen Type: <u>PVC U-Pack Type II</u>
	Bottom of Grout <u>157.7</u> Top of Bentonite	Screen Slot Size: <u>0.010</u>
	2" inch casing	Screen Top: <u>164.6</u> ft, bgs Bottom: <u>174.6</u> ft, bgs
	Bottom of Bentonite <u>161.8</u> Top of Filter Pack	Sump/end cap Top: <u>174.6</u> ft, bgs Bottom: <u>175.0</u> ft, bgs
	16/40 mesh Filter pack	Grout Quantity: <u>280</u> gallons
	Top of Screen <u>164.6</u>	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
	0.010 Slot screen	Grout Top: <u>2.0</u> ft, bgs Bottom: <u>157.7</u> ft, bgs
		Density Initial: <u>NA</u> lbs/gal Return: <u>NA</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>157.7</u> ft, bgs Bottom: <u>161.8</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>161.8</u> ft, bgs Bottom: <u>176.8</u> ft, bgs
	Bottom of screen <u>174.6</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) <u>176.8</u>	
	175.0 Sump/end cap	
	176.8 Base of filter pack	
	Terminus of borehole <u>185.0</u>	Baroid Hole Plug bentonite chips used as backfill material from 185.0 ft bgs to 176.8 ft bgs

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>7/22/2021</u>	Date Completed: <u>8/8/2021</u>
Borehole/Well No: <u>GS-AP-MW-09R</u>	Northing (ft): <u>1322413.65</u>	Easting (ft): <u>2062685.53</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6349445</u>	Longitude: <u>-87.1905556</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>418.47</u>	Stickup (ft, ags): <u>2.7</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>140.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>96.0</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>412.20</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>60.34</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Josh Massey</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.7</u>	Stick up: <u>2.7</u> ft, ags
—	Ground surface - 0.0'	Casing Type (steel or PVC, schedule 40 or 80): <u>PVC</u>
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Top: <u>2.7</u> ft, ags Bottom: <u>96.0</u> ft, bgs
	Outer casing	Screen Type: <u>PVC U-Pack Type II</u>
	Bottom of Grout <u>79.5</u> Top of Bentonite	Screen Slot Size: <u>0.010</u>
	2" inch casing	Screen Top: <u>85.6</u> ft, bgs Bottom: <u>95.6</u> ft, bgs
	Bottom of Bentonite <u>83.1</u> Top of Filter Pack	Sump/end cap Top: <u>95.6</u> ft, bgs Bottom: <u>96.0</u> ft, bgs
	16/40 mesh Filter pack	Grout Quantity: <u>120</u> gallons
	Top of Screen <u>85.6</u>	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
	0.010 Slot screen	Grout Top: <u>2.0</u> ft, bgs Bottom: <u>79.5</u> ft, bgs
		Density Initial: <u>10.0</u> lbs/gal Return: <u>10.0</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>79.5</u> ft, bgs Bottom: <u>83.1</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>83.1</u> ft, bgs Bottom: <u>99.0</u> ft, bgs
	Bottom of screen <u>95.6</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) <u>99.0</u>	
	96.0 Sump/end cap	
	99.0 Base of filter pack	
	Terminus of borehole <u>140.0</u>	Baroid Hole Plug bentonite chips used as backfill material from 140.0 ft bgs to 99.0 ft bgs, sand filter pack material used from 99.0 ft bgs to 96.0 ft bgs.

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>7/21/2021</u>	Date Completed: <u>7/27/2021</u>
Borehole/Well No: <u>GS-AP-MW-10R</u>	Northing (ft): <u>1321137.39</u>	Easting (ft): <u>2062567.40</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6314381</u>	Longitude: <u>-87.1909562</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>449.88</u>	Stickup (ft, ags): <u>2.9</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>220.1</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>208.0</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>452.79</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>143.69</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
— — —	Stick up 2.9	Stick up: <u>2.9</u> ft, ags
	Ground surface - 0.0'	
	4" Inch Diameter Protective Cover with Locking Lid	
	Outer casing	Casing Type (steel or PVC, schedule 40 or 80): <u>PVC</u>
		Casing Top: <u>2.9</u> ft, ags Bottom: <u>197.6</u> ft, bgs
	Bottom of Grout Top of Bentonite 191.3	Screen Type: <u>PVC U-Pack Type II</u>
		Screen Slot Size: <u>0.010</u>
	2" inch casing	Screen Top: <u>197.6</u> ft, bgs Bottom: <u>207.6</u> ft, bgs
	Bottom of Bentonite Top of Filter Pack 195.0	Sump/end cap Top: <u>207.6</u> ft, bgs Bottom: <u>208.0</u> ft, bgs
	16/40 mesh Filter pack	Grout Quantity: <u>262</u> gallons
	Top of Screen 197.6	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
	0.010 Slot screen	Grout Top: <u>2.0</u> ft, bgs Bottom: <u>191.3</u> ft, bgs
		Density Initial: <u>10.0</u> lbs/gal Return: <u>10.0</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>191.3</u> ft, bgs Bottom: <u>195.0</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>195.0</u> ft, bgs Bottom: <u>210.3</u> ft, bgs
	Bottom of screen 207.6	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	208.0 Sump/end cap	Baroid Hole Plug bentonite chips used as backfill material
	Top of backfill below filter pack (see notes) 210.3	
	210.3 Base of filter pack	
	Terminus of borehole	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>7/10/2021</u>	Date Completed: <u>8/8/2021</u>
Borehole/Well No: <u>GS-AP-MW-11R</u>	Northing (ft): <u>1320922.39</u>	Easting (ft): <u>2063407.72</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6308403</u>	Longitude: <u>-87.1881976</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>452.90</u>	Stickup (ft, ags): <u>2.7</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>160.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>144.5</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>455.60</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>84.95</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.7</u>	Stick up: <u>2.7</u> ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	
—	Outer casing	Casing Type (steel or PVC, schedule 40 or 80): <u>Schedule 40 PVC</u>
—		Casing Top: <u>2.7</u> ft, ags Bottom: <u>134.1</u> ft, bgs
—	Bottom of Grout <u>128.2</u> Top of Bentonite	Screen Type: <u>PVC U-Pack Type II</u>
—		Screen Slot Size: <u>0.010</u>
—	2" inch casing	Screen Top: <u>134.1</u> ft, bgs Bottom: <u>144.1</u> ft, bgs
—	Bottom of Bentonite <u>132.5</u> Top of Filter Pack	Sump/end cap Top: <u>144.1</u> ft, bgs Bottom: <u>144.5</u> ft, bgs
—	16/40 mesh Filter pack	Grout Quantity: <u>190</u> gallons
—	Top of Screen <u>134.1</u>	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
—		Grout Top: <u>0.0</u> ft, bgs Bottom: <u>128.2</u> ft, bgs
—	0.010 Slot screen	Density Initial: <u>NP</u> lbs/gal Return: <u>NP</u> lbs/gal
—		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
—		Bentonite Seal Top: <u>128.2</u> ft, bgs Bottom: <u>132.5</u> ft, bgs
—		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
—		Filter Pack: Top: <u>132.5</u> ft, bgs Bottom: <u>150.0</u> ft, bgs
—	Bottom of screen <u>144.1</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
—		Baroid Hole Plug bentonite chips used as backfill material 160.0 feet bgs to 150.0 bgs.
—	144.5 Sump/end cap	
—	Top of backfill below filter pack (see notes) <u>150.0</u>	
—	150.0 Base of filter pack	
—	Terminus of borehole <u>160.0</u>	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>6/29/2021</u>	Date Completed: <u>8/8/2021</u>
Borehole/Well No: <u>GS-AP-MW-13R</u>	Northing (ft): <u>1319695.90</u>	Easting (ft): <u>2063863.84</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6274659</u>	Longitude: <u>-87.1867114</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>457.82</u>	Stickup (ft, ags): <u>2.8</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>180.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>165.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>460.66</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ft, bgs): <u>99.28</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Andrew Stevens</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up 2.8	Stick up: 2.8 ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	
	Outer casing	Casing Type (steel or PVC, schedule 40 or 80): Schedule 40 PVC
		Casing Top: 2.8 ft, ags Bottom: 155.0 ft, bgs
	Bottom of Grout 148.5 Top of Bentonite	Screen Type: PVC U-Pack Type II
		Screen Slot Size: 0.010
	2" inch casing	Screen Top: 155.0 ft, bgs Bottom: 165.0 ft, bgs
	Bottom of Bentonite 152.7 Top of Filter Pack	Sump/end cap Top: 165.0 ft, bgs Bottom: 165.4 ft, bgs
	16/40 mesh Filter pack	Grout Quantity: 240 gallons
	Top of Screen 155.0	Grout Type: Baroid Aqua Guard 30% Solids Grout
		Grout Top: 1.0 ft, bgs Bottom: 148.5 ft, bgs
	0.010 Slot screen	Density Initial: NA lbs/gal Return: NA lbs/gal
		Bentonite Type: Pel Plug 3/8" PDS TR30 pellets
		Bentonite Seal Top: 148.5 ft, bgs Bottom: 152.7 ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): Southern Product & Silica Co. Filter Sand and Gravel #1
		Filter Pack: Top: 152.7 ft, bgs Bottom: 167.9 ft, bgs
	Bottom of screen 165	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) 167.9	
	165.4 Sump/end cap	
	167.9 Base of filter pack	
	Terminus of borehole 180	Baroid Hole Plug bentonite chips used as backfill material from 167.9-180 feet

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>7/8/2021</u>	Date Completed: <u>8/9/2021</u>
Borehole/Well No: <u>GS-AP-MW-14R</u>	Northing (ft): <u>1318594.55</u>	Easting (ft): <u>2063763.70</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6244400</u>	Longitude: <u>-87.1870513</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>471.62</u>	Stickup (ft, ags): <u>2.7</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>210.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>199.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>474.32</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ft, bgs): <u>105.51</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.7</u>	Stick up: <u>2.7</u> ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): <u>Schedule 40 PVC</u>
	Outer casing	Casing Top: <u>2.7</u> ft, ags Bottom: <u>189.0</u> ft, bgs
	Bottom of Grout <u>181.8</u> Top of Bentonite	Screen Type: <u>PVC U-Pack Type II</u>
	2" inch casing	Screen Slot Size: <u>0.010</u>
	Bottom of Bentonite <u>186.1</u> Top of Filter Pack	Screen Top: <u>189.0</u> ft, bgs Bottom: <u>199.0</u> ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: <u>199.0</u> ft, bgs Bottom: <u>199.4</u> ft, bgs
	Top of Screen <u>189.0</u>	Grout Quantity: <u>250</u> gallons
	0.010 Slot screen	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
		Grout Top: <u>0.5</u> ft, bgs Bottom: <u>181.8</u> ft, bgs
		Density Initial: <u>NA</u> lbs/gal Return: <u>NA</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>181.8</u> ft, bgs Bottom: <u>186.1</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>186.1</u> ft, bgs Bottom: <u>201.8</u> ft, bgs
	Bottom of screen <u>199.0</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) <u>201.8</u>	
	199.4 Sump/end cap	
	201.8 Base of filter pack	
	Terminus of borehole <u>210.5</u>	Baroid Hole Plug bentonite chips used as backfill material from 210.8-210.5 feet.

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>8/11/2021</u>	Date Completed: <u>11/3/2021</u>
Borehole/Well No: <u>GS-AP-MW-18R</u>	Northing (ft): <u>1314928.60</u>	Easting (ft): <u>2067040.57</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6143376</u>	Longitude: <u>-87.1763243</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>459.80</u>	Stickup (ft, ags): <u>3.0</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>57.4</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>53.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>463.07</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>45.09</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Josh Massey/Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up 3.0	Stick up: 3.0 ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): PVC
	Outer casing	Casing Top: 3.0 ft, ags Bottom: 43.0 ft, bgs
	Bottom of Grout 38.7 Top of Bentonite	Screen Type: PVC U-Pack Type II
	2" inch casing	Screen Slot Size: 0.010
	Bottom of Bentonite 40.7 Top of Filter Pack	Screen Top: 43.0 ft, bgs Bottom: 53.0 ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: 53.0 ft, bgs Bottom: 53.4 ft, bgs
	Top of Screen 43.0	Grout Quantity: 60 gallons
	0.010 Slot screen	Grout Type: Baroid Aqua Guard 30% Solids Grout
		Grout Top: 0.0 ft, bgs Bottom: 38.7 ft, bgs
		Density Initial: 10.0 lbs/gal Return: 10.0 lbs/gal
		Bentonite Type: Pel Plug 3/8" PDS TR30 pellets
		Bentonite Seal Top: 38.7 ft, bgs Bottom: 40.7 ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): Southern Product & Silica Co. Filter Sand and Gravel #1
		Filter Pack: Top: 40.7 ft, bgs Bottom: 54.1 ft, bgs
	Bottom of screen 53.0	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) 54.1	
	53.4 Sump/end cap	
	54.1 Base of filter pack	
	Terminus of borehole 57.4	Baroid Hole Plug bentonite chips used as backfill material from 54.1-57.4 feet

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>9/28/2021</u>	Date Completed: <u>11/3/2021</u>
Borehole/Well No: <u>GS-AP-MW-18VR</u>	Northing (ft): <u>1314931.31</u>	Easting (ft): <u>2067022.14</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6143452</u>	Longitude: <u>-87.1763848</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>459.55</u>	Stickup (ft, ags): <u>2.9</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>220.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>217.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>462.80</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>195.81</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.9</u>	Stick up: <u>2.9</u> ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): <u>Schedule 40 PVC</u>
—	Outer casing	Casing Top: <u>2.9</u> ft, ags Bottom: <u>207.0</u> ft, bgs
—		Screen Type: <u>PVC U-Pack Type II</u>
—		Screen Slot Size: <u>0.010</u>
—	Bottom of Grout <u>201.0</u> Top of Bentonite	Screen Top: <u>207.0</u> ft, bgs Bottom: <u>217.0</u> ft, bgs
—		Sump/end cap Top: <u>217.0</u> ft, bgs Bottom: <u>217.4</u> ft, bgs
—	Bottom of Bentonite <u>204.8</u> Top of Filter Pack	Grout Quantity: <u>300 gallons</u>
—	16/40 mesh Filter pack	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
—	Top of Screen <u>207.0</u>	Grout Top: <u>0.0</u> ft, bgs Bottom: <u>201.0</u> ft, bgs
—		Density Initial: <u>10.0</u> lbs/gal Return: <u>10.0</u> lbs/gal
—	0.010 Slot screen	Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
—		Bentonite Seal Top: <u>201.0</u> ft, bgs Bottom: <u>204.8</u> ft, bgs
—		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
—		Filter Pack: Top: <u>204.8</u> ft, bgs Bottom: <u>220.0</u> ft, bgs
—	Bottom of screen <u>217.0</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
—	Top of backfill below filter pack (see notes) <u>220.0</u>	
—	217.4 Sump/end cap	
—	220.0 Base of filter pack	
—	Terminus of borehole	Baroid Hole Plug bentonite chips used as backfill material

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>8/17/2021</u>	Date Completed: <u>11/3/2021</u>
Borehole/Well No: <u>GS-AP-PZ-18R</u>	Northing (ft): <u>1314925.44</u>	Easting (ft): <u>2067060.19</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6143287</u>	Longitude: <u>-87.1762599</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>459.81</u>	Stickup (ft, ags): <u>3.0</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>120.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>112.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>463.13</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>96.25</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up 3.0	Stick up: 3.0 ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): Schedule 40 PVC
	Outer casing	Casing Top: 3.0 ft, ags Bottom: 102.0 ft, bgs
	Bottom of Grout 38.7 Top of Bentonite	Screen Type: PVC U-Pack Type II
	2" inch casing	Screen Slot Size: 0.010
	Bottom of Bentonite 99.4 Top of Filter Pack	Screen Top: 102.0 ft, bgs Bottom: 112.0 ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: 112.0 ft, bgs Bottom: 112.4 ft, bgs
	Top of Screen 102.0	Grout Quantity: 120 gallons
	0.010 Slot screen	Grout Type: Baroid Aqua Guard 30% Solids Grout
		Grout Top: 0.0 ft, bgs Bottom: 95.2 ft, bgs
		Density Initial: 10.0 lbs/gal Return: 10.0 lbs/gal
		Bentonite Type: Pel Plug 3/8" PDS TR30 pellets
		Bentonite Seal Top: 95.2 ft, bgs Bottom: 99.4 ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): Southern Product & Silica Co. Filter Sand and Gravel #1
		Filter Pack: Top: 99.4 ft, bgs Bottom: 115.3 ft, bgs
	Bottom of screen 112.0	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) 115.3	
	112.4 Sump/end cap	
	115.3 Base of filter pack	
	Terminus of borehole 120.0	Baroid Hole Plug bentonite chips used as backfill material from 115.3-120.0 feet.

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>9/26/2021</u>	Date Completed: <u>10/7/2021</u>
Borehole/Well No: <u>GS-AP-MW-23V</u>	Northing (ft): <u>1324906.06</u>	Easting (ft): <u>2063770.86</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6417851</u>	Longitude: <u>-87.1869650</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>303.34</u>	Stickup (ft, ags): <u>3.1</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>86.2</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>84.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>306.40</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>43.88</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up 3.1	Stick up: 3.1 ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): PVC
	Outer casing	Casing Top: 3.1 ft, ags Bottom: 74.0 ft, bgs
	Bottom of Grout 66.5 Top of Bentonite	Screen Type: PVC U-Pack Type II
	2" inch casing	Screen Slot Size: 0.010
	Bottom of Bentonite 70.7 Top of Filter Pack	Screen Top: 74.0 ft, bgs Bottom: 84.0 ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: 84.0 ft, bgs Bottom: 84.4 ft, bgs
	Top of Screen 74.0	Grout Quantity: 180 gallons
	0.010 Slot screen	Grout Type: Baroid Aqua Guard 30% Solids Grout
		Grout Top: 0.5 ft, bgs Bottom: 66.5 ft, bgs
		Density Initial: 10.1 lbs/gal Return: 10.1 lbs/gal
		Bentonite Type: Pel Plug 3/8" PDS TR30 pellets
		Bentonite Seal Top: 66.5 ft, bgs Bottom: 70.7 ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): Southern Product & Silica Co. Filter Sand and Gravel #1
		Filter Pack: Top: 70.7 ft, bgs Bottom: 86.2 ft, bgs
	Bottom of screen 84.0	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) N/A	
	84.4 Sump/end cap	
	86.2 Base of filter pack	
	Terminus of borehole 86.2	Sand filter pack used as backfill material

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>6/29/2021</u>	Date Completed: <u>7/9/2021</u>
Borehole/Well No: <u>GS-AP-MW-27HR</u>	Northing (ft): <u>1317233.91</u>	Easting (ft): <u>2063501.93</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6207029</u>	Longitude: <u>-87.1879247</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>531.32</u>	Stickup (ft, ags): <u>2.7</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>300.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>277.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>535.26</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ft, bgs): <u>163.90</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up _____ 2.67	Stick up: _____ 2.7 ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): <u>Schedule 40 PVC</u>
	Outer casing	Casing Top: _____ 2.7 ft, ags Bottom: _____ 277.4 ft, bgs
	Bottom of Grout _____ 259.8 Top of Bentonite	Screen Type: <u>PVC U-Pack Type II</u>
	2" inch casing	Screen Slot Size: <u>0.010</u>
	Bottom of Bentonite _____ 264.3 Top of Filter Pack	Screen Top: _____ 267.0 ft, bgs Bottom: _____ 277.0 ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: _____ 277.0 ft, bgs Bottom: _____ 277.4 ft, bgs
	Top of Screen _____ 267	Grout Quantity: <u>415 gallons</u>
	0.010 Slot screen	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
		Grout Top: _____ 0.5 ft, bgs Bottom: _____ 259.8 ft, bgs
		Density Initial: _____ NA lbs/gal Return: _____ NA lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: _____ 259.8 ft, bgs Bottom: _____ 264.3 ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: _____ 280.1 ft, bgs Bottom: _____ 264.3 ft, bgs
	Bottom of screen _____ 277	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) _____ 280.1	
	277.4 Sump/end cap	
	280.1 Base of filter pack	
	Terminus of borehole 300	Baroid Hole Plug bentonite chips used as backfill material

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>10/11/2021</u>	Date Completed: <u>10/12/2021</u>
Borehole/Well No: <u>GS-AP-MW-31V</u>	Northing (ft): <u>1321049.87</u>	Easting (ft): <u>2068723.91</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6311453</u>	Longitude: <u>-87.1707312</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>585.88</u>	Stickup (ft, ags): <u>2.6</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>335.5</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>325.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>588.49</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>228.45</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>David Webb</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.6</u>	Stick up: <u>2.6</u> ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): <u>2" ID PVC</u>
—	Outer casing	Casing Top: <u>2.6</u> ft, ags Bottom: <u>315.0</u> ft, bgs
—	Bottom of Grout <u>307.5</u> Top of Bentonite	Screen Type: <u>PVC U-Pack Type II</u>
—	2" inch casing	Screen Slot Size: <u>0.010</u>
—	Bottom of Bentonite <u>311.5</u> Top of Filter Pack	Screen Top: <u>315.0</u> ft, bgs Bottom: <u>325.0</u> ft, bgs
—	16/40 mesh Filter pack	Sump/end cap Top: <u>325.0</u> ft, bgs Bottom: <u>325.4</u> ft, bgs
—	Top of Screen <u>315</u>	Grout Quantity: <u>500</u> gallons
—	0.010 Slot screen	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
—		Grout Top: <u>0.0</u> ft, bgs Bottom: <u>307.5</u> ft, bgs
—		Density Initial: <u>10.1</u> lbs/gal Return: <u>9.9</u> lbs/gal
—		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
—		Bentonite Seal Top: <u>198.4</u> ft, bgs Bottom: <u>202.6</u> ft, bgs
—		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
—		Filter Pack: Top: <u>307.5</u> ft, bgs Bottom: <u>311.5</u> ft, bgs
—	Bottom of screen <u>325</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
—	Top of backfill below filter pack (see notes) <u>329.2</u>	Backfill below sand pack: Pel Plug 3/8" PDS TR30 pellets placed from 335.5' to 329.2' then sand filter pack used as backfill to the bottom of the screen interval at 325.4'.
—	325.4 Sump/end cap	
—	329.2 Base of filter pack	
—	Terminus of borehole <u>335.5</u>	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>9/27/2021</u>	Date Completed: <u>10/7/2021</u>
Borehole/Well No: <u>GS-AP-MW-36V</u>	Northing (ft): <u>1316538.79</u>	Easting (ft): <u>2063638.24</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6187914</u>	Longitude: <u>-87.1874838</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>533.82</u>	Stickup (ft, ags): <u>3.0</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>325.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>317.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>537.05</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>264.20</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up 3.0	Stick up: 3.0 ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): 2" ID PVC
	Outer casing	Casing Top: 3.0 ft, ags Bottom: 307.0 ft, bgs
	Bottom of Grout 299.5 Top of Bentonite	Screen Type: PVC U-Pack Type II
	2" inch casing	Screen Slot Size: 0.010
	Bottom of Bentonite 303.6 Top of Filter Pack	Screen Top: 307.0 ft, bgs Bottom: 317.0 ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: 317.0 ft, bgs Bottom: 317.4 ft, bgs
	Top of Screen 307	Grout Quantity: 360 gallons
	0.010 Slot screen	Grout Type: Baroid Aqua Guard 30% Solids Grout
		Grout Top: 0.0 ft, bgs Bottom: 303.6 ft, bgs
		Density Initial: 10.0 lbs/gal Return: 10.0 lbs/gal
		Bentonite Type: Pel Plug 3/8" PDS TR30 pellets
		Bentonite Seal Top: 299.5 ft, bgs Bottom: 303.6 ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): Southern Product & Silica Co. Filter Sand and Gravel #1
		Filter Pack: Top: 307.5 ft, bgs Bottom: 311.5 ft, bgs
	Bottom of screen 317	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) 320.3	Backfill below sand pack: Pel Plug 3/8" PDS TR30 pellets placed from 325.0' to 320.3' with sand filter pack used above
	317.4 Sump/end cap	
	320.3 Base of filter pack	
	Terminus of borehole 325	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>8/3/2021</u>	Date Completed: <u>9/12/2021</u>
Borehole/Well No: <u>GS-AP-MW-37HR</u>	Northing (ft): <u>1319191.68</u>	Easting (ft): <u>2062611.50</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6260905</u>	Longitude: <u>-87.1908304</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>457.27</u>	Stickup (ft, ags): <u>2.8</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>250.8</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>241.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>460.05</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>145.80</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
— — —	Stick up <u>2.8</u>	Stick up: <u>2.8</u> ft, ags
Ground surface - 0.0'	4" Inch Diameter Protective Cover with Locking Lid Outer casing	Casing Type (steel or PVC, schedule 40 or 80): <u>PVC</u>
Bottom of Grout Top of Bentonite <u>224.2</u>		Casing Top: <u>2.8</u> ft, ags Bottom: <u>231.0</u> ft, bgs
Bottom of Bentonite Top of Filter Pack <u>228.1</u>	2" inch casing 16/40 mesh Filter pack	Screen Type: <u>PVC U-Pack Type II</u>
Top of Screen <u>231.0</u>	0.010 Slot screen	Screen Slot Size: <u>0.010</u>
		Screen Top: <u>231.0</u> ft, bgs Bottom: <u>241.0</u> ft, bgs
		Sump/end cap Top: <u>241.0</u> ft, bgs Bottom: <u>241.4</u> ft, bgs
		Grout Quantity: <u>326</u> gallons
		Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
		Grout Top: <u>2.0</u> ft, bgs Bottom: <u>224.2</u> ft, bgs
		Density Initial: <u>N/A</u> lbs/gal Return: <u>N/A</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>224.2</u> ft, bgs Bottom: <u>228.1</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>228.1</u> ft, bgs Bottom: <u>244.4</u> ft, bgs
Bottom of screen <u>241.0</u>	241.4 Sump/end cap	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
Top of backfill below filter pack (see notes) <u>244.4</u>	244.4 Base of filter pack	
Terminus of borehole <u>250.8</u>		Baroid Hole Plug bentonite chips used as backfill material from 250.8 ft, bgs to 244.4 ft, bgs followed by sand filter pack material.

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>9/7/2021</u>	Date Completed: <u>9/12/2021</u>
Borehole/Well No: <u>GS-AP-MW-45V</u>	Northing (ft): <u>1323716.51</u>	Easting (ft): <u>2068639.25</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6384745</u>	Longitude: <u>-87.1709814</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>547.76</u>	Stickup (ft, ags): <u>2.8</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>265.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>257.0</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>550.59</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>201.7</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.8</u>	Stick up: <u>2.8</u> ft, ags
—	Ground surface - 0.0'	Casing Type (steel or PVC, schedule 40 or 80): <u>PVC</u>
—	Outer casing	Casing Top: <u>2.8</u> ft, ags Bottom: <u>246.6</u> ft, bgs
	Bottom of Grout <u>239.7</u> Top of Bentonite	Screen Type: <u>PVC U-Pack Type II</u>
	2" inch casing	Screen Slot Size: <u>0.010</u>
	Bottom of Bentonite <u>243.9</u> Top of Filter Pack	Screen Top: <u>246.6</u> ft, bgs Bottom: <u>256.6</u> ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: <u>256.6</u> ft, bgs Bottom: <u>257.0</u> ft, bgs
	Top of Screen <u>246.6</u>	Grout Quantity: <u>340</u> gallons
	0.010 Slot screen	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
		Grout Top: <u>0.5</u> ft, bgs Bottom: <u>239.7</u> ft, bgs
		Density Initial: <u>10.1</u> lbs/gal Return: <u>10.1</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>239.7</u> ft, bgs Bottom: <u>243.9</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>243.9</u> ft, bgs Bottom: <u>260.2</u> ft, bgs
	Bottom of screen <u>256.6</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) <u>260.2</u>	
	257.0 Sump/end cap	
	260.2 Base of filter pack	
		Sand filter pack used as backfill material
	Terminus of borehole <u>265.0</u>	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>10/10/2021</u>	Date Completed: <u>11/3/2021</u>
Borehole/Well No: <u>GS-AP-MW-46</u>	Northing (ft): <u>1320304.25</u>	Easting (ft): <u>2066944.53</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6291117</u>	Longitude: <u>-87.1765846</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>488.01</u>	Stickup (ft, ags): <u>2.9</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>218.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>215.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>491.25</u>	Screen length (ft): <u>21.0</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>127.55</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>David Webb</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.9</u>	Stick up: <u>2.9</u> ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): <u>2" ID PVC</u>
—	Outer casing	Casing Top: <u>2.9</u> ft, ags Bottom: <u>194.0</u> ft, bgs
—		Screen Type: <u>PVC U-Pack Type II</u>
—		Screen Slot Size: <u>0.010</u>
—	Bottom of Grout <u>186.6</u> Top of Bentonite	Screen Top: <u>194.0</u> ft, bgs Bottom: <u>215.0</u> ft, bgs
—		Sump/end cap Top: <u>215.0</u> ft, bgs Bottom: <u>215.4</u> ft, bgs
—	Bottom of Bentonite <u>191</u> Top of Filter Pack	Grout Quantity: <u>275</u> gallons
—	16/40 mesh Filter pack	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
—	Top of Screen <u>194</u>	Grout Top: <u>0.0</u> ft, bgs Bottom: <u>198.4</u> ft, bgs
—		Density Initial: <u>10.1</u> lbs/gal Return: <u>10.0</u> lbs/gal
—	0.010 Slot screen	Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
—		Bentonite Seal Top: <u>198.4</u> ft, bgs Bottom: <u>202.6</u> ft, bgs
—		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
—		Filter Pack: Top: <u>202.6</u> ft, bgs Bottom: <u>218.8</u> ft, bgs
—	Bottom of screen <u>215</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
—	Top of backfill below filter pack (see notes) <u>218.8</u>	Backfill below sand pack: Sand filter pack used as backfill to the bottom of the screen interval.
—	215.4 Sump/end cap	
—	218.8 Base of filter pack	
—	Terminus of borehole <u>218.8</u>	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>10/27/2021</u>	Date Completed: <u>11/6/2021</u>
Borehole/Well No: <u>GS-AP-MW-47</u>	Northing (ft): <u>1318564.84</u>	Easting (ft): <u>2063754.57</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>33.6243584</u>	Longitude: <u>-87.1870816</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>NAD83</u>	Elevation Datum: <u>NAVD 1988</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>471.88</u>	Stickup (ft, ags): <u>2.9</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>242.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>239.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>475.09</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotosonic</u>	DTW at Completion (ftoc): <u>121.50</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

*Not to Scale

Depth (feet)	Well Construction	Materials Inventory
—	Stick up <u>2.9</u>	Stick up: <u>2.9</u> ft, ags
—	Ground surface - 0.0'	
—	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): <u>PVC</u>
	Outer casing	Casing Top: <u>2.9</u> ft, ags Bottom: <u>229.0</u> ft, bgs
	Bottom of Grout <u>222.0</u> Top of Bentonite	Screen Type: <u>PVC U-Pack Type II</u>
	2" inch casing	Screen Slot Size: <u>0.010</u>
	Bottom of Bentonite <u>226.1</u> Top of Filter Pack	Screen Top: <u>229.0</u> ft, bgs Bottom: <u>239.0</u> ft, bgs
	16/40 mesh Filter pack	Sump/end cap Top: <u>239.0</u> ft, bgs Bottom: <u>239.4</u> ft, bgs
	Top of Screen <u>229.0</u>	Grout Quantity: <u>300</u> gallons
	0.010 Slot screen	Grout Type: <u>Baroid Aqua Guard 30% Solids Grout</u>
		Grout Top: <u>1.0</u> ft, bgs Bottom: <u>222.0</u> ft, bgs
		Density Initial: <u>10.2</u> lbs/gal Return: <u>10.2</u> lbs/gal
		Bentonite Type: <u>Pel Plug 3/8" PDS TR30 pellets</u>
		Bentonite Seal Top: <u>222.0</u> ft, bgs Bottom: <u>226.1</u> ft, bgs
		Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): <u>Southern Product & Silica Co. Filter Sand and Gravel #1</u>
		Filter Pack: Top: <u>226.1</u> ft, bgs Bottom: <u>242.0</u> ft, bgs
	Bottom of screen <u>239.0</u>	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
	Top of backfill below filter pack (see notes) <u>N/A</u>	
	239.4 Sump/end cap	
	242.0 Base of filter pack	Sand filter pack used as backfill material
	Terminus of borehole <u>242.0</u>	

Well Installation Field Log

Project Name: <u>Plant Gorgas Geologic Services</u>	Date Started: <u>10/22/2021</u>	Date Completed: <u>10/23/2021*</u>
Borehole/Well No: <u>GS-GSA-PZ-25</u>	Northing (ft): <u>Not Surveyed</u>	Easting (ft): <u>Not Surveyed</u>
Plant Name: <u>Gorgas</u>	Latitude: <u>Not Surveyed</u>	Longitude: <u>Not Surveyed</u>
Plant Address: <u>460 Gorgas Rd, Parrish, AL 35580</u>	Location Datum: <u>Not Surveyed</u>	Elevation Datum: <u>Not Surveyed</u>
Project & Task Number: <u>175520214 / 202</u>	Surface/ Ground Elevation: <u>Not Surveyed</u>	Stickup (ft, ags): <u>3.0</u>
Goals/Task: <u>Gorgas Ash Pond Well Installations</u>	Borehole Diameter (in): <u>6.0</u>	Borehole Depth (ft, bgs): <u>66.0</u>
Drilling Company: <u>Cascade Drilling</u>	Well Casing Diameter (in): <u>2.0</u>	Well Depth (ft, bgs): <u>59.4</u>
Drilling Equipment/Rig Type: <u>Truck Mounted PS-150 Sonic</u>	Top of Casing elev (ft): <u>Not Surveyed</u>	Screen length (ft): <u>10</u>
Drilling Method: <u>4" x 6" Rotasonic</u>	DTW at Completion (ftoc): <u>50.13</u>	
Sampling Method: <u>Sonic 4" core barrel</u>		
Prepared By: <u>Walker Padgett</u>		
Review By: <u>Edgar Smith</u>		

***Not to Scale**

Depth (feet)	Well Construction	Materials Inventory
—	Stick up _____ 3.0	Stick up: _____ 3.0 ft, ags
—	Ground surface - 0.0'	
+	4" Inch Diameter Protective Cover with Locking Lid	Casing Type (steel or PVC, schedule 40 or 80): _____ Schedule 40 PVC
+	Outer casing	Casing Top: _____ 3.0 ft, ags Bottom: _____ 49.0 ft, bgs
+	Bottom of Grout _____ 41.9	Screen Type: _____ PVC U-Pack Type II
+	Top of Bentonite _____ 41.9	Screen Slot Size: _____ 0.010
+	2" inch casing	Screen Top: _____ 49.0 ft, bgs Bottom: _____ 59.0 ft, bgs
+	Bottom of Bentonite _____ 46.2	Sump/end cap Top: _____ 59.0 ft, bgs Bottom: _____ 59.4 ft, bgs
+	Top of Filter Pack _____ 46.2	Grout Quantity: _____ 70 gallons
+	16/40 mesh Filter pack	Grout Type: _____ Baroid Aqua Guard 30% Solids Grout
+	Top of Screen _____ 49.0	Grout Top: _____ 0.0 ft, bgs Bottom: _____ 41.9 ft, bgs
+	0.010 Slot screen	Density Initial: _____ 10.0 lbs/gal Return: _____ 10.0 lbs/gal
+	59.4 Sump/end cap	Bentonite Type: _____ Pel Plug 3/8" PDS TR30 pellets
+	Bottom of screen _____ 59.0	Bentonite Seal Top: _____ 41.9 ft, bgs Bottom: _____ 46.2 ft, bgs
+	Top of backfill below filter pack (see notes) _____ 62.1	Filter Pack - Pre-pack and Annular Space Type (manufacturer, size): _____ Southern Product & Silica Co. Filter Sand and Gravel #1
+	62.1 Base of filter pack	Filter Pack: Top: _____ 46.2 ft, bgs Bottom: _____ 62.1 ft, bgs
+	Terminus of borehole _____ 66.0	Notes: Bentonite seal hydrated a minimum of 4-hours prior to grout backfill placement.
		Baroid Hole Plug bentonite chips used as backfill material
		* GS-GSA-PZ-25 was abandoned on 11/2/22.

ATTACHMENT F

Well Abandonment Forms



Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: GS-AP-MW-01
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Andrew Stevens/Cascade
 Project & Task Number: 175520214 Date: 9/25/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<input checked="" type="checkbox"/> 2"	<input checked="" type="checkbox"/> 6"	<input checked="" type="checkbox"/> Permanent
<input type="checkbox"/> n/a 4"	<input type="checkbox"/> n/a 7"	<input type="checkbox"/> n/a Temporary
<input type="checkbox"/> n/a 6"	<input type="checkbox"/> n/a 12"	<input type="checkbox"/> n/a Geoprobe® Screen Point (GSP) or Equiv.
<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> 96.2 feet bgs Measured Total Depth*
		<input type="checkbox"/> 96.0 feet bgs Measured Static Water Level

Casing Material

PVC (screen from 86' to 96')

n/a Steel

n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout

n/a Well Extraction

Grout in Place

n/a Bentonite Sealing-Pellets and Neat Cement

n/a Bentonite Sealing-Pellets only

n/a Probe Hole Grouting

n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite

n/a Bentonite Pellets

n/a Neat Cement

x Other **(20 gallons of water and one and a quarter 50-pound bags Halliburton Aqua Guard)**

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)

n/a Drummed for Disposal

Prepared By: Walker Padgett Date: 1/3/2022
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: GS-AP-MW-01Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Andrew Stevens/CascadeProject & Task Number: 175520214Date: 9/25/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks: None**

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: GS-AP-MW-18
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Josh Massey
 Project & Task Number: 175520214 Date: 8/6/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<input checked="" type="checkbox"/> 2"	<input checked="" type="checkbox"/> 6"	<input checked="" type="checkbox"/> Permanent
<input type="checkbox"/> n/a 4"	<input type="checkbox"/> n/a 7"	<input type="checkbox"/> n/a Temporary
<input type="checkbox"/> n/a 6"	<input type="checkbox"/> n/a 12"	<input type="checkbox"/> n/a Geoprobe® Screen Point (GSP) or Equiv.
<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> 89.9 feet bgs Measured Total Depth*
		<input type="checkbox"/> 47 feet bgs Measured Static Water Level

Casing Material

PVC (screen from 86' to 96')

n/a Steel

n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout

n/a Well Extraction

Grout in Place

n/a Bentonite Sealing-Pellets and Neat Cement

n/a Bentonite Sealing-Pellets only

n/a Probe Hole Grouting

n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite

n/a Bentonite Pellets

n/a Neat Cement

x Other (**20 gallons of Baroid 30% solids bentonite grout**)

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)

n/a Drummed for Disposal

Prepared By: Josh Massey Date: 8/19/2021
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: GS-AP-MW-18Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Josh MasseyProject & Task Number: 175520214Date: 8/6/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks:**

1. Field crew removed dedicated pumps, bollards and well protection on 8/5/2021.
 2. Tremie-grouting completed within two-inch screen and casing from 0 feet bgs to 89.9 feet bgs on 8/6/2021.
 3. Approximately 20 gallons placed within two-inch well casing. Top 5 feet of PVC riser was removed.
- *Field measurement at MW-18 prior to abandonment differed by approximately 6.94 feet from as-built depth.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: GS-AP-MW-18
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Josh Massey
 Project & Task Number: 175520214 Date: 8/6/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<input checked="" type="checkbox"/> 2"	<input checked="" type="checkbox"/> 6"	<input checked="" type="checkbox"/> Permanent
<input type="checkbox"/> n/a 4"	<input type="checkbox"/> n/a 7"	<input type="checkbox"/> n/a Temporary
<input type="checkbox"/> n/a 6"	<input type="checkbox"/> n/a 12"	<input type="checkbox"/> n/a Geoprobe® Screen Point (GSP) or Equiv.
<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> 127.6 feet bgs Measured Total Depth*
		<input type="checkbox"/> 117.5 feet bgs Measured Static Water Level

Casing Material

PVC (screen from 124' to 134')

n/a Steel

n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout

n/a Well Extraction

Grout in Place

n/a Bentonite Sealing-Pellets and Neat Cement

n/a Bentonite Sealing-Pellets only

n/a Probe Hole Grouting

n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite

n/a Bentonite Pellets

n/a Neat Cement

x Other (**30 allons of Baroid 30% solids bentonite grout**)

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)

n/a Drummed for Disposal

Prepared By: Josh Massey Date: 8/19/2020

Reviewed By: Edgar Smith Date: 1/25/2022

General InformationProject Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: GS-AP-MW-18Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Josh MasseyProject & Task Number: 175520214Date: 8/6/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks:**

1. Field crew removed dedicated pumps, bollards and well protection on 8/5/2021.
 2. Tremie-grouting completed within two-inch screen and casing from 0 feet bgs to 127.6 feet bgs on 8/6/2021.
 3. Approximately 30 gallons placed within two-inch well casing. Top 5 feet of PVC riser was removed.
- *Field measurement at MW-18V prior to abandonment differed by approximately 6.4 feet from as-built depth.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: GS-AP-PZ-18
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Josh Massey
 Project & Task Number: 175520214 Date: 8/6/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<input checked="" type="checkbox"/> 2"	<input checked="" type="checkbox"/> 6"	<input checked="" type="checkbox"/> Permanent
<input type="checkbox"/> n/a 4"	<input type="checkbox"/> n/a 7"	<input type="checkbox"/> n/a Temporary
<input type="checkbox"/> n/a 6"	<input type="checkbox"/> n/a 12"	<input type="checkbox"/> n/a Geoprobe® Screen Point (GSP) or Equiv.
<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> 183.76 feet btoc Measured Total Depth*
		<input type="checkbox"/> 125.35 feet btoc Measured Static Water Level

Casing Material

PVC (screen from 171' to 181')
 n/a Steel
 n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout
 n/a Well Extraction
 Grout in Place
 n/a Bentonite Sealing-Pellets and Neat Cement
 n/a Bentonite Sealing-Pellets only
 n/a Probe Hole Grouting
 n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite
 n/a Bentonite Pellets
 n/a Neat Cement
 x Other (**40 allons of Baroid 30% solids bentonite grout**)

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)
 n/a Drummed for Disposal

Prepared By: Josh Massey Date: 8/19/2020
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: GS-AP-PZ-18Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Josh MasseyProject & Task Number: 175520214Date: 8/6/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks:**

1. Field crew removed dedicated pumps, bollards and well protection on 8/5/2021. 7-inch PVC surface casing was still in-situ.
 2. Tremie-grouting completed within two-inch screen and casing from 0 feet bgs to 183.76 feet toc on 8/6/2021.
 3. Approximately 40 gallons placed within two-inch well casing. Surface riser PVC casing removed to about 4 inches below grade.
- *Difference in 2/25/2016 as-built depth of 183.79 feet btoc at PZ-18 and 8/5/2021 field measurement at PZ-18 prior to abandonment is 3.32 feet.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: GS-AP-MW-27H
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Walker Padgett/Josh Massey
 Project & Task Number: 175520214 Date: 8/6/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<input checked="" type="checkbox"/> 2"	<input checked="" type="checkbox"/> 6"	<input checked="" type="checkbox"/> Permanent
<input type="checkbox"/> n/a 4"	<input type="checkbox"/> n/a 7"	<input type="checkbox"/> n/a Temporary
<input type="checkbox"/> n/a 6"	<input type="checkbox"/> n/a 12"	<input type="checkbox"/> n/a Geoprobe® Screen Point (GSP) or Equiv.
<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> 242.5 feet bgs Measured Total Depth
		<input type="checkbox"/> 233 feet bgs Measured Static Water Level

Casing Material

PVC (screen from 232' to 242')

n/a Steel

n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout

n/a Well Extraction

Grout in Place

n/a Bentonite Sealing-Pellets and Neat Cement

n/a Bentonite Sealing-Pellets only

n/a Probe Hole Grouting

n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite

n/a Bentonite Pellets

n/a Neat Cement

x Other (**40 gallons of Baroid 30% solids bentonite grout; one 50-pound bag HOLEPLUG bentonite chips**)

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)

n/a Drummed for Disposal

Prepared By: Josh Massey Date: 8/19/2020
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: GS-AP-MW-27HPlant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Walker Padgett/Josh MasseyProject & Task Number: 175520214Date: 8/6/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks:**

1. Field crew removed bollards and well protection on 7/9/2021.
2. Halliburton HOLEPLUG 3/8-inch bentonite chips added within well screen interval to from 242.5 feet bgs to 230.1 feet bgs on 7/9/2021 by Walker Padgett. Depth to top of hydrated chips was 227 feet bgs on 8/6/2021; 0.7-inches of water was overlying top of hydrated chips. Tremie grouting of two-inch casing completed from 2 feet bgs to 227 feet bgs on 8/6/2021.
3. Approximately 40 gallons placed within two-inch well casing above screen interval plugged with bentonite chips.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: GS-AP-MW-37H
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Walker Padgett/Josh Massey
 Project & Task Number: 175520214 Date: 8/4/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<input checked="" type="checkbox"/> 2"	<input checked="" type="checkbox"/> 6"	<input checked="" type="checkbox"/> Permanent
<input type="checkbox"/> n/a 4"	<input type="checkbox"/> n/a 7"	<input type="checkbox"/> n/a Temporary
<input type="checkbox"/> n/a 6"	<input type="checkbox"/> n/a 12"	<input type="checkbox"/> n/a Geoprobe® Screen Point (GSP) or Equiv.
<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> 290.5 feet bgs Measured Total Depth
		<input type="checkbox"/> 148.3 feet bgs Measured Static Water Level

Casing Material

PVC (screen from 270' to 290')
 n/a Steel
 n/a Other N/A

Abandonment Details (Check one per section):
Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout
 n/a Well Extraction
 Grout in Place
 n/a Bentonite Sealing-Pellets and Neat Cement
 n/a Bentonite Sealing-Pellets only
 n/a Probe Hole Grouting
 n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite
 n/a Bentonite Pellets
 n/a Neat Cement
 x Other **(80 gallons of water and 3.5 x 50-pounds Halliburton Aqua Guard; three 50-pound bags HOLEPLUG bentonite chips)**

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)
 n/a Drummed for Disposal

Prepared By: Josh Massey Date: 8/19/2020
 Reviewed By: Edgar Smith Date: 1/25/2022

General InformationProject Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: GS-AP-MW-37HPlant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Walker Padgett/Josh MasseyProject & Task Number: 175520214Date: 8/4/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks:**

1. Field crew removed bollards and well protection on 7/9/2021.
2. Baroid HOLEPLUG 3/8-inch bentonite chips added within well screen interval to from 290.5 feet bgs to 270 feet bgs on 7/9/2021 by Walker Padgett. Depth to top of hydrated chips was 261 feet bgs on 8/4/2021. Groundwater level overlying top of hydrated chips was 138.25 feet bgs on 8/4/2021. Tremie-grouting of two-inch casing completed from 0 feet bgs to 261 feet bgs on 8/4/2021.
3. Approximately 80 gallons placed within two-inch well casing above screen interval plugged with bentonite chips. Top 13.31 feet of PVC riser was removed.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: Boring GS-AP-MW-45H
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Mark Padgett/Cascade Drilling
 Project & Task Number: 175520214 Date: 9/9/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<u>n/a</u> 2"	<input checked="" type="checkbox"/> <u>6</u> 6"	<u>n/a</u> Permanent
<u>n/a</u> 4"	<u>n/a</u> 7"	<u>n/a</u> Temporary
<u>n/a</u> 6"	<u>n/a</u> 12"	<u>n/a</u> Geoprobe® Screen Point (GSP) or Equiv.
<u>n/a</u> Other/NA	<u>n/a</u> Other/NA	<u>216.0</u> Measured Total Depth
		<u>190.9</u> Measured Static Water Level

Casing Material

n/a PVC

n/a Steel

n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout

n/a Well Extraction

X Grout in Place

n/a Bentonite Sealing-Pellets and Neat Cement

n/a Bentonite Sealing-Pellets only

n/a Probe Hole Grouting

n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite

3 bags Hole Plug Bentonite Pellets

n/a Neat Cement

315 gallons aqua guard Other

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)

n/a Drummed for Disposal

Prepared By: Walker Padgett Date: 1/10/2022

Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: Boring GS-AP-MW-45HPlant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Mark Padgett/Cascade DrillingProject & Task Number: 175520214Date: 9/9/2021Goal/Task: Phase III Ash Pond Well Installations

Additional Remarks: Three bags of hole plug were added to the base of the borehole interval prior to grouting bringing the top of bentonite up to 182 feet BGS.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: Boring GS-AP-MW-45HA
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Andrew Stevens/Cascade Drilling
 Project & Task Number: 175520214 Date: 9/9/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type	
<u>n/a</u> 2"	<input checked="" type="checkbox"/> <u>6</u> "	<u>n/a</u>	Permanent
<u>n/a</u> 4"	<u>n/a</u> 7"	<u>n/a</u>	Temporary
<u>n/a</u> 6"	<u>n/a</u> 12"	<u>n/a</u>	Geoprobe® Screen Point (GSP) or Equiv.
<u>n/a</u> Other/NA	<u>n/a</u> Other/NA	<u>218.0</u>	Measured Total Depth
		<u>198.0</u>	Measured Static Water Level

Casing Material

n/a PVC

n/a Steel

n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout

n/a Well Extraction

 Grout in Place

n/a Bentonite Sealing-Pellets and Neat Cement

n/a Bentonite Sealing-Pellets only

n/a Probe Hole Grouting

n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite

13 bags Hole Plug Bentonite Pellets

n/a Neat Cement

280 gallons aqua guard Other

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)

n/a Drummed for Disposal

Prepared By: Walker Padgett Date: 1/3/2022

Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: Boring GS-AP-MW-45HAPlant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Andrew Stevens/Cascade DrillingProject & Task Number: 175520214Date: 9/9/2021Goal/Task: Phase III Ash Pond Well Installations

Additional Remarks: Thirteen bags of bentonite pellets were added to the boring in effort to seal off the voided area below 215 feet bgs where fluid and circulation were lost during drilling.



Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: GS-GSA-PZ-03
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Andrew Stevens
 Project & Task Number: 175520214 Date: 10/25/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<input checked="" type="checkbox"/> 2"	<input checked="" type="checkbox"/> 6"	<input checked="" type="checkbox"/> Permanent
<input type="checkbox"/> n/a 4"	<input type="checkbox"/> n/a 7"	<input type="checkbox"/> n/a Temporary
<input type="checkbox"/> n/a 6"	<input type="checkbox"/> n/a 12"	<input type="checkbox"/> n/a Geoprobe® Screen Point (GSP) or Equiv.
<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> n/a Other/NA	<input type="checkbox"/> 120.4 Measured Total Depth
		<input type="checkbox"/> 114.8 Measured Static Water Level

Casing Material

PVC (screen interval unknown)
 n/a Steel
 n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout
 n/a Well Extraction
 Grout in Place
 n/a Bentonite Sealing-Pellets and Neat Cement
 n/a Bentonite Sealing-Pellets only
 n/a Probe Hole Grouting
 n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite
 n/a Bentonite Pellets
 n/a Neat Cement
 x Other (**20 gallons of water and one 50-pounds Halliburton Aqua Guard; one bucket PelPlug bentonite pellets**)

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)
 n/a Drummed for Disposal

Prepared By: Andrew Stevens Date: 10/28/2021
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: GS-GSA-PZ-03Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Andrew StevensProject & Task Number: 175520214Date: 10/25/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks: None**

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: Boring GS-GSA-PZ-23
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Andrew Stevens/Cascade Drilling
 Project & Task Number: 175520214 Date: 10/21/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

<u>Casing Diameter</u>	<u>Borehole Diameter</u>	<u>Well Type</u>
<u>n/a 2"</u>	<u>n/a 6"</u>	<u>n/a</u> Permanent
<u>n/a 4"</u>	<input checked="" type="checkbox"/> <u>7"</u>	<u>n/a</u> Temporary
<u>n/a 6"</u>	<u>n/a 12"</u>	<u>n/a</u> Geoprobe® Screen Point (GSP) or Equiv.
<u>n/a Other/NA</u>	<u>n/a Other/NA</u>	<u>110.0</u> Measured Total Depth
		<u>n/a</u> Measured Static Water Level

Casing Material
n/a PVC
n/a Steel
n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)
n/a Overdrill and Grout
n/a Well Extraction
 Grout in Place
n/a Bentonite Sealing-Pellets and Neat Cement
n/a Bentonite Sealing-Pellets only
n/a Probe Hole Grouting
n/a Re-proved for through-the-rod grouting

Materials and Quantity Used
n/a Type 1 Portland Cement mixed with 3-5% bentonite
31 bags Hole Plug Bentonite Pellets
n/a Neat Cement
120 gallons aqua guard Other

Overdrilled Well Cuttings and Debris
n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)
n/a Drummed for Disposal

Prepared By: Walker Padgett Date: 1/10/2022
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: Boring GS-GSA-PZ-23Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Andrew Stevens/Cascade DrillingProject & Task Number: 175520214Date: 10/21/2021Goal/Task: Phase III Ash Pond Well Installations

Additional Remarks: Holeplug was set from 57.5-110.0 feet. Due to void from 55.5-59.5 feet, field crew use spiderplug to seal off 7 inch boring at 51.5 ft bgs. Holeplug from 48.8-51.5 feet bgs.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: Boring GS-GSA-PZ-24
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Andrew Stevens/Cascade Drilling
 Project & Task Number: 175520214 Date: 10/24/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

<u>Casing Diameter</u>	<u>Borehole Diameter</u>	<u>Well Type</u>
<u>n/a 2"</u>	<u>n/a 6"</u>	<u>n/a</u> Permanent
<u>n/a 4"</u>	<input checked="" type="checkbox"/> <u>7"</u>	<u>n/a</u> Temporary
<u>n/a 6"</u>	<u>n/a 12"</u>	<u>n/a</u> Geoprobe® Screen Point (GSP) or Equiv.
<u>n/a Other/NA</u>	<u>n/a Other/NA</u>	<u>56.0</u> Measured Total Depth
		<u>56.0</u> Measured Static Water Level

Casing Material
n/a PVC
n/a Steel
n/a Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)
n/a Overdrill and Grout
n/a Well Extraction
 Grout in Place
n/a Bentonite Sealing-Pellets and Neat Cement
n/a Bentonite Sealing-Pellets only
n/a Probe Hole Grouting
n/a Re-proved for through-the-rod grouting

Materials and Quantity Used
n/a Type 1 Portland Cement mixed with 3-5% bentonite
1 bags Hole Plug Bentonite Pellets
n/a Neat Cement
100 gallons aqua guard Other

Overdrilled Well Cuttings and Debris
n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)
n/a Drummed for Disposal

Prepared By: Walker Padgett Date: 1/10/2022
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: Boring GS-GSA-PZ-24Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Andrew Stevens/Cascade DrillingProject & Task Number: 175520214Date: 10/24/2021Goal/Task: Phase III Ash Pond Well Installations

Additional Remarks: Three bags of hole plug were added to the screen interval prior to grouting bringing the top of bentonite up to 182 feet BGS.

Due to void from 46.0-55.0 ft, field crew put spiderplug to seal off 7 inch boring at 42.0 ft bgs. Holeplug from 39.0-51.5.

Monitoring Well Abandonment Form

General Information

Project Name: Plant Gorgas – Well Installation and Abandonments
 Monitoring Well Number: Boring GS-GSA-PZ-25
 Plant Name: Plant Gorgas
 Plant Address: 460 Gorgas Rd, Parrish, AL 35580 Abandoned by: Edgar Smith/Cascade Drilling
 Project & Task Number: 175520214 Date: 11/2/2021
 Goal/Task: Phase III Ash Pond Well Installations

Well Details (Check one per section):

Casing Diameter	Borehole Diameter	Well Type
<u>n/a</u> 2"	<u>n/a</u> 6"	<u>n/a</u> Permanent
<u>n/a</u> 4"	<input checked="" type="checkbox"/> 7"	<u>n/a</u> Temporary
<u>n/a</u> 6"	<u>n/a</u> 12"	<u>n/a</u> Geoprobe® Screen Point (GSP) or Equiv.
<u>n/a</u> Other/NA	<u>n/a</u> Other/NA	<u>59.4</u> Measured Total Depth
		<u>55.7</u> Measured Static Water Level

Casing Material
<u>n/a</u> PVC
<u>n/a</u> Steel
<u>n/a</u> Other N/A

Abandonment Details (Check one per section):

Abandonment Method (as detailed in SOW)

n/a Overdrill and Grout
 n/a Well Extraction
 X Grout in Place
 n/a Bentonite Sealing-Pellets and Neat Cement
 n/a Bentonite Sealing-Pellets only
 n/a Probe Hole Grouting
 n/a Re-proved for through-the-rod grouting

Materials and Quantity Used

n/a Type 1 Portland Cement mixed with 3-5% bentonite
 3 bags Hole Plug Bentonite Pellets
 n/a Neat Cement
 315 gallons aqua guard Other

Overdrilled Well Cuttings and Debris

n/a Staged Onsite for Disposal (covered top and bottom with poly-sheeting)
 n/a Drummed for Disposal

Prepared By: Walker Padgett Date: 1/10/2022
 Reviewed By: Edgar Smith Date: 1/25/2022

Monitoring Well Abandonment Form**General Information**Project Name: Plant Gorgas – Well Installation and AbandonmentsMonitoring Well Number: Boring GS-GSA-PZ-25Plant Name: Plant GorgasPlant Address: 460 Gorgas Rd, Parrish, AL 35580Abandoned by: Edgar Smith/Cascade DrillingProject & Task Number: 175520214Date: 11/2/2021Goal/Task: Phase III Ash Pond Well Installations**Additional Remarks:** Three bags of hole plug were added to the screen interval prior to grouting bringing the top of bentonite up to 46 feet BGS.

ATTACHMENT G

Daily Field Reports



Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Monday, 6/21/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Replacement monitoring wells proposed / MWs completed = 12/0

Monitoring well abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

Lay-down yard

Look Ahead:

Gain security access to plant, Set-up lay-down yard, establish clear access to drill locations, mobilize equipment to GS-AP-MW-27HR, begin drilling boring GS-AP-MW-27HR.

Conditions:

Weather: Overcast and rainy 81° F (AM) - 85° F (PM)

Access issues: None.

Daily Activities:

1400 – Walker Padgett (WP-Stantec) meets Brandon Coates (BC-SCS CFS) and Shannon McDonald (SM-SCS CFS) onsite to view boring locations. Cascade drill crew not onsite

1500 – WP exits the site through the main construction gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	0.0	18.0	--	18.0
Stantec Field inspector (1)	1.0	6.0	0.0	7.0
Total				25.0

Safety/Environmental: Practice safe driving.

Comments: None

Reviewed by SCS-CFS:	<i>S. McDonald</i>	Date/Signature:	<i>Shannon McDonald</i>
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	--	--	--	--	222	--	--	--
GS-AP-MW-14R	--	--	--	--	254.19	--	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	--	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 6/22/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Replacement monitoring wells proposed / MWs completed = 12/0

Monitoring well abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-27HR

Look Ahead:

Resume drilling boring GS-AP-MW-27HR.

Conditions:

Weather: Partly Cloudy 74° F (AM) - 83° F (PM)

Access Issues: None.

Daily Activities:

0730 – Walker Padgett (WP-Stantec) arrives onsite. Brandon Coates (BC-SCS CFS), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite.

0745 – Field crew checks in at the badging office for updated security clearance and access badges.

0915 – Field crew begins mobilizing equipment to the lay-down yard.

1000 – DW places request for additional drilling equipment to be delivered to the site on 6/23/21. Field crew inspects work locations.

1300 – Field crew is shown the water source and sets up a tap into the municipal water fire hydrant. DW and JW begin mobilizing the rig to GS-AP-MW-27HR.

1645 – Begin drilling GS-AP-MW-27HR from ground surface.

1800 – GS-AP-MW-27HR advanced to a depth of 17 feet below ground surface (bgs).

1815 – WP, DW, JW, Tyson, and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	32.25	4.5 (3) SM	--	36.75
Stantec Field inspector (1)	10.75	1.5	1.5	13.75
			Daily Total	50.5

Safety/Environmental: Practice safe driving.

Comments: None

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Oliver McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	--	--	--	--	222	--	--	--
GS-AP-MW-14R	--	--	--	--	254.19	--	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	--	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 6/23/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Replacement monitoring wells proposed / MWs completed = 12/0

Monitoring well abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-27HR

Look Ahead:

Resume drilling boring GS-AP-MW-27HR.

Conditions:

Weather: Sunny 75° F (AM) - 86° F (PM)

Access issues: None.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing.

0815 – Drilling resumes at boring GS-AP-MW-27HR (MW-27HR) from a depth of 17 feet below ground surface (bgs).

1000 – Rotary sonic drilling of boring MW-27HR is terminated at 30 feet bgs. Top of competent rock is encountered at 27 feet bgs.

1010 – SM escorts Jeremy Pate, SCS EHS, to work area around boring MW-27HR. Drill crew begins preparing the rig for air hammer drilling.

1200 – Jeremy Pate leaves the work area.

1210 – DW receive shipment of well construction materials and drill tooling. Supplied and equipment are unloaded and stowed in the lay-down yard.

1300 – Drill crew begins work on drill rig to convert the plumbing in the sonic drill head to allow for air hammer drilling.

1500 – Drillers swap out air hammer for a replacement air hammer bit due to equipment malfunction.

1600 – Drillers begin maintenance and troubleshooting on both air hammer bits due to malfunction.

1730 – WP, DW, JW, TW, and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	4.5 (3)SH	--	36
Stantec Field Inspector (1)	10.5	1.5	0.5	12.5
Total				48.5

Safety/Environmental: Practice safe driving.

Comments: None

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shawn McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	--	--	--	--	222	--	--	--
GS-AP-MW-14R	--	--	--	--	254.19	--	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	--	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 6/24/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Replacement monitoring wells proposed / MWs completed = 12/0

Monitoring well abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-27HR

Look Ahead:

Oversee Golder geophysics assessment of GS-AP-MW-27HR (MW-27HR). Assess access to GS-AP-MW-37HR and begin drilling that location, or if further road construction is needed begin drilling GS-AP-MW-14R.

Conditions:

Weather: Sunny 75° F (AM) - 86° F (PM)

Access issues: None.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing.

0800 – DW prepares the rig to begin air hammer drilling at boring MW-27HR.

0835 – Cascade begins air hammer drilling boring MW-27HR from a depth of 30 feet below ground surface (bgs).

1549 – WP instructs DW to airlift boring MW-27HR to assess groundwater recharge into the boring. Boring MW-27HR was advanced to a depth of 280 feet bgs at the time of airlift.

1608 – DW performs airlift from boring MW-27HR. The boring sustains a production rate of approximately 1 gallon per minute (gpm) during continued airlift. WP instructs DW to advance MW-27HR to a depth of 300 feet bgs.

1700 – Boring MW-27HR is advanced to 300 feet bgs. Field crew tidies the work area before departure.

1730 – WP, DW, JW, TW, and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	4.5 (3)SM	--	36
Stantec Field inspector (1)	10.5	1.5	0.5	12.5
Total				48.5

Safety/Environmental: Practice safe driving.

Comments: The gate to access MW-27HR is scheduled to be inaccessible on 6/25/21 due to materials

testing near the gate. Field crew will use alternate access route.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shaun McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	--	--	--	--	222	--	--	--
GS-AP-MW-14R	--	--	--	--	254.19	--	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	300	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 6/25/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Replacement monitoring wells proposed / MWs completed = 12/0

Monitoring well abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-13R (MW-13R).

Look Ahead:

Resume drilling of boring GS-AP-MW-13R (MW-13R).

Conditions:

Weather: Sunny 75° F (AM) - 86° F (PM)

Access issues: None.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing.

0720 – Field crew arrives at the access gate to GS-AP-MW-27HR (MW-27HR), and the access gate is temporarily blocked for the remainder of the day on 6/25/2021.

0745 – WP, DW, and SM inspect the access route to GS-AP-MW-37HR (MW-37HR). The road is currently inaccessible to the drill rig and support vehicles and must be rehabilitated before drilling can occur. SM notified Greg Miller (SCS-CFS) of the need for road maintenance.

0820 – Golder geophysics personnel Davis Crocker (DC) and Chris Bryant (CB) arrive onsite at the main security guard shack.

0845 – Field crew mobilizes to MW-27HR via the gate 6 access point on Bankhead Road to begin breaking down equipment for mobilization to MW-13R.

1035 – WP gauges depth to water in boring MW-27HR to a depth of 253.24 feet below ground surface (bgs) after removing drill rods and the air hammer from the boring. Total depth is measured to an approximate depth of 299.75 feet bgs.

1220 – Golder begins setting up down-hole equipment at boring MW-27HR

1340 – Cascade switches downhole tooling from 6-inch core barrel and 7-inch casing to 4-inch core barrel and 6-inch casing in the lay-down yard.

1430 – Cascade begins setting up the rig at boring MW-13R.

1550 – Cascade begins drilling MW-13R from ground surface.

1650 – MW-13R is advanced to a depth of 27 feet bgs. Field crew tidies the work area before site departure.

1715 – Field crew, including Golder personnel, exit the work area.

1730 – WP, DW, JW, TW, DC, CB and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	4.5 (3) SM	NA	36
Stantec Field inspector (1)	10.5	1.5	0.5	12.5
Total				48.5

Safety/Environmental: Practice safe driving.

Comments: The materials testing crew has stated access to MW-27HR will be opened by the end of the day on 6/25/2021. Greg Miller notified SM the access road to MW-37HR is scheduled to be maintained the week of 6/28/2021.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Oliver McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	Ongoing	--	--	--	222	--	--	--
GS-AP-MW-14R	--	--	--	--	254.19	--	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Saturday, 6/26/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Current Work Location:

GS-AP-MW-13R (MW-13R).

Look Ahead:

Resume drilling of boring MW-13R.

Conditions:

Weather: Sunny 75° F (AM) - 86° F (PM)

Access Issues: None.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing.

0715 – Field crew arrives at the work area around MW-13R and conducts pre-job brief and fills out the JSA.

0745 – Drilling resumes in boring MW-13R from a depth of 27 feet bgs.

0925 – Boring MW-13R is advanced to a depth of 40 feet bgs. Competent rock was encountered at a depth of 35 feet bgs. Cascade begins over-drilling the boring with 7" casing.

1045 – Cascade begins converting the drill rig over to air hammer drilling technique.

1249 – Cascade begins air hammering boring MW-13R from a depth of 40 feet.

1423 – Boring MW-13R is advanced to a depth of 110 feet bgs. Fractures were encountered at approximately 94 feet and 97 feet. The boring is cleaned out by adding water through the drill stem and blowing it out through the boring. After purging the added water, the boring is allowed 20 minutes to naturally produce water through suspected fractures. No water is produced during the airlift performed after twenty minutes of natural re-charge time. WP instructs Cascade to resume drilling.

1545 – Boring MW-13R is advanced to a depth of 120 feet bgs. WP instructs Cascade to purge the boring of water to measure groundwater re-charge of the boring. After purging the added water, WP measures re-charge in the boring with a water level meter. No groundwater re-charge is observed after 15 minutes. WP instructs Cascade to resume air hammer drilling.

1640 – Boring MW-13R is advanced to a depth 130 feet bgs. Field crew tidies the work area before site departure.

1700 – WP, DW, JW, TW and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	4.5 (3) SM	NA	34.5
Stantec Field inspector (1)	10	1.5	0.5	12
Total				46.5

Safety/Environmental: Practice safe driving.

Comments: The materials testing crew has stated access to MW-27HR will be opened by the end of the day on 6/25/2021. Greg Miller notified SM the access road to MW-37HR is scheduled to be maintained the week of 6/28/2021.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shawna McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	Ongoing	--	--	--	222	--	--	--
GS-AP-MW-14R	--	--	--	--	254.19	--	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Sunday, 6/27/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-14R (MW-14R).

Look Ahead:

Resume drilling of boring MW-14R.

Conditions:

Weather: Sunny 80° F (AM) - 92° F (PM)

Access issues: None.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing.

0715 – Field crew arrives at the work area around MW-13R and conducts pre-job brief and fills out the JSA.

0755 – WP gauges depth to water in boring MW-13R. Water is not encountered. Air hammer drilling resumes in boring MW-13R from a depth of 130 feet bgs.

0925 – Boring MW-13R is advanced to a depth of 180 feet bgs. Coal seams were encountered from 160 - 162 feet bgs and 171 - 172 feet bgs.

1015 – WP discusses the lithology of MW-13R with Greg Budd (SCS) and the decision is made to terminate the boring at 180 feet bgs.

1030 – Cascade begins breaking down the rig and mobilizing equipment to MW-14R.

1130 – WP boxes up the core recovered from boring MW-13R.

1355 – Cascade begins drilling boring MW-14R from ground surface.

1500 – Boring MW-14R is advanced to a depth of 30 feet bgs. Top of competent rock was encountered at 11.5 feet bgs. Cascade begins over-drilling the boring with 7-inch casing.

1545 – The 7-inch casing is installed to 30 feet bgs. Cascade begins converting the rig over to air hammer drilling technique.

1630 – Depth to water in MW-13R is measured at 156.37 feet bgs.

1700 – WP, DW, JW, TW and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	4.5 (3)SM	NA	34.5
Stantec Field inspector (1)	10	1.5	0.5	12
Total	40	6	0.5	46.5

Safety/Environmental: Practice safe driving.

Comments: Davis Crocker with Golder is schedules to visit the site on 6/28 to perform geophysical assessment of MW-13R.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Olavard McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	Ongoing	--	--	--	222	180**	--	--
GS-AP-MW-14R	Ongoing	--	--	--	254.19	--	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 6/28/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

MW-14R

Look Ahead:

Install monitoring wells MW-27HR and MW-13R.

Conditions:

Weather: Sunny 80° F (AM) - 92° F (PM)

Access issues: None.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing. WP assists Andrew Stevens (AS-Stantec) with security check-in. Cascade crew proceeds to work area and populates the JSA form.

0735 – WP gauges boring MW-13R. Ground water is gauged at a depth of 122.80 feet bgs. Cascade resumes setting up the air hammer rig at MW-14R.

0845 – Sunbelt rentals maintenance technician arrives onsite to inspect the air compressor used for air hammering.

0851 – Cascade begins air hammer drilling boring MW-14R.

1030 – Greg Budd (SCS) arrives onsite to observe drilling progress and site conditions. Davis Crocker (DC-Golder) arrives onsite to perform geophysical logging of boring MW-13R.

1034 – WP begins a rising head test after water in the boring is purged by the airlift method. The rising head test is performed with the boring at a depth of 70 feet bgs. Results of the rising head test are provided in Attachment 2. The rising head test is completed at 1056. DW, SM, GB and Greg Miller (SCS) inspect the road to MW-37HR to identify areas in need of maintenance.

1134 – Cascade resumes drilling MW-14R. WP boxes the core recovered from boring MW-14R.

1610 – MW-14R is terminated at a depth of 210 feet bgs.

1615 – WP exits the site through the main security gate. Davis Crocker exits the site through the main security gate.

1730 – AS, DW, JW, TW and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	4.5 (3)	NA	36
Stantec Field inspector (2)	20	4	0	24
Total	51.5	8.5	0	60

Safety/Environmental: Practice safe driving.

Comments: None

Attachment 1: Well Status

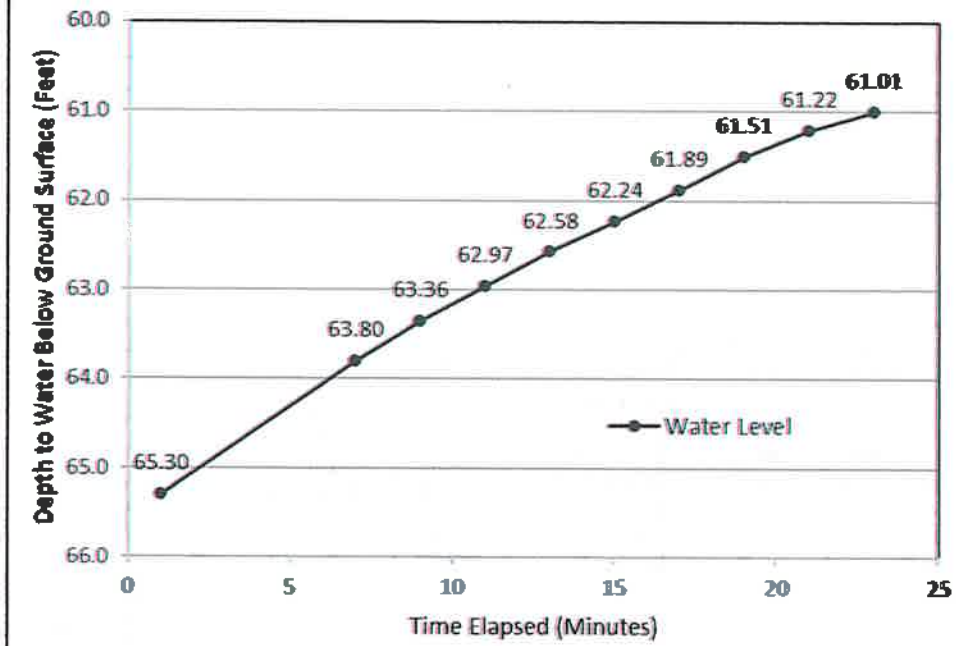
Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	Ongoing	--	--	--	222	180**	--	--
GS-AP-MW-14R	Ongoing	--	--	--	254.19	210**	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	--	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Attachment 2: MW-14R Rising Head Test (see page 3)

MW-14R Rising Head Test



Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shannon McDonald
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Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 6/29/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Current Work Location:

Set wells in MW-13R and MW-27HR

Look Ahead:

Grout and pull casing at MW-27HR, demobilize from site.

Conditions:

Weather: Overcast/Rain 73° F (AM) - 86° F (PM)

Access issues: None.

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing. Walker Padgett (WP-Stantec) demobilizes from site

0715 – Field crew arrive at the work area around MW-14R, conduct pre-job brief and fill out the JSA.

0730 – Cascade begin demobilizing rig from boring MW-14R.

0845 – DW notices small diesel leak from air compressor, DW calls Sunbelt to get a replacement. Cascade crew cleans up spill. AS takes depth to water (DTW) of MW-14R – 99.61 feet bgs.

0910 – JW and TW take air compressor to security parking lot for pick up.

0930 – DW begins setting up the rig at boring MW-13R to set well.

1000 – JW and TW arrive at MW-13R with well supplies. Begin setting well.

1157 – ~~Grout~~ ^{Bent} set at 148.6 feet bgs; 4-hour hydration begins. Field crew mobilize rig to MW-27HR.

1500 – SM leaves to pick up PVC clamp used to set well at MW-27HR.

1520 – SM returns to MW-27HR. Cascade drill crew continue to set well.

1619 – ~~Grout~~ ^{Bent} set at 259.8 feet bgs; 4-hour hydration begins. Field crew begin packing up equipment.

1700 – AS, DW, JW, TW and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	4.5	NA	34.5
Stantec Field inspector (2)	10	1.5	0.5	12
Total				46.5

Safety/Environmental: Practice safe driving.

Comments: None

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	7/8/21 @ Lawrence McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	Ongoing	--	--	155.0-165.0	222	180**	--	--
GS-AP-MW-14R	Ongoing	--	--	--	254.19	210**	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	267.0-277.0	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Wednesday, 6/30/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-27HR (MW-27HR).

Look Ahead:

Mobilize 07/06/2021 and finish setting well MW-13R.

Conditions:

Weather: Sunny/Cloudy 70° F (AM) - 88° F (PM)

Access issues: None.

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Jasper Williams (JW-Cascade), and Tyson Williams (TW-Cascade) onsite. Check in with security and conduct pre-job briefing.

0720 – Field crew arrive at the laydown yard, conduct pre-job brief, fill out the JSA, and collect supplies for grouting well MW-27HR.

0755 – Davis Crocker (DC-Golder) arrives onsite to conduct geophysical logging at MW-14R. Cascade and Stantec crews move to MW-27HR to begin grouting.

0815 – Grout mixer not working properly. DW beings troubleshooting.

1030 – Cascade begins grouting MW-27HR.

1200 – Grout set to surface. Cascade begins pulling 7 inch casing from ground, and breaking down drill rig.

1310 – AS, DW, JW and TW conduct post-job brief and leave MW-27HR.

1330 – AS, DW, JW, TW exit the site through the main Rattlesnake Lake security gate and demobilize from site. SM and DC are still onsite.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	16.5	18.0	NA	34.5
Stantec Field inspector (1)	5.5	4.5	1.5	11.5
Total				46.0

Safety/Environmental: Practice safe driving. Move tripping hazards from work area.

Comments: Crews will be back onsite 7/6/2021 at 1300.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	7/8/21 S. McDonald
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	--	--	--	--	226	--	--	--
GS-AP-MW-13R	Ongoing	--	--	155.0-165.0	222	180**	--	--
GS-AP-MW-14R	Ongoing	--	--	--	254.19	210**	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	267.0-277.0	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 7/6/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-11R (MW-11R).

Look Ahead:

Resume drilling of boring MW-11R.

Conditions:

Weather: Sunny 81° F (AM) - 86° F (PM)

Access issues: None.

Daily Activities:

1305 – Andrew Stevens (AS-Stantec) and Shannon McDonald (SM-SCS CFS) arrive onsite. David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) are onsite. NS gets gate access while rest of the crew check in with security.

1410 – Field crew arrives at the work area around laydown yard, conducts pre-job brief and fills out the JSA.

1435 – Cascade begin demobilizing rig from boring MW-27HR.

1525 – Cascade begins setting up the rig at boring MW-11R.

1630 – Casing set into overburden. Field crews begin cleaning work area.

1705 – Field crew conducts post-job brief and fills out the JSA.

1730 – AS, DW, NS, TW and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	14.5	18	NA	32.5
Stantec Field inspector (1)	4.5	3.5	1.0	9.0
Total				41.5

Safety/Environmental: Practice safe driving.

Comments: MW-11R was moved 10 feet from original location so the drill rig could be set up.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	7/8/11 <i>Quane McDonald</i>
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	Ongoing	--	--	--	226	--	--	--
GS-AP-MW-13R	Ongoing	--	--	155.0-165.0	222	180**	--	--
GS-AP-MW-14R	Ongoing	--	--	--	254.19	210**	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	267.0-277.0	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 7/7/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-11R (MW-11R).

Look Ahead:

Conduct Geophysical Survey at MW-11R, grout MW-13R, and set well at MW-14R.

Conditions:

Weather: Overcast/rain 71° F (AM) - 82° F (PM)

Access issues: None.

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) onsite.

0710 – Field crew arrives at the work area around laydown yard and conducts pre-job brief and fills out the JSA.

0755 – Cascade begin sonic drilling boring MW-11R.

1050 – Boring MW-11R is advanced to a depth of 50 feet bgs. Competent rock was encountered at a depth of 25 feet bgs. Cascade begins over-drilling the boring with 7-inch casing.

1135 – Outer casing set to 50 feet bgs. Cascade switches from sonic coring to air hammer.

1300 – Cascade begins air hammer drilling boring MW-11R at 50 feet bgs

1510 – Cascade stops air hammer drilling boring MW-11R at 150 feet bgs due to water bearing fracture present at approximately 142 feet bgs. The boring is cleaned out by adding water through the drill stem and blowing it out through the boring. After purging the added water, the boring is allowed ten minutes to naturally produce water through suspected fractures. Significant water is produced during the airlift performed after ten minutes of natural re-charge time. AS calls Greg Dyer (GD-SCS) about water bearing zone and is producing significant water. GD suggests drilling to 160 feet bgs.

1535 – Cascade stops air hammer drilling boring MW-11R at 160 feet bgs. TD reached. Cascades starts breaking down drill rig.

1650 – AS gauges boring MW-11R. Ground water is gauged at a depth of 84.95 feet bgs.

1715 – Field crew conducts post-job brief and fills out the JSA.

1730 – AS, DW, NS, TW and SM exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field Inspector (1)	10.5	1.0	2.0	13.5
Total				48.0

Safety/Environmental: Practice safe driving.

Comments: MW-11R was moved 10 feet from original location so the drill rig could be set up.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Lawrence McDonald</i>
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	Ongoing	--	--	--	226	160**	--	--
GS-AP-MW-13R	Ongoing	--	--	155.0-165.0	222	180**	--	--
GS-AP-MW-14R	Ongoing	--	--	--	254.19	210**	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	267.0-277.0	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 7/8/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring wells proposed / MWs completed = 12/0

Monitoring Well Abandonments proposed / completed = 6/0

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-11R (MW-11R), GS-AP-MW-13R (MW-13R), GS-AP-MW-14R (MW-14R),

Look Ahead:

Build well pad for MW-27HR and begin well abandonments

Conditions:

Weather: Overcast/rain 72° F (AM) - 86° F (PM)

Access issues: Muddy ground conditions at MW-13R

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrives onsite; Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) are onsite.

0710 – Field crew arrives at the work area around laydown yard and conducts pre-job brief and fills out the JSA.

0715 – Davis Crocker (DC-Golder) arrives onsite and conducts pre-job brief and fills out the JSA. DC will run geophysical analysis on MW-11R.

0735 – Cascade begin moving rig to MW-13R.

0850 – AS calls Greg Dyer (GD-SCS) about screened interval for MW-14R. GD suggests screening 189-199 feet bgs. Cascade crew begins loading well supplies for MW-14R.

0910 – Cascade drill crew begins setting well MW-14R.

1057 – Bentonite pellets are set to 181.8 bgs, and pellets begin 4-hour hydration.

1105 – Cascade arrives to move rig to MW-13R. TW leaves to bring water to DC at MW-11R.

1225 – SM calls Greg Miller (GM-SCS) about gravel delivery to MW-13R.

1240 – TW arrives back at MW-13R.

1335 – R. B. Jergens delivers gravel; NS leaves to acquire skid steer bucket from laydown yard. Skid steer bucket is not in laydown yard. SM calls GM to communicate with other site staff to try and locate.

1405 – Bucket is delivered. Cascade begins spreading gravel at MW-13R.

1500 – Grout mixing pump not receiving pressure from the rig. DW begins trouble shooting.

1545 – Field crews begin cleaning work area.

1625 – DW conducts post-job brief and fills out the JSA and exits the site through the main Rattlesnake Lake security gate.

1640 – NS and TW conducts post-job brief and fills out the JSA and exit the site through the main

Rattlesnake Lake security gate.

1700 – AS, SM and DC conduct post-job brief and fill out the JSA.

1715 – AS, SM and DC exit the site through the main Rattlesnake Lake security gate.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (2)	10.25	6.0	1.0	17.25
Total				51.0

Safety/Environmental: Practice safe driving.

Comments: Walker Padgett (WP-Stantec) drives 5-hours for travel day.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Laurel McDonald</i>
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Attachment 1: Well Status

Southern Company Services								
Plant Gorgas Well Installation and Abandonment								
Alabama Power								
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Date Installed	Date Abandoned
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-01R	--	--	--	--	248.42	--	--	--
GS-AP-MW-05R	--	--	--	--	191.42	--	--	--
GS-AP-MW-09R	--	--	--	--	160	--	--	--
GS-AP-MW-10R	--	--	--	--	225	--	--	--
GS-AP-MW-11R	Ongoing	--	--	--	226	160**	--	--
GS-AP-MW-13R	Ongoing	--	--	155.0-165.0	222	180**	--	--
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210**	--	--
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18R	--	--	--	--	150-197	--	--	--
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-18VR	--	--	--	--	215	--	--	--
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-PZ-18R	--	--	--	--	212	--	--	--
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-27HR	Ongoing	--	--	267.0-277.0	335.91	300**	--	--
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	NA	--
GS-AP-MW-37HR	--	--	--	--	251	--	--	--

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review



Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 7/9/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 1/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-11R (MW-11R), GS-AP-MW-13R (MW-13R), GS-AP-MW-14R (MW-14R),

Look Ahead:

Install well MW-11R, grout MW-13R, MW-14R, and MW-11R

Conditions:

Weather: Partly cloudy 74° F (AM) - 90° F (PM)

Access Issues: The access road to MW-37HR must be completed before drilling commences.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) onsite.

0715 – Field crew arrives at the work area around laydown yard and conducts pre-job brief and fills out the JSA.

0810 – Cascade begins constructing the surface completion at MW-27HR. Grout settles to a depth of 9 feet bgs. Cascade mixes three 5-gallon buckets of thick grout mixture and adds grout to 1 foot below ground surface.

0900 – Cascade begins excavating the footprint of the concrete pad and post holes for the bollards to be installed. United Rentals technician onsite to perform maintenance on skid steer.

1030 – United Rentals technician leaves site.

1200 – MW-27HR surface construction is completed with metal enclosure, well pad, and bollards.

1215 – WP gauges total depth (TD) and depth-to-water (DTW) of MW-27H prior to abandonment. TD is 245.5 feet below top of casing (btoc) and DTW is approximated at 236 feet btoc due to inconsistent readings from water level meter.

1310 – Cascade mobilizes skid steer to MW-27H and begins well abandonment process.

1345 – Bentonite chips are added to MW-27H to a depth of 233 feet bgs and surface completion and bollards are removed using a skid steer.

1415 – MW-27H surface completion is removed. The riser pipe breaks at a threaded joint approximately 2 feet bgs, which requires capping with an expanding well plug.

1430 - 1500 – Incident weather stand down: thunderstorm within 10 miles of the work area.

1515 – WP gauges TD of MW-37H to be 293.6 feet btoc and DTW to be approximately 151.4 feet btoc.

1600 -- Cascade begins removing the bollards, well pad, and enclosure from MW-37H.

1645 -- Field crew exits the site through the main construction gate.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>[Signature]</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (2)	19.5	2	NA	21.5
Stantec Field inspector (1)	9.75	1.25	0.5	11.5
Total				33

Safety/Environmental: Practice safe driving.

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	--	--	--	--	191.42	--	NA
GS-AP-MW-09R	--	--	--	--	160	--	NA
GS-AP-MW-10R	--	--	--	--	225	--	NA
GS-AP-MW-11R	<i>ongoing</i>	--	--	--	226	160	NA
GS-AP-MW-13R	Ongoing	--	--	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review



Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Saturday, 7/10/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-11R (MW-11R)

Look Ahead:

Perform sonic drilling and air hammering at boring GS-AP-MW-10R (MW-10R)

Conditions:

Weather: Partly cloudy 76° F (AM) - 90° F (PM), brief shower in the PM

Access Issues: The access road to MW-37HR must be completed before drilling commences.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) onsite.

0715 – Field crew arrives at the work area around laydown yard and conducts pre-job brief and fills out the JSA.

0730 – Cascade begins well installation process at MW-11R.

0935 – The bentonite seal of MW-11R is added above the sand pack and the four-hour hydration period begins.

0945 – Stained gravel is observed beneath the skid steer. After further observation the staining is from leaked diesel fuel. The impacted area geometry is 2 feet by 4 feet, and the gravel is excavated and contained for disposal. The skid steer is parked on containment plastic with oil sorbent pads.

1010 – Ongoing leaking is observed from the skid steer undercarriage and United Rentals is contacted to request delivery of a replacement skid steer.

1100 – Cascade begins rig breakdown and mobilization to well MW-13R for grouting.

1130 – Cascade begins grouting MW-13R. The grout density is not measured due to absence of mud balance. WP contacts Greg Budd and is granted permission to proceed without a mud balance. Cascade is instructed to mix the grout according to manufacturer's recommendations.

1305 – The annulus of MW-13R is grouted, and the 7-inch steel casing is removed from the boring and decontaminated. Annular seal of the boring requires approximately 220 gallons of grout. Cascade begins breaking down the rig in preparation of grouting MW-11R.

1530 – The equipment transporter arrives onsite to pick-up the skid steer. SM escorts the driver to the lay-down yard.

1550 – Annular seal grouting of MW-11R is complete, and the 7-inch steel casing is extracted from the boring and decontaminated. Grout quantity is approximately 190 gallons. Cascade begins breaking down the work area.

1610 – SM escorts the equipment transporter to the security gate. The skid steer is offsite.

1615 – Inclement weather moves in the area and the field crew stands down for the day.

1630 – Field crew exits the site through the main construction gate.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	28.5	3	NA	31.5
Stantec Field inspector (1)	9.5	1	0.5	11
Total	38	4	0.5	42.5

Safety/Environmental: Practice safe driving.

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	--	--	--	--	191.42	--	NA
GS-AP-MW-09R	--	--	--	--	160	--	NA
GS-AP-MW-10R	--	--	--	--	225	--	NA
GS-AP-MW-11R	Installed	--	Pending	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pending	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.



Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Sunday, 7/11/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-10R (MW-10R)

Look Ahead:

Resume air hammer drilling at boring GS-AP-MW-10R (MW-10R)

Conditions:

Weather: Partly cloudy 76° F (AM) with drizzle - 90° F (PM) with thunderstorm.

Access Issues: The access road to MW-37HR must be completed before drilling commences.

Daily Activities:

0700 – Walker Padgett (WP-Stantec) arrives onsite, Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) onsite.

0715 – Field crew arrives at the work area around laydown yard and conducts pre-job brief and fills out the JSA.

0730 – Cascade begins breaking down the rig from MW-11R and relocating to MW-10R.

0920 – Drilling commences at boring MW-10R from ground surface using 4-inch x 6-inch rotary sonic drilling technique.

1045 – The rotary sonic termination depth of 30 feet bgs is reached in MW-10R. The boring is over-drilled with 7-inch casing prior to converting the rig over to air hammer drilling technique. WP transfers soil and rock core to core boxes.

1234 – Cascade begins the first air hammer run from 30 to 40 feet bgs.

1340 – Cascade performs maintenance on the air compressor before finishing the run from 60 feet to 70 feet bgs.

1554 – Drilling resumes at boring MW-10R.

1615 – Inclement weather moves in the area and the field crew stands down for the day.

1630 – Field crew exits the site through the main construction gate.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Shawn McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	28.5	3	NA	31.5
Stantec Field inspector (1)	9.5	1	0.5	11
Total	38	4	0.5	42.5

Safety/Environmental: Be alert to signs of heat stress and remain hydrated.

Comments: The air compressor used for air hammering is showing error codes in response to over-heating. DW is in communication about troubleshooting and scheduling maintenance.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	--	--	--	--	191.42	--	NA
GS-AP-MW-09R	--	--	--	--	160	--	NA
GS-AP-MW-10R	Ongoing	--	--	--	225	--	NA
GS-AP-MW-11R	Installed	--	Pending	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pending	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Monday, 7/12/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Current Work Location:

GS-AP-MW-10R (MW-10R)

Look Ahead:

Gauge DTW in MW-10R, break down drill rig and mobilize to new boring location.

Conditions:

Weather: Cloudy, rainy 76° F (AM) - 88° F (PM) with thunderstorm.

Access issues: The access road to MW-37HR must be completed before drilling commences. Southern Company civil construction refused SM's request to complete access road rehabilitation by adding gravel.

Daily Activities:

0700 – Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) arrive onsite.

0710 – Walker Padgett (WP-Stantec) arrives onsite. Field crew conducts pre-job brief and fills out the JSA.

0730 – DW schedules Sunbelt Rentals to replace the air compressor to resume drilling. Cascade disconnects the air compressor and prepares it for pick-up.

0900 - 0930 – Sunbelt Rentals arrives onsite and delivers a replacement air compressor.

0940 – Cascade resumes air hammer drilling of boring MW-10R.

1220 – After reaching a depth of 180 feet bgs, Cascade purges the boring of water and removes drill rods and the air hammer to allow natural recharge to be gauged.

1352 – WP unable to get consistent water level readings from the water level meter and therefore unable to measure recharge. WP instructs DW to lower the rods and hammer into the boring to perform an air lift and visually assess volume of water produced since the clean-out run.

1445 – WP discusses the results of the air lift with Greg Dyer. The decision is made to resume drilling.

1525 – Inclement weather moves in the area and the field crew issues stop work.

1620 – Drilling resumes in boring MW-10R.

1700 – Drilling operations cease at a depth of 220 feet bgs. WP instructs Cascade to wash the boring, purge the water, and remove the rods and air hammer to allow natural re-charge.

1745 – Field crew exits the site through the main construction gate.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	32.25	3	NA	35.25
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42.75	4	1	47.75

Safety/Environmental: Be alert to signs of heat stress and remain hydrated

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	--	--	--	--	191.42	--	NA
GS-AP-MW-09R	--	--	--	--	160	--	NA
GS-AP-MW-10R	Ongoing	--	--	--	225	--	NA
GS-AP-MW-11R	Installed	--	Pending	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pending	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

*** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Tuesday, 7/13/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-9R (MW-9R)

Look Ahead:

Begin air hammer drilling of MW-9R before end-of-shift de-mobilization.

Conditions:

Weather: Cloudy, rainy 76° F (AM) - 88° F (PM) with strong thunderstorm.

Access issues: Access issues to GS-AP-MW-37HR have been resolved.

Daily Activities:

0700 – Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) arrive onsite. Walker Pughett (WP- Stantec) onsite.

0715 – The Field crew conducts pre-job brief and fills out the JSA.

0730 – SM escorts a skid steer delivery driver to the lay-down yard. WP gauges DTW in MW-10R. Water is encountered at 149.5 feet bgs.

0800 – WP discusses the status of boring MW-10R with Greg Dyer and the decision is made to terminate the boring at 220 feet bgs. Cascade begins breaking down the rig before mobilizing to MW-9R.

0930 - 1030 – Cascade on standby while plant construction sources a machine to remove the steel plate from the MW-9R work area. Cascade begins setting up the rig on boring MW-10R after the plate is removed.

1210 – Cascade commences drilling on MW-9R using 4" x 6" sonic drill technique.

1300 – A freight courier delivers a pallet of grout to the lay-down yard. Cascade unloads the delivery using the skid steer.

1400 – Cascade reached a depth of 30 feet in boring MW-9R and begins over-drilling with 7" casing.

1435 – 7" drill casing is installed to 30 feet bgs. Inclement weather moves in the area and the field crew issues stop work.

1610 – Stop work is lifted. Cascade resumes converting the rig to perform air hammer drilling.

1735 – Field crew exits the work area for the day.

1745 – Field crew exits the site through the main construction gate.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shannon McDonald
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	32.25	3	NA	35.25
Stantec Field inspector (1)	10.75	1	0.5	12.25
Total	43	4	0.5	47.5

Safety/Environmental: be alert to signs of heat stress and remain hydrated

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	--	--	--	--	191.42	--	NA
GS-AP-MW-09R	Ongoing	--	--	--	160	--	NA
GS-AP-MW-10R	Ongoing	--	--	--	225	--	NA
GS-AP-MW-11R	Installed	--	Pending	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pending	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

*** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Monday, 7/19/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

Equipment is in the lay-down yard. Crew will mobilize to new boring location on 7/20/2021.

Look Ahead:

-Backfill boring GS-AP-MW-9R (MW-9R) from 140 feet bgs to 120 feet bgs with bentonite chips prior to geophysical assessment. Golder to visit the site 7/20/2021 to perform geophysical assessment of MW-10R and MW-9R, in that order. MW-9R needs to be pumped during geophysical logging.

-Mobilize/drill GS-AP-MW-5R (MW-5R).

Conditions:

Weather: Partly cloudy 77° F (AM) - 85° F (PM)

Access issues: None.

Daily Activities:

1300 – Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), and Tyson Williams (TW-Cascade) arrive onsite. (Weather stand-down is from 1300-1400 hours.)

1330 – Josh Massey (JM-Stantec) meets SM at Rattlesnake Lake gate 1, checks in at security office, updates security clearance and obtains gate access badge.

1400 – JM conducts pre-job brief at lay-down area once weather stand-down is over. JSA is complete.


1430 – SM leaves to meet Sunbelt driver at security gate 1.

1515 – SM escorts Sunbelt driver to lay-down area to exchange air compressors.

1545 – SM, DW and JM go to MW-5R. Boring location is slightly offset due to conflict with septic drain field from security office at gate 1.

1630 – Nearby lightning forces stand-down. SM ends shift. Crew exits the lay-down yard.

1645 – Field crew and Sunbelt driver exit the site through Rattlesnake Lake gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	 7/20/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	11.25	18	NA	29.25
Stantec Field inspector (1)	3.25	3.5	1	7.75
Total	14.5	21.5	1	37.0

Safety/Environmental: Be alert to signs of heat stress and remain hydrated

Comments:**Attachment 1: Well Status**

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	--	--	--	--	191.42	--	NA
GS-AP-MW-09R	Pending geophysics	--	--	--	160	140	NA
GS-AP-MW-10R	Pending geophysics	--	--	--	225	220	NA
GS-AP-MW-11R	Installed	--	Pending	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pending	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

*** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

1528 – Bollard installation is complete at MW-13R. JM calls Greg Dyer (GD-SCS) to confirm depth to set screen at MW-5R. Cascade field crew, JM and SM mobilize to lay-down area to collect materials to install MW-5R.

1600 – Installation of MW-5R begins.

1712 – MW-5R bentonite seal installation is complete. 4-hour hydration period begins.

- Hole plug bentonite chip backfill from 185.4 feet bgs to 176.8 feet bgs
- 10.0-foot screen set from 175 feet bgs to 165 feet bgs
- 15.0 feet sand pack length
- 4.1 feet bentonite seal length
- 2 bags of Hole Plug backfill chips
- 4.5 bags (50 lbs) of sand
- 1 bucket of bentonite pellets

Post-job JSA

1715 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (1)	10.25	1	1	12.25
Total	41	4	1	46.0

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: None

Attachment 1: Well Status (next page)

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 7/20/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-5R (MW-5R)

Look Ahead:

Continue air drilling MW-5R

Conditions:

Weather: Rain overnight, partly cloudy 75° F (AM) - 84° F (PM)

Access issues: None.

Daily Activities:

0700 – Josh Massey (JM-Stantec), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite. Golder is onsite to perform geophysical assessment of MW-10R and MW-9R.

0715 – Field crew arrives at the work area around laydown yard, conducts pre-job brief and fills out the JSA.

0800 – Crew mobilizes to MW-9R. Boring is backfilled with bentonite pellets from 140 feet bgs to 120.7 feet bgs. Mobilization to MW-5R proceeds upon completing backfill task at MW-9R.

1015 – Cascade begins sonic drilling boring MW-5R. SM leaves site to purchase a water tote for the geophysics crew.

1325 – Sonic drilling is complete at 30 feet bgs. 7-inch outer casing set to 30 feet bgs. DW leaves to deliver water to Golder at MW-9R.

1417 – JM collects core boxes from lay-down area. Soil and rock sonic core samples are transferred to core boxes. DW returns to MW-5R. Cascade switches from sonic coring setup to air hammer setup.

1552 – Cascade begins air drilling at 30 feet bgs.

1706 – Drilling is suspended at 80 feet bgs.

1715 – Field crew conducts post-job brief and fills out the JSA.

1730 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42	4	1	47.0

Safety/Environmental: Use spotter when backing up in tight areas in and around lay-down area

Comments: MW-5R was moved 50 feet from its original location to avoid conflict with septic drain field and overhead powerlines.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Ongoing	--	--	--	191.42	--	NA
GS-AP-MW-09R	Pending geophysics	--	--	--	160	140	NA
GS-AP-MW-10R	Pending geophysics	--	--	--	225	220	NA
GS-AP-MW-11R	Installed	--	Pending	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pending	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 7/21/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-5R (MW-5R)

Look Ahead:

Install and grout MW-5R, grout MW-10R

Conditions:

Weather: Sunny to partly cloudy, 74° F (AM) - 87° F (PM)

Access issues: None.

Daily Activities:

0700 – Josh Massey (JM-Stantec), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at MW-5R. Golder is onsite to perform geophysical assessment of MW-9R and MW-5R.

0715 – Field crew conducts pre-job brief and fills out the JSA.

0800 – Cascade resumes air drilling boring MW-5R from 80 feet bgs.

1100 – Total depth of drilling is 185 feet bgs. Cascade purges the boring of water.

1117 – JM calls Greg Dyer (GD-SCS) to discuss field data and confirm total depth of 185 feet bgs at MW-5R.

1130 – Cascade removes drill rods and the air hammer before gauging water level.

1215 – JM gauges water level at MW-5R. Depth to groundwater is 113.6 feet bgs.

1300 – Golder arrives at MW-5R to perform geophysical assessment of boring. Crew subsequently departs MW-5R to go to lay-down area and collect materials for installing MW-10R.

1400 – Crew arrives at MW-10R and begins installation of MW-10R (see MW-10R installation log under separate cover for further details).

1610 – Top of bentonite seal is set at 191.3 feet bgs. Crew leaves MW-10R.

1630 – Crew arrives at MW-5R. Golder continues performing geophysical assessment of boring while Cascade pumps water into tote. JM conducts post-job JSA.

1700 – Field crew exits the site through Rattlesnake Lake Gate 1. SM and Golder remain onsite.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shaunald McDonald 7/22/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (1)	10	1	1	12
Total	40	4	1	45.0

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: MW-5R was moved 50 feet from its original location to avoid conflict with septic drain field and overhead powerlines.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Pending geophysics	--	--	--	191.42	185	NA
GS-AP-MW-09R	Pending geophysics	--	--	--	160	140	NA
GS-AP-MW-10R	Ongoing	--	--	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pending	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pending	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 7/22/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 3/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-5R (MW-5R)

Look Ahead:

Grout MW-5R, grout MW-9R, grout MW-10R, grout MW-14R (?), mobilize/drill to GS-AP-MW-37HR (MW-37HR)

Conditions:

Weather: Partly cloudy, 75° F (AM) - 91° F (PM)

Access issues: None.

Daily Activities:

0700 – Josh Massey (JM-Stantec), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at MW-5R. Davis Crocker (DC-Golder) is onsite to perform geophysical assessment of MW-5R.

0715 – Field crew conducts pre-job brief and fills out the JSA.

0729 – DC gauges water level at MW-5R for JM. Depth to groundwater is 42.87 feet below top of casing.

0745 – JM calls Greg Dyer (GD-SCS) to confirm depth to set screen at MW-9R.

0815 – Cascade field crew, JM and SM mobilize to lay-down area to collect materials to install MW-9R.

0840 – Installation of MW-9R begins.

1004 – MW-9R bentonite seal installation is complete. 4-hour hydration period begins.

- Hole plug bentonite chip backfill from 120 feet bgs to 99 feet bgs
- 10.0-foot screen set from 96 to 86 feet bgs
- 15.9 feet sand pack length
- 3.6 feet bentonite seal length
- 4.5 bags of Hole Plug backfill chips (9 total)
- 5 bags (50 lbs) of sand
- 1 bucket of bentonite pellets

TW leaves to refill water tank; JM, NS, DW and SM mobilize to MW-11R to build bollards and pad.

1030 – TW returns. MW-11R is topped with grout to 2 feet bgs. Bollard and pad installation begins.

1400 – Bollard installation is complete at MW-11R. Field crew mobilizes to MW-13R to build pad and bollards.

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	Ongoing	--	--	--	248.42	--	NA
GS-AP-MW-05R	Ongoing	--	--	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Ongoing	--	--	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Bollards only	135-145 ***	226	160	NA
GS-AP-MW-13R	Ongoing	--	--	155.0-165.0	222	180	NA
GS-AP-MW-14R	--	NA	NA	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	--	--	NA	NA	NA	Pending
GS-AP-MW-18R	--	NA	NA	NA	150-197	--	NA
GS-AP-MW-18V*	--	--	--	NA	NA	NA	Pending
GS-AP-MW-18VR	--	NA	NA	NA	NA	NA	NA
GS-AP-PZ-18*	--	NA	NA	NA	215	--	NA
GS-AP-PZ-18R	--	--	--	NA	NA	NA	Pending
GS-AP-MW-27H*	--	NA	NA	NA	212	--	NA
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	NA	NA	NA	In Progress
GS-AP-MW-37H*	--	NA	NA	267.0-277.0	335.91	300	NA
GS-AP-MW-37HR	--	--	--	NA	NA	NA	In Progress
					251	--	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

*** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 7/23/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 5/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

MW-10R

Look Ahead:

Finish grouting MW-10R, grout MW-14R, mobilize/drill to GS-AP-MW-37HR (MW-37HR)

Conditions:

Weather: Partly cloudy, 75° F (AM); cloudy with rain and thunder, 91° F (PM)

Access issues: None.

Daily Activities:

0700 – Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at MW-5R.

0715 – Josh Massey (JM-Stantec) arrives onsite. Field crew conducts pre-job brief and fills out the JSA.

0737 – DW, NS and TW haul air compressor to lay-down area, collect materials to grout MW-5R, set up mixer and set up grout pump.

0900 – Grout placement via tremie pipe at MW-5R begins.

1018 – Grout placement is complete. MW-5R installation is complete.

- 14 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 280 gallons of water
- 7-inch surface casing is removed

Mobilization to MW-9R begins. JM and SM load core boxes for transport to lay-down area storage.

1130 – Rig is stuck. RB Jergens works to remove rig from muddy spot.

1153 – Rig is freed from mud and is mobilized to MW-9R.

1245 – Grout placement via tremie pipe at MW-9R begins.

1320 – Grout placement is complete. MW-9R installation is complete.

- 6 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 120 gallons of water
- 7-inch surface casing is removed

Mobilization to MW-10R begins.

1445 – Grout placement via tremie pipe at MW-10R begins.

1530 – Lightning occurs within 10 miles. Weather stand-down begins due to inclement weather.

1700 – Weather stand-down ends. SM and JM stage MW-5R core boxes in lay-down area. DW, NS, and TW suspend grout placement at MW-10R.

1715 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i> 7/26/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (1)	10.0	1	1	12.0
Total	40.75	4	1	45.75

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	--	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	--	86.0-96.0	160	140	NA
GS-AP-MW-10R	Ongoing	--	--	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Bollards only	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Bollards only	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	--	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Saturday, 7/24/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 6/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-37HR (MW-37HR)

Look Ahead:

Start air drilling MW-37HR; grout and abandon MW-37H

Conditions:

Weather: Sunny to partly cloudy, 75° F - 92° F

Access issues: -MW-14 area is muddy. On-site general contractor (RB Jergens) is not available on weekends. Grout placement is postponed, avoiding stuck vehicles without assistance nearby.

-MW-37HR road is only half complete, yet accessible.

Daily Activities:

0700 – Josh Massey (JM-Stantec), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at MW-10R.

0715 – Field crew conducts pre-job brief and fills out the JSA.

0730 – DW, NS and TW haul air compressor to lay-down area, collect materials to grout MW-10R, set up mixer and set up grout pump.

0730 – Grout placement via tremie pipe at MW-10R resumes.

0845 – Grout placement is complete. MW-10R installation is complete.

- 16 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 320 gallons of water
- 7-inch surface casing is removed

Mobilization to MW-37HR begins. JM collects empty core boxes from lay-down area storage.

1108 – Cascade begins 4-inch by 6-inch sonic drilling at MW-37HR.

1334 – Rotary sonic termination depth of 40 feet bgs is reached in MW-37HR. Boring MW-37HR is over-drilled with 7-inch casing prior to converting the rig to air hammer setup.

1430 – Cascade departs to lay-down area to haul air compressor to MW-37HR. JM transfers soil and rock core to core boxes.

1530 – Cascade returns to MW-37HR with air compressor from lay-down area. Conversion to air from sonic setup begins.

1615 – NS and TW retrieve skid-steer from lay-down area. DW continues to work on air drilling setup at

rig.

1645 – NS and TW return with skid-steer from lay-down area. Air drilling setup is ready.

1700 – DW refuels rig.

1715 – Post-job meeting.

1730 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i> 7/26/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42.0	4	1	47.0

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	--	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	--	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	--	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Bollards only	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Bollards only	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Ongoing	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Sunday, 7/25/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 6/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-37HR (MW-37HR)

Look Ahead:

Resume air drilling MW-37HR; grout and abandon MW-37H

Conditions:

Weather: Sunny to partly cloudy, 78° F - 89° F

Access issues: -MW-14R area is muddy. On-site general contractor (RB Jergens) is not available on weekends. Grout placement is postponed, avoiding stuck vehicles without assistance nearby.

-MW-37HR road is only half complete, yet accessible.

Daily Activities:

0700 – Josh Massey (JM-Stantec), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at MW-10R.

0715 – Field crew conducts pre-job brief and fills out the JSA.

0730 – DW refuels air compressor.

0800 – Cascade begins air rotary drilling from 40 feet bgs at MW-37HR.

1145 – Air compressor loses pressure and starts to idle during operation. DW suspends air rotary drilling at 140 feet bgs to request technician assistance from Sunbelt.

1347 – Sunbelt does not return DW's call. Crew departs MW-37HR to build concrete pad at MW-11R. TW goes to collect water. DW leaves site to purchase PVC riser couplings in Jasper, Alabama.

1430 – NS and TW begin installing pad for MW-11R.

1530 – Pad installation complete at MW-11R. Crew mobilizes to MW-13R to install concrete pad. DW returns to site.

1600 – DW, NS and TW begin installing pad for MW-13R.

1640 – Pad installation complete at MW-13R. Post-job meeting is conducted.

1700 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS: S. McDonald Date/Signature: Shaunel H McDonald

7/16/21

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (1)	10	1	1	12
Total	40	4	1	45

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	--	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	--	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	--	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Ongoing	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 7/26/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 6/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-37HR (MW-37HR)

Look Ahead:

Resume air drilling MW-37HR; grout and abandon MW-37H

Conditions:

Weather: Sunny to partly cloudy, 78° F - 91° F

Access issues: MW-14R area is muddy.

Daily Activities:

0700 – Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at lay-down area.

0715 – Josh Massey (JM-Stantec) arrives at Rattlesnake Lake Gate 1. Field crew conducts safety meeting and fills out the JSA.

0730 – JM conducts pre-job brief and fills out the JSA at lay-down area. Field crew collects supplies to build bollards and pads.

0800 – Field crew mobilizes to MW-5R to construct well pad bollards.

0815 – SCS requests random drug screening. DW and NS leave site.

0830 – Sunbelt technician arrives onsite at Rattlesnake Lake Gate 1.

0930 – DW and NS return to site from drug screen. Field crew mobilizes to MW-37HR with Sunbelt technician to repair air compressor.

1106 – NS and TW leave to get skid-steer for effluent hose. ^{Jeremy J} Scott Pate (JP-SCS CFS) arrives at MW-37HR.

1130 – NS and TW return with skid-steer and affix effluent hose to forks of skid-steer. Sunbelt technician and DW test air compressor at 140 feet bgs.

1230 – 1310 – Sunbelt technician unable to repair air compressor. New compressor is requested by Sunbelt for delivery to site. Sunbelt technician leaves MW-37HR. Field crew decides to return to lay-down area to collect supplies for building bollards and well pads.

1330 – Bollard placement begins at MW-5R.

1430 – Bollard installation complete at MW-5R. Crew mobilizes to MW-9R to install bollards. JP leaves.

1632 – Bollard installation complete at MW-9R. Lightning occurs within 10 miles of site. Weather stand-down begins. Post-job meeting is conducted.

1700 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Alaune McDonald</i> 7/27/21
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Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field Inspector (1)	9.75	1	1	11.75
Total	39.75	4	1	44.75

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Bollards only	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Bollards only	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Pending	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Ongoing	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 7/27/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 6/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-37HR (MW-37HR)

Look Ahead:

Resume air drilling MW-37HR; grout and abandon MW-37H

Conditions:

Weather: Partly cloudy (am) with thunderstorms (pm), 73° F - 90° F

Access issues: MW-14R area is muddy.

Daily Activities:

0700 – Josh Massey (JM-Stantec), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at lay-down area.

0715 – Field crew conducts safety meeting and fills out the JSA. Field crew collects supplies to build bollards and pads.

0730 – Bollard placement begins at MW-10R.

0900 – Bollard installation complete at MW-10R. Field crew mobilizes to MW-5R to construct well pad bollards.

0921 – TW goes to collect water. Field crew mobilizes to MW-5R to place concrete in bollards.

0950 – Bollard and pad work resumes at MW-5R. TW returns with water.

1043 – Bollards are set at MW-5R. Field crew mobilizes to MW-9R to place concrete in bollards.

1100 – Bollard and pad work resumes at MW-9R.

1130 – Bollards are set at MW-9R. Field crew mobilizes to lay-down yard to collect additional pad installation supplies. Skid-steer is in use by Golder. DW and SM leave lay-down yard to go to gate to wait for Sunbelt air compressor delivery. TW, NS and JM wait at lay-down yard.

1226 – Sunbelt exchanges air compressors at lay-down yard.

1300 – Field crew mobilizes to MW-37HR with new air compressor.

1330 – Air hammer drilling resumes at MW-37HR from 140 feet bgs.

1335 – Lightning occurs within 10 miles of site. Weather stand-down begins.

1405 – Weather stand-down ends. Air hammer drilling resumes at MW-37HR from ~148 feet bgs.

1417 – Lightning occurs within 10 miles of site. Weather stand-down begins.

1509 – Weather stand-down ends. Air hammer drilling resumes at MW-37HR from 160 feet bgs.

1600 – Lightning occurs within 10 miles of site. Weather stand-down begins. Post-job meeting is conducted.
 1635 – SM ends shift due to inclement weather. Drilling is suspended at 180 feet bgs.
 1700 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S McDonald	Date/Signature:	<i>S. McDonald</i> 8/3/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (1)	10	1	1	12
Total	40	4	1	45

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: Sunbelt's estimated time of compressor delivery was 0830-1000 hours. Actual arrival time was 1226 hours.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Bollards only	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Bollards only	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Ongoing	--	--	--	251	--	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 7/28/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 6/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-37HR (MW-37HR)

Look Ahead:

Install MW-37HR; grout and abandon MW-37H

Conditions:

Weather: Fair, 73° F - 92° F

Access issues: MW-14R area is muddy.

Daily Activities:

0700 – Josh Massey (JM-Stantec), Shannon McDonald (SM-SCS CFS), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade) and Tyson Williams (TW-Cascade) arrive onsite at lay-down area.

0715 – Field crew conducts safety meeting and fills out the JSA.

0745 – Field crew departs lay-down area for MW-37HR.

0810 – Air hammer drilling resumes at MW-37HR from depth of 180 feet bgs.

1000 – Cascade stops drilling at 250 feet bgs. JM calls Greg Dyer (GD-SCS) to confirm total depth of MW-37HR.

1015 – GD confirms total depth of MW-37HR at 250 feet bgs. Cascade begins pulling drilling rods from MW-37HR. Davis Crocker (DC-Golder) arrives onsite to conduct geophysical logging at MW-37HR.

1050 – JM gauges water level at MW-37HR. Groundwater level at MW-37HR is 243.9 feet bgs and rising.

1106 – Cascade crew goes to build pads at MW-5R and MW-9R. JM and SM load core boxes for transport to lay-down storage area. JM cleans up work area near MW-37HR. SM and JM depart for lay-down area.

1150 – SM leaves lay-down area to meet Cascade crew. JM leaves lay-down area to gauge groundwater levels at MW-5R, MW-9R and MW-10R. Table 1 lists the water levels ~~and depths~~ for MW-5R, MW-9R and MW-10R:

Well ID	Time	Depth to GW (ft from top of casing)
GS-AP-MW-5R	1243	142.00
GS-AP-MW-9R	1212	59.33
GS-AP-MW-10R	1200	143.69

Table 1: Groundwater Levels for Wells Installed During July 19-28, 2021 Shift

1243 – JM leaves MW-5R to meet SM at MW-37HR.

1315 – Post-job meeting is conducted. Field crew leaves site. SM stays at MW-37HR with DC.

1330 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Shannon McDonald</i> 8/3/21
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Hours (Table 2):

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	19.5	18	NA	37.5
Stantec Field inspector (1)	6.5	4	1	11.5
Total	26	22	1	49

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status (next page)

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Pending geophysics	--	--	--	251	250**	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

*** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
 PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Monday, 8/2/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 6/12
 Monitoring Well Abandonments Completed / Proposed = 0/6
 Monitoring Well Preliminary Development Completed Proposed 0/12
 Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-37HR (MW-37HR)

Look Ahead:

Install MW-37HR; grout and abandon MW-37H

Conditions:

Weather: Cloudy with intermittent rain showers, 74° F - 82° F
Access Issues: MW-14R area is muddy.

Daily Activities:

No activities occur onsite for Stantec.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Shawn McDonald</i> 8/4/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	0	18	NA	18
Stantec Field inspector (1)	0	3.5	0.5	4
Total	0	21.5	0.5	22

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: Josh Massey travels from home in Atlanta, Georgia to motel in Jasper, Alabama. Cascade driller does not arrive in time for drug test.

Attachment 1: Well Status (next page)

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Pending geophysics	--	--	--	251	250**	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

*** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 8/3/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 6/12

Monitoring Well Abandonments Completed / Proposed = 0/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-37HR (MW-37HR)

Look Ahead:

Grout MW-37HR; grout/abandon MW-37H and 18-series wells

Conditions:

Weather: Partly cloudy to sunny, 72° F - 86° F

Access issues: MW-14R area is muddy.

Daily Activities:

0700 – Rodney Parr (RP-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive onsite for driller RP to take drug test.

0915 – Josh Massey (JM-Stantec) arrives onsite. NS, TW and SM are already onsite waiting for RP to return from drug test.

1108 – SM and RP arrive at lay-down area. Field crew conducts safety meeting and fills out the JSA. Field crew loads installation supplies for MW-37HR and abandonment supplies for MW-37H.

1202 – Field crew mobilizes to MW-37HR.

1250 – Groundwater level at MW-37HR is gauged at 145.8 feet bgs.

1345 – Cascade crew places pipe downhole to perform air circulation run at bottom of hole to clean borehole.

1411 – Cascade crew performs second air circulation run at bottom of hole. Crew begins pulling pipe from the hole.

1456 – Installation of MW-37HR begins.

1715 – MW-37HR bentonite seal installation is complete. 4-hour hydration period begins.

- Hole plug bentonite chip backfill from 250.8 feet bgs to 244.4 feet bgs (6.4 feet length)
- 10.0-foot screen set from 241 to 231 feet bgs
- 16.3 feet sand pack length
- 3.9 feet bentonite seal length
- 1.5 bags of Hole Plug backfill chips
- 5 bags (50 lbs) of sand
- 1 bucket of bentonite pellets

Post-job meeting and JSA

1745 – JM exits the site through Rattlesnake Lake Gate 1.

1800 – SM and Cascade exit the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shawna McDonald
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	33	3	NA	36
Stantec Field inspector (1)	8.5	1	1	10.5
Total	41.5	4	1	46.5

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: SCS requests abandonment of 18-series wells starting tomorrow due to forthcoming construction activities.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Ongoing	--	--	231.0-241.0	251	250	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 8/4/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 7/12

Monitoring Well Abandonments Completed / Proposed = 1/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

MW-14R

Look Ahead:

Grout annular space above top of bentonite seal in MW-14R; grout/abandon 18-series wells

Conditions:

Weather: Partly cloudy to sunny, 69° F - 86° F

Access issues: None

Daily Activities:

0700 – Josh Massey (JM-Stantec), Rodney Parr (RP-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive onsite.

0715 – Field crew conducts pre-job brief and fills out the JSA.

0756 – Field crew mobilizes to MW-37HR from lay-down area.

0845 – Grout placement via tremie pipe at MW-37HR begins.

1025 – Jeremy Pate (JP-SCS CFS) arrives at MW-37HR.

1106 – Grout placement is complete. MW-37HR installation is complete.

- 14 bags (50 lbs) Baroid Aqua Guard bentonite grout
 - 280 gallons of water
 - 7-inch surface casing is removed
- Crew takes break for lunch.

1145 – Field crew mobilizes to MW-37H to abandon well.

1330 – Groundwater level at MW-37H is gauged at 138.25 feet bgs. Depth to top of bentonite chips (3 bags (50 pounds) of Baroid Hole Plug bentonite chips) placed in well screen interval is 261 feet below ground surface.

1400 – Grout placement via tremie pipe at MW-37H begins. JP leaves site.

1557 – Grout placement at MW-37H is complete to grade.

- 3.5 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 80 gallons of water
- 3.31 feet of PVC stick-up and first 10 feet of PVC riser bgs is removed

Crew mobilizes rig to MW-14R.

1715 – Post-job meeting is conducted.

1730 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Oliver McDonald</i> 8/5/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42	4	1	47

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: SCS requests abandonment of 18-series wells starting tomorrow due to forthcoming construction activities.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 *** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 8/5/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 8/12

Monitoring Well Abandonments Completed / Proposed = 1/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

MW-27H

Look Ahead:

Grout/abandon 18-series wells (GS-AP-MW-18V, GS-AP-MW-18 and GS-AP-PZ-18) and MW-27H

Conditions:

Weather: Partly cloudy to sunny, 72° F - 86° F

Access issues: None

Daily Activities:

0700 – Josh Massey (JM-Stantec), Rodney Parr (RP-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive onsite.

0715 – Field crew conducts pre-job brief and fills out the JSA at lay-down area.

0730 – Field crew mobilizes to MW-14R from lay-down area. TW goes to collect water.

0755 – SM leaves to meet with GPR crew scanning "~~18-series~~ *to new scope*" wells. RP and NS set up rig and box truck.

0832 – TW returns with water while RP and NS continue setting up rig to grout MW-14R.

0855 – Grout placement via tremie pipe at MW-14R begins.

1022 – SM returns to MW-14R.

1045 – Grout placement is complete. MW-14R installation is complete.

- 12 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 240 gallons of water
- 7-inch surface casing is removed

Crew demobilizes from MW-14R to lay-down area. Cascade crew gathers all equipment and collects trash from both MW-14R and MW-37HR before mobilization of the skid-steer and crew to "18-series" wells.

1449 – Field crew arrives at "18-series" wells. NS uses skid-steer to demolish the existing bollards, pads and pro covers at three well locations.

1535 – Cascade crew and SM leave to mobilize rig to "18-series" wells. JM stays at "18-series" wells to measure water levels and well depths. Measurements are as follows in Table 1:

Table 1: Groundwater Levels

Well ID	Time	Depth to GW (ft below top of casing)	*Well Depth (ft below top of casing)	**PVC Stick-up (ft)
GS-AP-MW-18V	1544	118.89	129.00	1.4
GS-AP-MW-18	1552	48.80	91.74	1.76
GS-AP-PZ-18	1601	125.35	187.11	1.8

*- Depths to bottom in MW-18V and MW-18 do not match as-built depths and will be remeasured.

** - Approximate stick-up measurement from ground surface to top PVC after pro cover removal.

1611 – JM discusses change in rig mobilization plan with SM. JM requests to mobilize rig to MW-27H instead of “18-series” location to complete the abandonment in progress at MW-27H. Cascade mobilizes rig to MW-27H.

1715 – Mobilization to MW-27H is complete. Post-job meeting is complete.

1730 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Shawna McDonald</i> 8/11/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42	4	1	47

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: David Wilcox (DW-Cascade) returns as driller tomorrow morning. RP leaves Alabama tomorrow morning.

Attachment 1: Well Status (next page)

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	135-145 ***	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Ongoing	--	--	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	--	NA	NA	NA	NA	NA	Pending
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

*** = Approximate depth of screen. Exact depths to be measured after rig vacates work area.

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 8/6/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 8/12

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

18-series replacement wells

Look Ahead:

Begin drilling 18-series replacement wells (GS-AP-MW-18VR, GS-AP-MW-18R and GS-AP-PZ-18R)

Conditions:

Weather: Mostly cloudy, 74° F - 86° F

Access issues: SM requests removal of concrete barricades on access road to replacement 18-series wells.

Daily Activities:

0700 – Josh Massey (JM-Stantec), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive onsite.

0715 – Field crew conducts pre-job brief and fills out the JSA at lay-down area.

0739 – JM gauges total depth (TD) at MW-11R as 147.24 feet below top of casing (btoc).

0815 – Field crew mobilizes to MW-27H from lay-down area.

1000 – JM measures depth-to-water (DTW) at 226.3 feet below ground surface (bgs); depth to top of bentonite chip backfill (placement on July 9, 2021) is 227 feet bgs.

1015 – Grout placement via tremie pipe at MW-27H begins.

1045 – Grout placement is complete at MW-27H.

- 2 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 40 gallons of water
- Top of PVC riser is approximately 2 feet bgs

Crew begins mobilization to 18-series wells to be abandoned.

1315 – Winch on rig breaks ~~hour~~ and requires repair for approximately half an hour. Mobilization resumes once repair is complete.

1355 – Crew arrives at 18-series wells, DW sets up rig at PZ-18.

1430 – DW measures TD of wells. Depths are consistent with previous measurements by JM on August 5, 2021. JM calls Greg Budd (GB – SCS) to discuss discrepancies in field measurements versus as-built depths (see comments for further information). Cascade begins grout placement with tremie pipe at PZ-18.

1520 – Grout placement is complete at PZ-18.

- 2 bags (50 lbs) Baroid Aqua Guard bentonite grout

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	--	Pending	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	--	--	--	--	150-197	--	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

- 40 gallons of water
- 2-inch PVC riser is cut to about 4 inches bgs and cannot be cut lower below grade due to 7-inch diameter PVC surface casing cast in place with the 2-inch PVC riser.

Cascade mobilizes rig and equipment to MW-18V.

1545 – Grout placement via tremie pipe at MW-18V begins.

1608 – Grout placement is complete at MW-18V.

- 2 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 30 gallons of water
- DW removes the remainder of the 5-foot PVC riser

Cascade places tremie pipe in MW-18 without moving rig.

1615 – Grout placement via tremie pipe at MW-18 begins.

1628 – Grout placement is complete at MW-18.

- 1.25 bags (50 lbs) Baroid Aqua Guard bentonite grout
- 20 gallons of water
- DW removes the remainder of the 5-foot PVC riser

Field crew demobilizes to lay-down area with rig.

1730 – Post-job meeting is complete.

1800 – Field crew exits the site through Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>[Signature]</i> 8/11/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	33	3	NA	36
Stantec Field inspector (1)	11	1	1	13
Total	44	4	1	49

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: No concrete plugs will be cast for abandoned 18-series wells due to proposed construction on site. Difference in 1/30/2019 as-built depth of 137.71 feet btoc at MW-18V and 8/5/2021 field measurement at MW-18V prior to abandonment is 8.71 feet. Difference in 3/29/2016 as-built depth of 98.68 feet btoc at MW-18 and 8/5/2021 field measurement at MW-18 prior to abandonment is 6.94 feet. Difference in 2/25/2016 as-built depth of 183.79 feet btoc at PZ-18 and 8/5/2021 field measurement at MW-18V prior to abandonment is 3.32 feet. Dedicated pumps and tubing were removed from each well prior to field measurements on 8/5/2021.

Attachment 1: Well Status (next page)

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Saturday, 8/7/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 8/12

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-18R18VR (well ID revised per SCS on 8/10/21)

Look Ahead:

Drilling 18-series replacement wells (GS-AP-MW-18VR (MW-18VR), GS-AP-MW-18R (MW-18R) and GS-AP-PZ-18R (PZ-18R))

Conditions:

Weather: Partly cloudy, 74° F - 87° F

Access issues: None

Daily Activities:

0700 – David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive onsite.

0715 – Josh Massey (JM-Stantec) arrives onsite. Field crew conducts pre-job brief and fills out the JSA at lay-down area.

0730 – Field crew mobilizes to MW-37H from lay-down area to resume abandonment from top of grout.

0930 – MW-37H abandonment is complete.

- 1 bag (50 lbs) Sakrete concrete
- Backfill bollard holes and concrete plug with soil to ground surface
- Re-grade ground surface using skid-steer

Field crew mobilizes to MW-27H from lay-down area to resume abandonment from top of grout.

1000 – MW-27H abandonment is complete.

- 1 bag (50 lbs) Sakrete concrete
- Backfill bollard holes and concrete plug with soil to ground surface
- Re-grade ground surface using skid-steer

Field crew mobilizes to abandoned 18-series wells to check for grout settlement and re-grade soil with skid-steer.

1045 – "18-series" well abandonments complete.

- No concrete plugs
- Grout settlement: 10 feet in PZ-18, 2 inches in MW-18V and zero inches in MW-18. Baroid Hole Plug bentonite chips are placed in PZ-18 and MW-18V to ground surface (about one-half bag used for both holes)

- Re-grade ground surface at each former well location using skid-steer
Field crew mobilizes rig and equipment to "18-series" replacement location.

1145 – Rig mobilization to "18-series" location is complete. DW and NS set up rig at MW-18R18VR. TW goes to get water.

1215 – TW returns. JM goes to collect core boxes from lay-down area and badge out from plant.

1245 – JM returns to MW-18R18VR.

1312 – Cascade begins 4-inch by 6-inch sonic drilling at MW-18R18VR.

1415 – DW suspends sonic drilling at 17 feet bgs. Kill switch is shutting down rig inadvertently.

1522 – DW needs to leave site to purchase oil filter and parts for top drive at auto parts store in Gardendale, AL. SM decides to end shift early. Post-job meeting is complete.

1530 – JM exits site. SM and Cascade go to badge out at Rattlesnake Lake Gate 1.

1600 – Cascade and SM leave Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shannon McDonald 8/11/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	27	3	NA	30
Stantec Field inspector (1)	8.25	1	1	10.25
Total	35.25	4	1	40.25

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: Drilling rig requires repair.

Attachment 1: Well Status (next page)

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	--	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	--	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	--	Bollards only	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	--	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	--	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	--	Pending	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Ongoing	--	--	--	150-197	--	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Sunday, 8/8/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 8/12

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-18R18VR (well ID revised per SCS on 8/10/21)

Look Ahead:

Drilling 18-series replacement wells (GS-AP-MW-18VR (MW-18VR), GS-AP-MW-18R (MW-18R) and GS-AP-PZ-18R (PZ-18R))

Conditions:

Weather: Partly cloudy, 71° F - 90° F

Access issues: Concrete barricades at entrance to 18-series replacement wells, steep gravel driveway

Daily Activities:

0700 – Josh Massey (JM-Stantec), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive onsite.

0715 – Field crew conducts pre-job brief and fills out the JSA at entrance to MW-18R18VR.

0749 – SM leaves to request assistance in moving concrete barricades blocking the entrance to MW-18R18VR.

0845 – SM returns to entrance near MW-18R18VR and is accompanied by a lull driver that moves barricades to allow vehicle traffic onsite. DW and NS begin repairing rig. TW leaves to collect water.

0925 – Rig repairs complete. TW returns to site. Cascade resumes 4-inch by 6-inch sonic drilling at 17 feet bgs.

1045 – Sonic drilling is complete to 30 feet bgs at MW-18R18VR. 7-inch outer casing is set at 30 feet bgs. Cascade switches from sonic coring setup to air hammer setup.

1155– Cascade leaves to mobilize air compressor at lay-down area.

1305 – Cascade mobilizes air compressor to the entrance near MW-18R18VR. DW is uncertain if he will be able to finish the mobilization of the air compressor to MW-18R18VR, which is located downhill from entrance on a steep gravel driveway.

1440 – Cascade is unable to complete the mobilization of the air compressor to MW-18R18VR without additional assistance. SM postpones air compressor mobilization until additional help becomes available (see comments). Field crew leaves MW-18R18VR to resume pro cover and pad construction at MW-10R. JM goes to Rattlesnake Lake Gate 1 to badge-in before meeting field crew at MW-10R.

1505 – Field crew resumes construction of the bollards, surface pad and pro cover at MW-10R.

1522 – SM and DW leave to drill weepholes/PVC vents and place pea gravel in the pro covers at wells MW-9R, MW-11R, MW-13R and MW-27R. JM, TW and NS continue pad construction at MW-10R.

1607 – SM and DW return to MW-10R.

1623 – MW-10R surface pad is complete. Field crew mobilizes to MW-14R to begin building bollards.

1704 – Field crew suspends bollard construction at MW-14R and mobilizes to MW-5R.

1715 – SM and DW drill weephole/PVC vent and place pea gravel in the pro cover at MW-5R.

1730 – Post-job meeting is complete. Field crew exits Rattlesnake Lake Gate 1.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Alannah McDonald 8/11/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42.0	4	1	47.0

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: SM to coordinate with SCS site personnel tomorrow morning before moving air compressor down steep gravel driveway to proposed replacement well MW-18R18VR.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	--	Pending	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Ongoing	--	--	--	150-197	--	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 8/9/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 8/12

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-18R18VR (well ID revised per SCS on 8/10/21)

Look Ahead:

Drilling 18-series replacement wells (GS-AP-MW-18R (MW-18R) and GS-AP-PZ-18R (PZ-18R))

Conditions:

Weather: Partly cloudy, 77° F - 93° F

Access issues: Concrete barricades at entrance to 18-series replacement wells. Gate 3 will be used for entry and exit.

Daily Activities:

0700 – Josh Massey (JM-Stantec), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive onsite.

0715 – Field crew conducts pre-job brief and fills out the JSA at lay-down area.

0800 – Field crew leaves lay-down area and mobilizes to air compressor at entrance to MW-18R18VR.

0845 – Cascade decides to move ahead with air compressor mobilization, proposing to use tow straps attached to the skid-steer and truck towing the air compressor. DW leaves site to go and purchase tow straps in Jasper, Alabama. SM and JM mobilize to MW-14R to resume bollard/pad construction. TW and NS leave to collect water before mobilizing to MW-14R.

0930 – NS and TW begin bollard construction at MW-14R.

1018 – Bollard construction is complete at MW-14R. SM, JM, TW, and NS mobilize to entrance to MW-18R18VR.

1100 – DW returns to entrance at MW-18R18VR. Cascade begins mobilizing air compressor to area near MW-18R. Skid-steer is tethered to truck.

1145 – Air compressor mobilization to MW-18R18VR is complete. Switch to air hammer setup from sonic drilling setup resumes.

1223 – Air hammer drilling begins at MW-18R18VR from depth of 30 feet bgs.

1700 – Air hammer drilling stops at depth of 220 feet bgs at MW-18R18VR.

1715 – Post-job meeting is complete.

1730 – Field crew exits Gate 3.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42.0	4	1	47.0

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	--	Bollards only	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Pending geophysics	--	--	--	150-197	220**	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	--	--	--	--	215	--	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
 PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 8/10/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 8/12

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-~~48R~~18VR (well ID revised per SCS on 8/10/21)

Look Ahead:

Drilling 18-series replacement wells (GS-AP-MW-18VR (MW-18VR), GS-AP-MW-18R (MW-18R) and GS-AP-PZ-18R (PZ-18R))

Conditions:

Weather: Partly cloudy, 76° F - 93° F

Access issues: Concrete barricades at entrance to 18-series replacement wells, steep gravel driveway

Daily Activities:

0700 – Josh Massey (JM-Stantec), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive at Gate 3.

0715 – Field crew conducts pre-job brief and fills out the JSA.

0736 – JM calls Greg Dyer (GD- SCS) to discuss lithology at MW-18VR, confirm total depth (TD) of MW-18VR and depth change to 60 feet bgs at MW-18R.

0809 – Cascade pulls pipe from MW-18VR.

0848 – JM measures groundwater level at 45.7 feet bgs in MW-18VR. Mobilization to MW-18R begins. TW leaves to get shovels at MW-14R.

0945 –JM calls GD about proposed well MW-18R. TD changes to 60 feet bgs at MW-18R. TW returns.

1019 – Cascade begins 4-inch by 6-inch sonic drilling at MW-18R.

1255 – Sonic drilling is complete to 57 feet bgs at MW-18R.

1305 – JM and SM measure groundwater levels as follows:

Table 1: Groundwater Levels at MW-18R

Time	DTW MW-18R (ft bgs)	Measurement By
1430	56.2	JM
1500	47.7	JM
1537	42.4	SM
1607	40.4	SM
1627	40.5	SM

1645 – Post-job meeting is complete.

1700 – Field crew exits Gate 3.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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8/13/21

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.0	3	NA	33
Stantec Field inspector (1)	10.0	1	1	12
Total	40.0	4	1	45.0

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	--	Bollards only	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Ongoing	--	--	--	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW- 18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 8/11/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 8/12

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-18R

Look Ahead:

Drilling replacement well GS-AP-PZ-18R (PZ-18R)

Conditions:

Weather: Fair (AM) to cloudy with rain and thunder (PM), 75° F - 90° F

Access issues: Concrete barricades at entrance to 18-series replacement wells, steep gravel driveway

Daily Activities:

0700 – Josh Massey (JM-Stantec), David Wilcox (DW-Cascade), Nate Smith (NS-Cascade), Tyson Williams (TW-Cascade) and Shannon McDonald (SM-SCS CFS) arrive at Gate 3.

0715 – Field crew conducts pre-job brief and fills out the JSA.

0725 – JM measures groundwater level at 42.28 feet bgs in MW-18R. JM subsequently boxes core samples in core boxes. TW and NS leave to resume pad construction at MW-14R.

0835 – SM and DW leave Gate 3 to meet NS and TW at MW-14R. JM continues boxing core.

1005 – JM calls Greg Dyer (GD-SCS) about proposed well MW-18R to confirm screened interval from 53 feet bgs to 43 feet bgs. Cascade crew collects field supplies from lay-down area with SM.

1115 – Field crew returns to MW-18R along with SM and Jeremy Pate (JP-SCS). Installation of MW-18R begins.

1200 – Bentonite annular seal installation is complete at MW-18R. 4-hour hydration period begins.

- Hole plug bentonite chip backfill from 57.4 feet bgs to 54.1 feet bgs (3.3 feet length)
- 10.0-foot screen set from 53 to 43 feet bgs; bottom of sump is at 53.4 feet bgs
- 13.4 feet sand pack length from 54.1 feet bgs to top of pack at 40.7 feet bgs
- 2.0 feet bentonite seal length from 40.7 feet bgs to top of seal at 38.7 feet bgs
- 1 bag of Hole Plug backfill chips
- 4.5 bags (50 lbs) of sand
- One-half bucket of bentonite pellets

Cascade crew leaves MW-18R to complete pad construction at MW-14R with JP.

1230 – Post-job meeting is complete. SM leaves MW-18R to meet Cascade at MW-14R. JM cleans work area before leaving Gate 3.

1300 – JM exits Gate 3. Cascade exit Rattlesnake Lake Gate 1. (MW-14R surface pad is complete.)

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Shannon McDonald</i>
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8/13/21

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	18	18	NA	36
Stantec Field inspector (1)	6	4	1	11
Total	24	22	1	47.0

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Ongoing	--	--	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW- 18R

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Monday, 8/16/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 9/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/12

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-PZ-18R (PZ-18R)

Look Ahead:

Begin drilling PZ-18R

Conditions:

Weather: Partly cloudy, hot (PM), 90° F

Access issues: Use caution and 4WD when needed around MW-18 series wells.

Daily Activities:

1300 – Shannon McDonald (SM-SCS) and David Wilcox (DW-Cascade) arrive onsite at the main construction entrance.

1315 – Tyson Williams (TW-Cascade) and Christopher Tidel (CT-Cascade) arrive onsite at the construction entrance. SM assists CT with site clearance, badging, and orientation. TW and DW retrieve equipment from lay down yard and fill water tank.

1415 – Walker Padgett (WP-Stantec) arrives onsite at Gate 3. Field crew conducts pre-job brief and fills out JSA forms.

1445 – Cascade begins mixing grout to use in the annulus of GS-AP-MW-18R (MW-18R).

1540 – Grouting MW-18R is completed. Cascade begins breaking down equipment and moving the rig to PZ-18R.

1715 – Cascade sets up the rig at boring location PZ-18R. Field crew exits the site through Gate 3.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i> 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	12.25	18	NA	30.25
Stantec Field inspector (1)	3	4	0.5	7.5
Total	15.25	22	0.5	37.75

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	--	--	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	--	--	--	--	212	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA

Notes:

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R ~~currently being installed~~ has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 8/17/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 9/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-PZ-18R (PZ-18R)

Look Ahead:

Grout PZ-18R, mobilize equipment to GS-AP-MW-36V and begin drilling MW-36VR

Conditions:

Weather: Partly cloudy, hot (AM) 76° F (PM), 90° F

Access issues: Use caution and 4WD when needed around MW-18 series wells.

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the Gate 3 entrance to the MW-18 series wells. Field crew conducts pre-job brief and fills out JSA forms.

0715 – CT and TW re-fill water tanks. DW prepares the rig to begin sonic drilling at PZ-18R.

0815 – Cascade commences rotary sonic drilling at PZ-18R.

0945 – Boring PZ-18R is advanced to 30 feet bgs. Cascade begins over-drilling the bring with 7-inch drill casing in preparation for air hammer drilling. WP transfers the sonic core to wooden core boxes.

1150 – Cascade begins air hammer drilling in boring PZ-18R from a depth of 30 feet bgs.

1445 – PZ-18R is advanced to a depth of 120 feet bgs. WP instructs Cascade to clean out the boring to perform an airlift rising head test to assess productivity of a fracture observed at 106-107 feet bgs. WP discusses options to set PZ-18R with Greg Dyer (GD-SCS) and it is agreed to set screen from 102 to 112 feet bgs.

1500 – After removing the air hammer and drill rods from the boring WP gauges stabilized depth to water to be 93.3 feet bgs.

1520 – Cascade breaks down the drill rods and mobilizes to the lay-down yard to retrieve well completion materials.

1630 – Cascade begins installing PZ-18R with screen interval from 102 to 112 feet bgs.

1745 – Cascade installs the bentonite seal above the sand filter pack in boring PZ-18R.

1800 – The field crew exits the site through Gate 3.

Reviewed by SCS-CFS:	G. McDonald	Date/Signature:	G. McDonald 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	33	3	NA	36
Stantec Field inspector (1)	11	1	1	13
Total	44	4	1	49

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	Pending
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	--	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Ongoing	--	--	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	Pending
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	Pending
GS-AP-MW-36V^	--	--	--	--	365	--	Pending
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	--	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	--	--	--	--	195	--	Pending
GS-AP-MW-45V^	--	--	--	--	265	--	Pending

Notes:
 ^ = Wells added to SOW per SCS addendum from August 2021
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R ~~currently being installed~~ has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Wednesday, 8/18/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-36V (MW-36V)

Look Ahead:

Resume drilling boring MW-36V

Conditions:

Weather: Partly cloudy, hot (AM) 76° F, (PM) 92° F

Access issues: Use caution and 4WD when needed around MW-18 series wells.

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS) and David Wilcox (DW-Cascade) arrive onsite at the Gate 3 entrance to the MW-18 series wells. Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) mobilize to the lay-down yard to retrieve grout from the lay-down yard to use in GS-AP-PZ-18R (PZ-18R).

0730 – Field crew conducts pre-job brief, fills out JSA forms and prepares to grout PZ-18R.

0815 – Cascade begins grouting PZ-18R. WP measures the density of the grout to be 10.0 lbs per gallon.

0915 – Cascade completes grouting of PZ-18R. Cascade begins breaking down drilling equipment in preparation of moving to MW-36V.

1400 – Cascade begins setting up the drill rig at location MW-36V.

1505 – Rotary 4-inch x 6-inch sonic drilling commences at location MW-36V.

1650 – MW-36V is advanced to the rotary sonic termination depth of 30 feet bgs. The field crew begins securing the work area before exiting the site.

1715 – The field crew exits the MW-36V drilling location outside of Gate 6 on Bankhead Road.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i> 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (1)	10.25	1	1	12.25
Total	41	4	1	46

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	Pending
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	Pending
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	Pending
GS-AP-MW-36V^	Ongoing	--	--	--	365	--	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	--	--	--	--	195	--	Pending
GS-AP-MW-45V^	--	--	--	--	265	--	Pending

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R ~~currently being installed~~ has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R



Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 8/19/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-36V (MW-36V)

Look Ahead:

Resume drilling boring MW-36V

Conditions:

Weather: Cloudy with thunderstorms (AM) 76° F, (PM) 84° F

Access issues: Use caution and 4WD when needed around MW-18 series wells.

Daily Activities:

0715 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the lay-down yard. Field crew performs pre-job brief and populates the JSA form

0800 – Field crew performs light maintenance on the drill rig.

0830 – Cascade begins over-drilling MW-36V with 7" steel casing to a depth of 30 feet bgs.

0915 – Boring MW-36V is over-drilled to 30 feet bgs. Cascade begins converting the rig to air hammer drilling technique.

1010 – Stop work is issued due to inclement weather in the area. WP and SM monitor the weather situation.

1345 – Work is called off for the day due to deteriorating weather conditions. Field crew secures the work area prior to departing the site.

1400 – WP exits the site

1415 – SM, DW, TC, and TW exit the site.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shannon McDonald 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	21	3	NA	24
Stantec Field inspector (1)	6.75	1	0.5	8.25
Total	27.75	4	0.5	32.25

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:**Attachment 1: Well Status**

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	Pending
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
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GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	Pending
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	Pending
GS-AP-MW-36V^	Ongoing	--	--	--	365	--	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	--	--	--	--	195	--	Pending
GS-AP-MW-45V^	--	--	--	--	265	--	Pending

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 8/20/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-36V (MW-36V)

Look Ahead:

Resume drilling boring MW-36V

Conditions:

Weather: Cloudy (AM) 73° F (PM), 83° F

Access issues: None

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite and mobilize to the MW-36V boring location.

0715 – Field crew performs pre-job brief and populates the JSA form.

0730 – Golder Geophysics personnel Mac Morrow (MM-Golder) arrives onsite. SM escorts MM to GS-AP-MW-18VR.

0809 – Cascade begins air hammering boring MW-36V from a depth of 30 feet bgs.

1210 – Well completion materials arrive at the site via freight courier. Drilling paused while DW unloads the materials in the lay-down yard with a skid steer.

1315 – Air hammer drilling at boring MW-36V resumes.

1615 – MM completes geophysical analysis of boring MW-18VR and exits the site.

1634 – MW-36V is advanced to a depth of 300 feet bgs. The field crew begins breaking down the work area for the day.

1700 – The field crew exits the MW-36V work area.

1715 – Field crew offsite

Reviewed by SCS-CFS:	B. McDonald	Date/Signature:	B. McDonald 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (1)	10.25	1	1	12.25
Total	41	4	1	46

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	Pending
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	Pending
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	Pending
GS-AP-MW-36V^	Ongoing	--	--	--	365	--	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	--	--	--	--	195	--	Pending
GS-AP-MW-45V^	--	--	--	--	265	--	Pending

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Saturday, 8/21/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-45V (MW-45V)

Look Ahead:

Begin drilling boring MW-45V

Conditions:

Weather: Cloudy, showers and thunderstorm (AM) 73° F (PM), 84° F

Access issues: None

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite and mobilize to the MW-36V boring location.

0715 – Field crew performs pre-job brief and populates the JSA form.

0811 – Cascade resumes drilling GS-AP-MW-36V (MW-36V) from a depth of 300 feet bgs.

0900 – WP discusses the lithology of MW-36V with Greg Dyer (GD-SCS) and the decision is made to terminate the boring at a depth of 325 feet bgs. WP, SM, and DW discuss the logistics of the next boring location.

0940 – Cascade washes boring MW-36V and begins breaking down equipment.

1035 – WP and SM visit the MW-18 series wells to measure boring specifications and inspect housekeeping.

1245 – Cascade begins setting up equipment at boring location MW-45V.

1505 – Work stoppage is issued due to inclement weather.

1615 – Work crew exits the site due to inclement weather. Field crew offsite.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Chanel McDonald 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	27.75	3	NA	30.75
Stantec Field inspector (1)	9.25	1	1	11.25
Total	38	4	1	43

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	Pending
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	Pending
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	Pending
GS-AP-MW-36V^	Ongoing	--	--	--	365	--	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	--	--	--	--	195	--	Pending
GS-AP-MW-45V^	--	--	--	--	265	--	Pending

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R ~~currently being installed~~ has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Sunday, 8/22/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-45V (MW-45V)

Look Ahead:

Resume drilling boring MW-45V

Conditions:

Weather: Partly Cloudy, hot (AM) 74° F (PM), 91° F

Access issues: None

Daily Activities:

0700 – Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-45V boring location.

0715 – Walker Padgett (WP-Stantec) Field crew performs pre-job brief and populates the JSA form.

0730 – Mac Morrow (MM-Golder) arrives onsite at the MW-45V boring location. SM escorts MM to the GS-AP-MW-36V boring location to run geophysics.

0750 – Cascade begins rotary sonic drilling of MW-45V.

0905 – Boring MW-45V is advanced to a depth of 30 feet. Cascade begins over-drilling the boring with 7" steel casing.

0945 – Cascade completes over-drilling and installation of 7" steel casing and begins converting the rig to air hammer drilling method.

1053 – Cascade commences air hammer drilling of boring MW-45V.

1345 – MM completes geophysical investigation and exits the site.

1650 – Boring MW-45V is advanced to a depth of 250 feet bgs. Field crew begins securing the site prior to departure.

1715 – Field crew offsite.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Clarence McDonald 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (1)	10	1	1	12
Total	40.75	4	1	45.75

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	Pending
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending geophysics	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	Pending
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	Pending
GS-AP-MW-36V^	Pending geophysics	--	--	--	365	--	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	--	--	--	--	195	--	Pending
GS-AP-MW-45V^	Ongoing	--	--	--	265	--	Pending

Notes:
^ = Wells added to SOW per SCS addendum from August 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 8/23/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-45H (MW-45H)

Look Ahead:

Resume drilling boring MW-45H

Conditions:

Weather: Partly Cloudy, hot (AM) 7° F (PM), 91° F

Access issues: None

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-45V boring location.

0715 – Field crew performs pre-job brief and populates the JSA form.

0745 – SM exits the site to visit Logan Martin Dam at request of SCS.

0800 – Cascade prepares the work area to resume drilling. WP exits the site to acquire health and safety items before continuing drilling.

0917 – Cascade resumes air hammer drilling MW-45V from a depth of 250 feet bgs.

0940 – Termination depth of 265 feet is reached in boring MW-45V.

0945 – WP discusses the lithology of MW-45V, MW-36V, and MW-18VR with Greg Dyer. Cascade begins breaking down the drill rig.

1000 – WP and DW visit the GS-AP-MW-3V boring location to assess rig accessibility.

1145 – Cascade begins setting up the rig at boring location MW-45H.

1315 – Cascade commences rotary sonic drilling at location MW-45H.

1445 – Cascade advances boring MW-45H to a depth of 30 feet with 4" core barrel and 6" casing. Begin over-drilling the boring with 7" steel casing.

1530 – Cascade installs 7" steel casing to 30 feet bgs and begins converting the rig over to air hammer drilling.

1615 – Cascade begins air hammer drilling at boring MW-45H from a depth of 30 feet bgs.

1645 – Boring MW-45H is drilled to a depth of 50 feet bgs. Field crew begins securing the work area.

1700 – The field crew exits the site

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shaun McDonald 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (1)	10	1	1	12
Total	40	4	1	45

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	Pending
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	Pending
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	Pending
GS-AP-MW-36V^	Pending	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Ongoing	--	--	--	195	--	Pending
GS-AP-MW-45V^	Pending geophysics	--	--	--	265	265**	Pending

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 8/24/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-45H (MW-45H)

Look Ahead:

Abandon boring MW-45H, install monitoring well GS-AP-MW-45V

Conditions:

Weather: Partly Cloudy, hot (AM) 74° F (PM), 90° F

Access issues: None

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-45V boring location. Mac Morrow (MM-Golder) onsite to perform geophysics of MW-45V.

0715 – Field crew performs pre-job brief and populates the JSA form.

0730 – Cascade prepares the drill rig to resume drilling MW-45H.

0745 – Cascade resumes drilling MW-45H from a depth of 50 feet bgs.

1223 – Depth of 216 feet bgs is reached in boring MW-45H. Air circulation is lost at a depth of 212 feet. Cascade extracts the air hammer to assess functionality.

1342 -- Cascade resumes drilling from 216 feet bgs and air circulation is not restored due to loss to the formation between 212 and 216 feet bgs, which is believed to be a coal seam.

1428 – WP discusses the lithology of MW-45VH with Greg Dyer. Cascade begins tracking the skid steer from MW-36V area to GS-AP-MW-3V (MW-3V) work area.

1522 – WP further discusses the lithology of MW-45V and MW-45H with Greg Dyer. The decision is made to abandon boring MW-45H due to loss of circulation, and re-drill at an alternate location east of MW-45V.

1630 – Cascade begins clearing vegetation around boring location MW-3V to allow drill rig access.

1730 – The field crew exits the site

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shauney McDonald 8/25/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	1	1	12.5
Total	42	4	1	47

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Ongoing	--	--	--	195	--	NA
GS-AP-MW-45V^	Pending	--	--	--	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW- 18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 8/25/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

Equipment is stowed in the lay-down yard and Gate 1 parking area.

Look Ahead:

Install monitoring well GS-AP-MW-45V (MW-45V).

Conditions:

Weather: Partly Cloudy, hot (AM) 74° F (PM), 90° F

Access issues: While escorting tracked equipment, move equipment over to the side to allow vehicles to pass by.

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-45V boring location. Mac Morrow (MM-Golder) onsite to perform geophysics of boring MW-45.

0715 – Field crew performs pre-job brief and populates the JSA form.

0725 – WP gauges DTW in boring MW-45H to be 190.9 feet bgs. Water in the well is observed to be highly viscous due to saturated cuttings that could not be removed from the boring after loss of air circulation. Cascade begins breaking down drill rods.

0815 – DW adds three bags of hole plug to the MW-45H boring. Top of the bentonite hole plug is measured to be 182 feet bgs. Cascade begins preparing to grout borehole MW-45H.

0830 – Cascade begins grouting boring MW-45H. The grout density is measured at 10.1 lbs/gallon.

0930 -- Cascade completes grouting of boring MW-45H. A total of 315 gallons of grout were used.

0945 – The site safety officer of Plant Gorgas, Tom Donahue, visits the work area and informs the field crew we are not approved to leave the rig set-up on the Gate 1 access road over the break, and that we are to pull tracked equipment to the side of the road to allow other vehicles to pass while moving equipment. Cascade resumes breaking down equipment.

1130 – WP exits the site

1200 – SM, DW, TW, and TC exit the site.

Reviewed by SCS-CFS:		Date/Signature:	
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	15	18	NA	33
Stantec Field inspector (1)	4.5	4	1	9.5
Total	19.5	22	1	42.5

Safety/Environmental: Practice defensive driving, be alert to signs of driver fatigue.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Pending install	--	--	--	265	265**	NA

Notes:
^ = Wells added to SOW per SCS addendum from August 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 9/7/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-45H (MW-45H)

Look Ahead:

Grout GS-AP-MW-45V. Install GS-AP-MW-45H.

Conditions:

Weather: Partly Cloudy, hot (AM) 70° F (PM), 85° F

Access issues: None

Daily Activities:

1230 – Mark Padgett (MP-Stantec) and Shannon McDonald (SM-SCS) onsite. MP and SM proceed to the security trailer to begin badging for MP.

1245 – Andrew Stevens (AS-Stantec) onsite. AS meets MP and SM at the security trailer.

1305 - David Wilcox (DW-Cascade) onsite. Meets AS and MP at the security trailer.

1400 - Christopher Tindel (CT-Cascade) and Tyson Williams (TW-Cascade) arrive onsite and proceed to the lay down yard to load sand and bentonite.

1430 – Field crew performs pre-job brief and populates the JSA form.

1500 – DW, CT, and TW setup drilling equipment at MW-45H.

1530 – AS gauges DTW in boring MW-45H to be 197.4 feet below TOC. DW adds three bags of hole plug to the MW-45H boring. Top of the hole plug is measured to be 260.2 feet bgs. DW adds sand up to a measured depth of 257.0 feet bgs.

1600 – DW installs the screen at 257.0 to 247.0 feet bgs. DW adds sand from 257.0 feet up to a measured depth of 243.9 feet bgs. DW installs the well casing to the ground surface.

1630 – DW installs bentonite from 243.9 feet to a measured depth of 239.7 feet bgs.

1700 - Cascade breaks down equipment. Equipment will be left on the side of the G1 access road overnight.

1730 – MP, AS, SM, DW, TW, and TC exit the site.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	11.5	18	NA	29.5
Stantec Field inspector (2)	10	8	1	19
Total	16.5	22	1	48.5

Safety/Environmental: Practice defensive driving, be alert to signs of driver fatigue.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 9/8/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 10/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-45H (MW-45H)

Look Ahead:

Resume drilling boring MW-45H

Conditions:

Weather: Partly Cloudy, hot (AM) 70° F (PM), 88° F

Access issues: None

Daily Activities:

0700 – Mark Padgett (MP-Stantec), Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-45V boring location.

0715 – Field crew performs pre-job brief and populates the JSA form. Cascade drives to the lay down yard to get grout.

0800 – Cascade prepares the work area to grout MW-45V.

0830 – Cascade begins to grout MW-45V. Cascade mixes 8.5 bags which makes approximately 340 gallons of grout.

0900 – AS conducts a grout weight test. The grout measures 10.01.

1015 – Cascade finishes grouting MW-45V and begins packing up equipment to move to MW-45H.

1130 – Cascade sets up the rig and equipment at MW-45H.

1215 – Cascade commences rotary sonic drilling at location MW-45H.

1545 – Cascade advances boring MW-45H to a depth of 30 feet with 4" core barrel and 6" casing. Begin over-drilling the boring with 7" steel casing.

1615 – Cascade installs 7" steel casing to 30 feet bgs and begins converting the rig over to air hammer drilling.

1625 – Cascade begins air hammer drilling at boring MW-45H from a depth of 30 feet bgs.

1655 – Boring MW-45H is drilled to a depth of 60 feet bgs. Field crew begins securing the work area.

1705 – The field crew exits the site.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (2)	20	2	1	23
Total	50	5	1	56

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
^ = Wells added to SOW per SCS addendum from August 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW- 18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 9/9/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 11/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-45H (MW-45H)

Look Ahead:

Abandon boring MW-45H, install monitoring well GS-AP-MW-3V

Conditions:

Weather: Sunny, hot (AM) 65° F (PM), 80° F

Access issues: None

Daily Activities:

0700 – Mark Padgett (WP-Stantec), Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-45H boring location.

0715 – Field crew performs pre-job brief and populates the JSA form.

0730 – Cascade prepares the drill rig to resume drilling MW-45H.

0740 – Cascade resumes drilling MW-45H from a depth of 60 feet bgs.

1200 – Depth of 218 feet bgs is reached in boring MW-45H. Air circulation is lost at a depth of 215 feet. No air or water can be circulated in the borehole.

1230 – Cascade begins retrieving rods from MW-45H. AS contacts Greg Dyer to inform him of the void encountered at MW-45H.

1330 – Cascade finishes retrieving rods. DTW measured in the borehole to be 198.0 feet bgs.

1400 – AS and Cascade go to the laydown yard to drop off core boxes and get grout.

1430 – Cascade begins grouting MW-45H.

1550 – Cascade finishes grouting MW-45H. Cascade used 13 bags of hole plug and 14 bags of grout. Approximately 280 gallons of grout was used.

1600- Cascade begins removing the 6" surface casing.

1645 - Cascade begins packing equipment to move to MW-3V.

1700 – The field crew exits the site.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (2)	20	2	1	23
Total	50	5	1	56

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
^ = Wells added to SOW per SCS addendum from August 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18VR will now be designated as GS-AP-MW-18R

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 9/10/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 11/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-3V (MW-3V)

Look Ahead:

Drill and Install monitoring well GS-AP-MW-3V

Conditions:

Weather: Partly Cloudy, warm (AM) 64° F (PM), 84° F

Access issues: None

Daily Activities:

0700 – Mark Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-45H boring location.

0715 – Field crew performs pre-job brief and populates the JSA form.

0730 – Cascade switching drill rigs. The current rig will be taken offsite and replaced with DW's typical rig.

0900 – Cascade tops off the abandoned MW-45H borings with grout and dirt at the surface.

0930 – Cascade begins to setup equipment at GS-AP-MW-3V (MW-3V).

1100 – Cascade notices an issue with the preload on a piston on the rig. A special grease gun is needed to fix the issue. DW calls the drillers at Yates and will drive to meet them halfway to get the grease gun.

1200 – While DW is away, TW and CT dig the frames around MW-45V and MW-37R. They also add pea gravel to well MW-10R.

1430 – DW back onsite. Cascade begins working to fix the preload on the rig.

1545 – Cascade begins drilling MW-3V.

1720 – Cascade reaches 37 feet bgs. Cascade is in bedrock and will drill to 40 feet bgs tomorrow morning before setting the 6-inch surface casing.

1730 – The field crew exits the site.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3	NA	34.5
Stantec Field inspector (1)	10.5	3.5	1	15
Total	42	6.5	1	49.5

Safety/Environmental: Be alert of slips/trips/falls on uneven ground.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	--	--	--	--	250	--	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
^ = Wells added to SOW per SCS addendum from August 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Monitoring well ID for GS-AP-MW-18R currently being installed has been revised to GS-AP-MW-18VR, location previously designated as GS-AP-MW-18R will now be designated as GS-AP-MW- 18R

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Saturday, 9/11/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 11/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-3V (MW-3V)

Look Ahead:

Perform geophysics inspection of MW-3V, build well pads, install MW-3V

Conditions:

Weather: Sunny, warm (AM) 59° F (PM), 82° F

Access issues: None

Daily Activities:

0700 – Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-3V boring location.

0710 – Walker Padgett (WP-Stantec) arrives onsite. Field crew performs pre-job brief and populates the JSA form.

0730 – Cascade prepares the drill rig to resume drilling MW-3V.

0815 – Cascade resumes drilling MW-3V from a depth of 37 feet bgs.

0825 – MW-3V is advanced to 40 feet bgs. Cascade begins over-drilling with 7" steel casing.

0900 – Boring MW-3V is over-drilled to 40 feet bgs. Cascade begins setting up the rig for air hammer drilling. WP transfers sonic cores to core boxes for transport to lay-down yard.

1142 – Cascade begins air hammer drilling MW-3V from a depth of 40 feet bgs.

1620 – Depth of 220 feet bgs is reached in boring MW-3V. WP discusses the lithology with Greg Dyer and Greg Budd. Decision is made to terminate the boring at 220 feet bgs. Cascade begins extracting drill rods and the air hammer from MW-3V. WP and SM transfer core boxes to the lay-down yard.

1720 – The field crew exits the site.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (2)	10.25	1.5	1	12.75
Total	41	4.5	1	46.5

Safety/Environmental: Be alert of signs of heat stress and stay hydrated.

Comments:**Attachment 1: Well Status**

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	Pending geophysics	--	--	--	250	220**	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Monday, 9/13/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 11/18
 Monitoring Well Abandonments Completed / Proposed = 5/6
 Monitoring Well Preliminary Development Completed Proposed 0/18
 Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-3V (MW-3V)

Look Ahead:

Grout MW-3V, move to next location and begin drilling

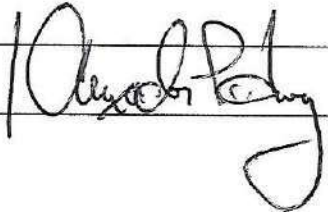
Conditions:

Weather: Sunny, warm (AM) 68° F (PM), 88° F

Access issues: None

Daily Activities:

0700 – Paul Henry (PH-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-3V boring location. CS arrives at Plant for check-in.
 0745 – Carolyn Sexton (WP-Stantec) arrives onsite. Field crew performs pre-job brief and populates the JSA form.
 0800 – Cascade prepares the drill rig to set the well MW-3V. CS reaches out to Greg Dyer and Greg Budd for confirmation on where the screen needs to be set.
 0820 – Cascade begins packing the pre-pack screen with sand.
 0835 – CT reports not feeling well, proceeds with steps in incident protocol. Crew is on stand-by until a path forward is identified.
 1500 – PH and TW are clear through protocol to resume work.
 1505 – CS receives the all-clear to resume setting the well from Greg Budd.
 1520 – DW receives the all-clear to resume field work from the Cascade office.
 1525 – Cascade begins setting 2" well to the target total depth of 215' bgs.
 1620 – Bentonite seal is set and 4-hr hydration period begins.
 1630 – The field crew exits the site.

Reviewed by SCS-CFS:	ALEXANDER P. HENRY	Date/Signature:	9/14/21 / 
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	28.5	3	NA	31.5
Stantec Field inspector (1)	9.5	1	1	11.5
Total		4	1	43

Safety/Environmental: Be alert of snakes and brown recluse spiders.

Comments:**Attachment 1: Well Status**

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	--	--	--	--	248.42	--	NA
GS-AP-MW-03V^	Pending geophysics	--	--	--	250	220**	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 9/14/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-3V (MW-3V) & GS-AP-MW-1R (MW-1R)

Look Ahead:

Drill MW-1R to depth, await downhole geophysics

Conditions:

Weather: Overcast, warm (AM) 72° F (PM), 82° F

Access issues: None

Daily Activities:

0700 – David Wilcox (DW-Cascade) and Tyson Williams (TW-Cascade) arrive at the plant to pick up grout. Paul Henry (PH-SCS) and Carolyn Sexton (CS-Stantec) arrives onsite at MW-3V.

0745 – DW and TW arrive onsite at MW-3V. Field crew performs pre-job brief and populates the JSA form.

0755 – TW loads water tank and takes to fill. DW preps the rig for grouting.

0815 – TW returns with water. DW and TW set up to begin grouting.

0830 – DW and TW begin grouting well MW-3V with Halliburton Aqua Guard 30% bentonite solids grout.

0945 – Grouting complete. Approximately 270 gallons of grout (12 bags of grout at an average mud density of 10.1 lbs./gal) is tremmie placed from the bentonite seal at 198 feet depth to ground surface.

DW and TW begin extracting the 7" casing and purging pumps post-grouting.

1025 – All parties begin packing up to mobilize off MW-3V.

1105 – Mobilization begins to GS-AP-MW-1R (MW-1R).

1325 – DW and TW begin set up at MW-1R, placing secondary containment and preparing for roto-sonic drilling.

1350 – TW takes water tank to fill.

1435 – TW returns with water, transfers water to rig.

1450 – Roto-sonic drilling and sampling begins. CS begins logging the boring.

1540 – DW stops to check TOR.

1555 – PH goes to laydown yard for core boxes, DW resumes drilling.


1625 – PH returns with core boxes, roto-sonic drilling to competent rock is complete. DW and TW set up to overdrill to 40' bgs with the 7" overburden isolating casing.

1645 – Overdrilling begins. CS begins boxing core samples.

1715 – Overdrilling is complete. 7" casing is set at 40' bgs. Drillers conduct localized housekeeping and secure the rig for the night.

1730 – PH collects post-job JSAs. DW and TW exit site. CS conducts localized housekeeping.

1740 – PH and CS exit the site.

Reviewed by SCS-CFS:	Alexander P. Henry	Date/Signature:	9/15/21	
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	21.0	3	NA	24.0
Stantec Field inspector (1)	10.75	1	1	11.75
Total		4	1	35.75

Safety/Environmental: Stay hydrated.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	Ongoing	--	--	--	248.42	--	NA
GS-AP-MW-03V^	Installed	--	--	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Wednesday, 9/15/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18
 Monitoring Well Abandonments Completed / Proposed = 5/6
 Monitoring Well Preliminary Development Completed Proposed 0/18
 Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-1R (MW-1R)

Look Ahead:

Drill MW-1R to depth

Conditions:

Weather: Overcast with intermittent light rain, warm (AM) 70° F, (PM) 75° F

Access issues: None

Daily Activities:

0700 – David Wilcox (DW-Cascade), Tyson Williams (TW-Cascade), Paul Henry (PH-SCS) and Carolyn Sexton (CS-Stantec) arrives at the gate to MW-1R and travel to the site.
 0710 – Field crew performs pre-job brief and populates the JSA form.
 0745 – DW and TW begin switching over tooling from roto-sonic to air-hammer, trip the hammer assembly downhole, and set up return and outflow hoses.
 0840 – DW and TW begin air-hammer drilling at MW-1R from 40' bgs.
 1030 – End of day. Boring advanced to 120' bgs of 250' target depth. Crew begins localized housekeeping and secures the job site for the long weekend.
 1100 – PH collects post-job JSAs. PH and CS exit the site.

Reviewed by SCS-CFS:	<i>Alexander P. Henry</i>	Date/Signature:	<i>9/16/21</i> <i>Alexander P. Henry</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	8	17	NA	25
Stantec Field inspector (1)	4	5	1	10
Total		4	1	35

Safety/Environmental:

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	Ongoing	--	--	--	248.42	--	NA
GS-AP-MW-03V^	Installed	--	--	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	--	--	--	--	360	--	NA
GS-AP-MW-36V^	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	--	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Tuesday, 9/21/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18
 Monitoring Well Abandonments Completed / Proposed = 5/6
 Monitoring Well Preliminary Development Completed Proposed 0/18
 Refer to Attachment 1 below for well status.

Current Work Location:

Drill GS-AP-MW-1R (MW-1R) to Depth.

Look Ahead:

GS-AP-MW-31V (MW-31V)

Conditions:

Weather: Overcast with intermittent light rain, warm (AM) 72° F, (PM) 84° F

Access Issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-31V boring location.

0840 – DW, CT TW begin air-hammer drilling at MW-1R from 120' bgs.

1030 – Boring advanced from 120' bgs of 250' target depth.

1228 – Lightning stand down, Current depth is 250' bgs

1258 – All Clear, DW resume air-hammer drilling from 250-255' bgs.

1400 – Cascade begins pulling rods from MW-1R.

1420 – DW checks DTW as 227.4 ft bgs, water level rose to 225.0 ft bgs after 5 minutes. AS works on fixing DTW meter to get accurate reading.

1510 – Crew leaves to begin setting pad for MW-03V.

1700 – SM collects post-job JSAs. Field Crew exit the site.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.0	3.0	NA	33.0
Stantec Field Inspector (1)	10.0	1.25	2.0	12.75
Total	40.0	4.25	1.5	

Safety/Environmental: Watch for inclement weather

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	N/A	N/A	N/A	N/A	N/A	Pending
GS-AP-MW-01R	Ongoing	--	--	--	248.42	255	N/A
GS-AP-MW-03V*	Installed	--	Pending	--	250	215	N/A
GS-AP-MW-05R	Installed	Pending	Pad & Ballards	165.0-175.0	191.42	185	N/A
GS-AP-MW-09R	Installed	Pending	Pad & Ballards	85.0-96.0	160	140	N/A
GS-AP-MW-10R	Installed	Pending	Pad & Ballards	198.0-208.0	225	220	N/A
GS-AP-MW-11R	Installed	Pending	Pad & Ballards	134.4-144.4	226	160	N/A
GS-AP-MW-13R	Installed	Pending	Pad & Ballards	155.0-165.0	222	180	N/A
GS-AP-MW-14R	Installed	Pending	Pad & Ballards	189.0-199.0	254.19	210	N/A
GS-AP-MW-16*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	N/A
GS-AP-MW-18V*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	N/A
GS-AP-PZ-18*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	N/A
GS-AP-MW-23V*	--	--	--	--	90	--	N/A
GS-AP-MW-27H*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Ballards	267.0-277.0	335.91	300	N/A
GS-AP-MW-31V*	--	--	--	--	360	--	N/A
GS-AP-MW-36V*	Pending install	--	--	--	365	325**	N/A
GS-AP-MW-37H*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	N/A
GS-AP-MW-45H*	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA*	--	--	--	--	220	--	N/A
GS-AP-MW-45V*	Installed	Pending	Pending	247.0-257.0	265	265**	N/A

Notes:
 * = Wells added to SOW per SCS addendum from August 2021
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Wednesday, 9/22/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18
 Monitoring Well Abandonments Completed / Proposed = 5/6
 Monitoring Well Preliminary Development Completed Proposed 0/18
 Refer to Attachment 1 below for well status.

Current Work Location:

Move drill rig from GS-AP-MW-1R (MW-1R) to GS-AP-MW-31V (MW-31V)

Look Ahead:

Continue drilling GS-AP-MW-31V (MW-31V).

Conditions:

Weather: Sunny, (AM) 63° F, (PM) 82° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-1R boring location.

0840 – DW, CT TW begin breaking down and moving rig to MW-31V.

1015 – DW, CT TW begin setting up rig at MW-31V.

1100 – Sunbelt rentals arrives to work on air compressor.

1135 – Drilling begins at MW-31V.

1145 – Sunbelt rentals leaves site.

1335 – Switch from Rotary Sonic to Air Hammer at 30' bgs.

1520 – Boring advanced from 30'-100' bgs depth.

1700 – Field crews pack up for the day.

1710 – SM collects post-job JSAs. Field Crew exit the site.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field inspector (1)	10.25	1.25	1.0	12.50
Total				56.25

Reviewed by SCS-CFS: S. McDonald Date/Signature: Shauna McDonald

9/29/21

Safety/Environmental: Watch for inclement weather

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	Ongoing	--	--	--	246.42	255	NA
GS-AP-MW-03V*	Installed	--	Pending	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	160	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V*	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V*	Ongoing	--	--	--	360	100	NA
GS-AP-MW-36V*	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H*	Abandoned	--	--	--	195	215	Complete
GS-AP-MW-45HA*	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V*	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
 * = Wells added to SOW per SCS addendum from August 2021
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 9/23/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18
 Monitoring Well Abandonments Completed / Proposed = 5/6
 Monitoring Well Preliminary Development Completed Proposed 0/18
 Refer to Attachment 1 below for well status.

Current Work Location:

Move drill rig from GS-AP-MW-1R (MW-1R) to GS-AP-MW-31V (MW-31V)

Look Ahead:

Continue drilling GS-AP-MW-31V (MW-31V).

Conditions:

Weather: Sunny, (AM) 54° F, (PM) 83° F

Access Issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-1R boring location.
 0800 – DW, CT TW resume air hammer drilling MW-31V from 100'-310' bgs.
 1405 – DW, TW and SM leave to unload supplies delivered to the laydown yard.
 1450 – DW, TW and SM arrive back at MW-31V and resume air hammering from 310'-330' bgs.
 1600 – DW, CT TW pause for a Cascade safety stand down.
 1620 – Resume air hammering from 330'-335' bgs.
 1655 – Drilled to targeted depth, crews pack up for the night.
 1710 – SM collects post-job JSAs. Field Crew exit the site.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field inspector (1)	10.25	1.25	1.5	12.50
Total				56.25

Safety/Environmental: Safe Driving Practices

Reviewed by SCS-CFS: **S. McDonald** Date/Signature: **Chauwenet McDonald**

9/29/21

Comments:

Attachment 1: Well Status

Southern Company Services							
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment							
Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	Pending
GS-AP-MW-01R	Ongoing	--	--	--	248.42	255	NA
GS-AP-MW-03V*	Installed	--	Pending	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-16*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-16*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	128	NA
GS-AP-MW-23V*	--	--	--	--	90	--	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V*	Ongoing	--	--	--	360	335	NA
GS-AP-MW-36V*	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H*	Abandoned	--	--	--	195	215	Complete
GS-AP-MW-45HA*	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V*	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

* = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 9/24/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

~~Move drill rig from GS-AP-MW-1R (MW-1R) to GS-AP-MW-31V (MW-31V)~~

Look Ahead:

~~Continue drilling GS-AP-MW-31V (MW-31V).~~

Conditions:

Weather: Sunny, (AM) 50° F, (PM) 74° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-31V boring location and conduct JSA.

0740 – DW, CT TW use air hammer to flush water from MW-31V.

0820 – Well producing a lot of water, DW, CT and TW begin pulling rods.

0850 – AS measures water level 79.0 ft bgs. See attachment 2 for details.

0910 – Water level stable at 60.5 ft bgs.

0950 – Leave MW-31V to scout out MW-23V.

1030 – Begin moving rig from MW-31V to MW-23V.

1310 – Begin setting up drill rig, field crew notices powerline 20 feet away, field crew on standby until further notice.

1500 – Rig is able to set up 25 feet away from the powerline, field crews start setting up drill rig at MW-23V.

1540 – Drilling begins at MW-23V.

1600 – Bolts on rig head need to be replaced, DW, CT and TW begin replacing bolts. Current depth of boring is 15 feet bgs.

1715 – SM collects post-job JSAs. Field Crew exit the site.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shaun McDonald 9/29/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field inspector (1)	10.25	1.25	1.0	12.50
Total				46.25

Safety/Environmental: Safe Driving Practices

Comments:

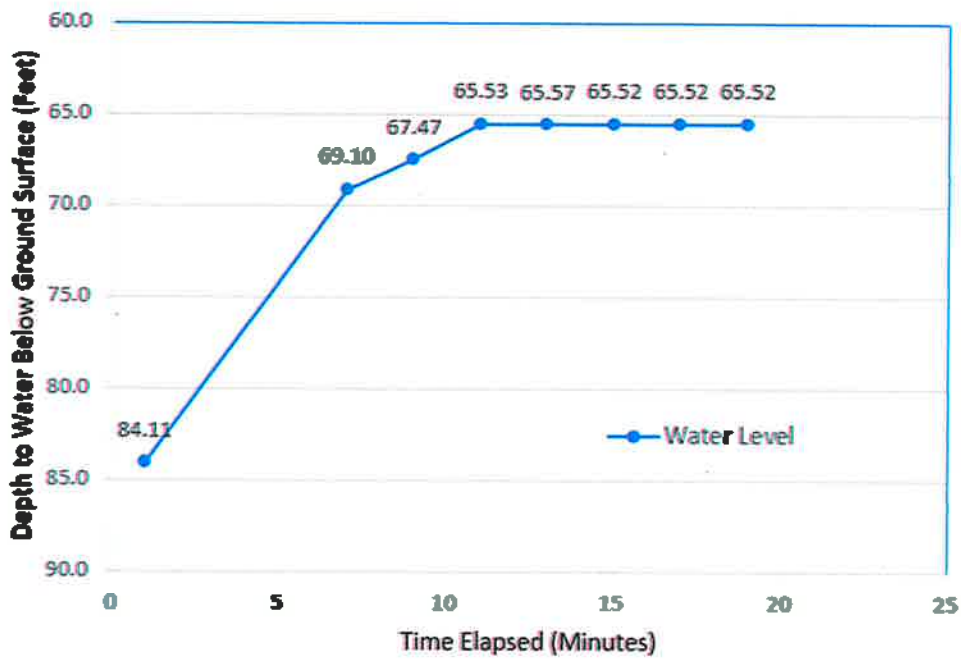
Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	N/A	N/A	N/A	N/A	N/A	Pending
GS-AP-MW-01R	Ongoing	--	--	--	248.42	255	N/A
GS-AP-MW-03V*	Installed	--	Pending	--	250	215	N/A
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	N/A
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	N/A
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	N/A
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	N/A
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	N/A
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	N/A
GS-AP-MW-18*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	N/A
GS-AP-MW-18V*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	N/A
GS-AP-PZ-18*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	N/A
GS-AP-MW-23V*	--	--	--	--	90	--	N/A
GS-AP-MW-27H*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	N/A
GS-AP-MW-31V*	--	--	--	--	360	--	N/A
GS-AP-MW-36V*	Pending install	--	--	--	365	325**	N/A
GS-AP-MW-37H*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	N/A
GS-AP-MW-45H*	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA*	--	--	--	--	220	--	N/A
GS-AP-MW-45V*	Installed	Pending	Pending	247.0-257.0	265	265**	N/A

Notes:
 * = Wells added to SOW per SCS addendum from August 2021
 ** = MW to be Abandoned
 *** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Attachment 2: Recharge Test

MW-31V Rising Head Test



Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Saturday, 9/25/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18
 Monitoring Well Abandonments Completed / Proposed = 5/6
 Monitoring Well Preliminary Development Completed Proposed 0/18
 Refer to Attachment 1 below for well status.

Current Work Location:

Continue drilling GS-AP-MW-31V (MW-31V).
23V 23V

Look Ahead:

Set well GS-AP-MW-31V (MW-31V).

Conditions:

Weather: Sunny, (AM) 57° F, (PM) 79° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-23V boring location and conduct JSA.
 0740 – DW, CT TW leave to get 6" and 7" casing from the laydown yard.
 0850 – Arrive back at MW-23V.
 0920 – Drilling resumes from 15-87 ft.
 1230 – AS calls Greg Dyer (GD-Southern Company) about termination depth of MW-23V.
 1320 – GD suggest 87 ft bgs for termination depth.
 1440 – Field crew leaves MW-23V to abandon well MW-1.
 1645 – MW-1 abandoned, AS arrives at MW-23V to measure water level. Depth to water is 23.3 ft bgs.
 1715 – SM collects post-job JSAs. Field Crew exit the site.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field Inspector (1)	10.25	1.25	1.0	12.50
Total				46.25

Safety/Environmental: Safe Driving Practices

9/29/21

Comments:

Attachment 1: Well Status

Southern Company Services							
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment							
Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	N/A	N/A	N/A	N/A	N/A	In Progress
GS-AP-MW-01R	Pending geophysics	--	--	--	248.42	255	N/A
GS-AP-MW-03V*	Installed	Pending	Pending	--	250	215	N/A
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	N/A
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	N/A
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	N/A
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	N/A
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	N/A
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	N/A
GS-AP-MW-18*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	N/A
GS-AP-MW-18V*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	N/A
GS-AP-PZ-18*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-182	212	120	N/A
GS-AP-MW-23V*	Ongoing	--	--	--	90	87	N/A
GS-AP-MW-27H*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	N/A
GS-AP-MW-31V*	Pending geophysics	--	--	--	360	335	N/A
GS-AP-MW-36V*	Pending install	--	--	--	365	325**	N/A
GS-AP-MW-37H*	Abandoned	N/A	N/A	N/A	N/A	N/A	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	N/A
GS-AP-MW-45H*	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA*	Abandoned	--	--	--	220	--	N/A
GS-AP-MW-45V*	Installed	Pending	Pending	247.0-257.0	265	265**	N/A

Notes:

* = Wells added to SOW per SCS addendum from August 2021

** = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Sunday, 9/26/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18
Monitoring Well Abandonments Completed / Proposed = 5/6
Monitoring Well Preliminary Development Completed Proposed 0/18
Refer to Attachment 1 below for well status.

Current Work Location:

Start setting well GS-AP-MW-23V (MW-23V) and finishing well completion at GS-AP-MW-03V (MW-03V).

Look Ahead:

Finish setting well GS-AP-MW-23V (MW-23V), and begin setting well GS-AP-MW-36V (MW-36V)

Conditions:

Weather: Sunny, (AM) 54° F, (PM) 85° F

Access Issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-23V boring location and conduct JSA.

0745 – AS measure water level. Depth to water is 23.3 ft bgs. Cascade begins pulling 6" outer casing to 57' bgs.

0830 – AS measure water level. Depth to water is 17.1 ft bgs.

0840 – AS calls Greg Dyer (GD-Southern Company) about setting MW-23V screen from 74-84 feet bgs.

0920 – Field crew leave to set pad and bollards at MW-03V.

0945 – GD confirms screen interval for MW-23V.

1105 – Pad and bollards set at MW-03V, field crew leave to set well at MW-23V.

1155 – Cascade begins setting well MW-23V. Bottom of boring is 86.2 feet bgs, sand from 70.7-86.2 feet bgs, screen interval set to 74-84 feet bgs.

1230 – Bentonite pellets placed from 66.5-70.7 feet bgs and left to hydrate for 4 hours.

1300 – Field crew heads back to the laydown yard to check supply inventory.

1400 – Arrive at MW-45HA to finish well abandonment.

1430 – SM collects post-job JSAs. Field Crew exit the site.

Reviewed by SCS-CFS:	<i>S. McDonald</i>	Date/Signature:	<i>Clayton McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	22.50	3.0	NA	25.5
Stantec Field inspector (1)	7.50	1.25	1.0	9.75
Total				35.25

Safety/Environmental: Safe Driving Practices

Comments:

Attachment 1: Well Status

Southern Company Services							
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment							
Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01R	Pending geophysics	--	--	--	248.42	255	NA
GS-AP-MW-03V*	Installed	Pending	Pad & Bollards	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V*	Ongoing	--	--	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V*	Pending geophysics	--	--	--	360	335	NA
GS-AP-MW-36V*	Pending install	--	--	--	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H*	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA*	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V*	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
 * = Wells added to SOW per SCS addendum from August 2021
 ** = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 9/27/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

Finish setting well GS-AP-MW-23V (MW-23V), and begin setting well GS-AP-MW-36V (MW-36V)

Look Ahead:

Finish setting well GS-AP-MW-36V (MW-36V), and begin setting well GS-AP-MW-18VR (MW-18VR)

Conditions:

Weather: Sunny, (AM) 64° F, (PM) 82° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the MW-23V boring location and conduct JSA.

0755 – Cascade crew begins mixing grout for boring MW-23V.

0820 – SM leaves to show Greg Miller (GM, Alabama Power) where the abandoned well material is located for disposal.

0855 – Grouting complete, field crew begins breaking down rig to move to MW-36V.

0930 – SM arrives back at MW-23V.

0945 – Field crew begins mobilizing rig from MW-23V to MW-36V.

1145 – Drill rig is set up at MW-36V.

1245 – Cascade begins setting well MW-36V. Bottom of boring is 325.0 feet bgs, bentonite back fill from 320.3-325.0 feet bgs, sand from 303.6-320.3 feet bgs, screen interval set to 307-317.0 feet bgs.

1540 – Bentonite pellets placed from 299.5-303.6 feet bgs and left to hydrate for 4 hours. Field crew leave for laydown, to check well supplies.

1630 – SM collects post-job JSAs. Field Crew exit the site.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

10/5/21

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	28.50	3.0	NA	31.5
Stantec Field inspector (1)	9.50	1.25	1.0	11.75
Total				35.25

Safety/Environmental: Safe Driving Practices

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01R	Pending geophysics	--	--	--	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Pending install	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	Ongoing	--	--	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending geophysics	--	--	--	360	335	NA
GS-AP-MW-36V^	Pending install	--	--	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
 ^ = Wells added to SOW per SCS addendum from August 2021
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 9/28/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

Finish setting well GS-AP-MW-36V (MW-36V), and begin setting well GS-AP-MW-18VR (MW-18VR)

Look Ahead:

Finish setting well GS-AP-MW-18VR (MW-18VR) and move rig to well GS-AP-MW-31V (MW-31V).

Conditions:

Weather: Sunny, (AM) 67° F, (PM) 88° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the laydown yard to collect supplies then head to MW-18R boring location and conduct JSA. Shannon McDonald (SM-SCS) and Davis Crocker (DC, Golder) arrive at MW-1R and conduct JSA.

0750 – AS, SM, DW, TW and CT arrive at MW-36V.

0815 – Cascade crew begins mixing grout for boring MW-36V.

1040 – 360 gallons of grout were used for boring MW-36V, Field crew begins backing up.

1230 – Arrive at MW-18VR.

1325 – Cascade begins setting well MW-18VR. Bottom of boring is 220.0 feet bgs, sand from 204.8-220.0 feet bgs, screen interval set to 207-217.0 feet bgs.

1425 – Bentonite pellets placed from 201.0-204.8 feet bgs and left to hydrate for 4 hours.

1515 – Field crew heads to dispose of well abandonment material in roll off dumpster in security parking lot.

1630 – SM collects post-job JSAs. Field Crew exit the site.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	28.50	3.0	NA	31.5
Stantec Field inspector (1)	9.50	1.25	1.0	11.75
Total				35.25

Safety/Environmental: Safe Driving Practices

10/5/21

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01R	Pending install	--	--	--	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	Installed	--	--	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	--	--	360	335	NA
GS-AP-MW-36V^	Installed	--	Pending	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
^ = Wells added to SOW per SCS addendum from August 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 9/29/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 12/18

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

Grout well GS-AP-MW-18VR (MW-18VR)

Look Ahead:

Finish setting well GS-AP-MW-18VR (MW-18VR)

Conditions:

Weather: Sunny, (AM) 66° F, (PM) 84° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec), David Wilcox (DW-Cascade), Christopher Tindel (CT-Cascade), and Tyson Williams (TW-Cascade) arrive onsite at the laydown yard to collect supplies then head to MW-18VR boring location and conduct JSA. Shannon McDonald (SM-SCS) and Davis Crocker (DC, Golder) arrive at MW-18VR and conduct JSA.

0750 – AS, DW, TW and CT arrive at MW-18VR, SM is already there.

0815 – Cascade crew begins mixing grout for boring MW-18VR.

0950 – AS calls Greg Dyer (GD-Southern Company) about grout loss around 55 ft bgs, there are two fractures between 45-50 feet, Cascade uses bentonite chips to seal the fracture zone.

0950 – Field crew begins packing up and securing rig.

1145 – SM collects post-job JSAs. AS, DW, TW and CT demobilize from site. DC and SM are still onsite.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	14.25	18.0	NA	32.25
Stantec Field inspector (1)	4.75	4.0	2.0	10.75
Total				43.00

Safety/Environmental: Safe Driving Practices

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Comments:

10/5/21

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01R	Pending install	--	--	--	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	--	Pending	207-217	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	Installed	--	--	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	--	--	360	335	NA
GS-AP-MW-36V^	Installed	--	Pending	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
 ^ = Wells added to SOW per SCS addendum from August 2021
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 10/04/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 15/18

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-01R (MW-01R)

Look Ahead:

Install MW-01R and hydrate bentonite plug, resume abandonments and installation activities of wells in progress.

Conditions:

Weather: Cloudy, (PM) 76° F

Access issues: None

Daily Activities:

1300 – David Wilcox (DW-Cascade) arrives onsite.

1315 – Shannon McDonald (SM-SCS) arrives onsite.

1330 – Tyson Williams (TW-Cascade) and Chris Tindell (CT-Cascade) arrive onsite.

1345 – Walker Padgett (WP-Stantec) arrives onsite at the GS-AP-MW-18VR well location. Field crew conducts pre-job discussion and fills out JSAs.

1415 – DW measures depth to the top of the bentonite plug added to the annulus of GS-AP-MW-18VR. Top of bentonite plug is tagged at a depth of 44.8 feet bgs. Cascade begins mixing grout to complete installation of MW-18VR.

1450 – Grouting is completed at well MW-18VR. Cascade begins breaking down the rig and work area in preparation of mobilization to boring MW-01R.

1530 – Cascade begins mobilizing the rig and support equipment to MW-01R.

1720 – The rig is set up on boring MW-01R and ready for well installation.

1730 – Field crew exits the site for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	12.5	18	NA	30.5
Stantec Field inspector (1)	3.75	4.5	1.0	9.25
Total	16.25	22.5	1	39.75

Safety/Environmental: Safe Driving Practices**Comments:****Attachment 1: Well Status**

Southern Company Services							
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment							
Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01R	Pending install	--	--	--	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	--	--	--	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	Installed	--	--	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	--	--	360	335	NA
GS-AP-MW-36V^	Pending install	--	--	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 10/05/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 15/18

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-01R (MW-01R)

Look Ahead:

Grout MW-01R, resume well installations and surface completions of remaining wells.

Conditions:

Weather: Cloudy, rainy, (AM) 63° F (PM) 77° F

Access issues: None

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Tyson Williams (TW-Cascade) and Chris Tindell (CT-Cascade) arrive onsite. Cascade visits lay-down yard to retrieve well completion materials.

0730 – Field crew conducts pre-job briefing

0745 – Cascade begins well installation procedures at MW-01R.

1010 – Well MW-01R is installed and the bentonite plug is hydrated. Well specs are as follows:

- Bentonite pellet backfill from 255.0 – 245.2 feet
- Sand filter pack 245.2 – 228.2 feet
- Well bottom cap at 241.4, top of screen at 231.0 feet
- Bentonite pellet plug 228.2 – 224.4 feet

1045 – TW and CT re-fill water tanks on the rig and the support truck. DW, WP, and SM visit GS-AP-MW-3V to drill a weep hole in the metal enclosure and add gravel inside the metal stick-up enclosure.

1115 – Cascade begins tracking the skid steer to GS-AP-MW-36V to dig out a form for the well pad and install metal traffic bollards.

1330 – Cascade tracks the skid steer to the lay-down yard and loads up grout to complete MW-01R.

1430 – weather stand down issued due to inclement weather in the area.

1600 – Weather stand-down lifted. Cascade begins tracking the skid steer and surface completion supplies to GS-AP-MW-23V.

1700 – Field crew exits the site through Gate 1.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3.5	NA	33.5
Stantec Field inspector (1)	10	1	1.0	12
Total	40	4.5	1	45.5

Safety/Environmental: Practice safe driving. Remain alert to inclement weather.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01R	Pending install	--	--	--	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	--	Pending	207-217	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	Installed	--	--	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	--	--	360	335	NA
GS-AP-MW-36V^	Installed	--	Pending	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	Abandoned	--	--	--	220	--	NA
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:
^ = Wells added to SOW per SCS addendum from August 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 10/06/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 16/18

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

Current Work Location:

GS-AP-MW-01H (MW-01H)

Look Ahead:

Resume well installations and surface completions of remaining wells.

Conditions:

Weather: Cloudy, occasional rain shower, (AM) 63° F (PM) 79° F

Access issues: None

Daily Activities:

0700 – Walker Padgett (WP-Stantec), Shannon McDonald (SM-SCS), David Wilcox (DW-Cascade), Tyson Williams (TW-Cascade) and Chris Tindell (CT-Cascade) arrive onsite. Field crew conducts pre-job brief and completes JSA forms.

0800 – Cascade begins grouting MW-01R. Grout density is measured at 10.0 lbs/gallon.

0945 – Grouting MW-01R is complete. A total of 315 gallons of grout was used to grout the annulus of MW-01R.

1020 – Cascade breaks down the rig in preparation of re-locating to the supplemental boring GS-AP-MW-01H in the MW-01 well area.

1205 – Cascade begins drilling MW-01H from ground surface using a 4" sonic core barrel and 6" drill casing. WP photographs and logs the recovered sonic cores.

1240-1300 – Greg Dyer (SCS) and ADEM representatives visit the MW-01H work area.

1440 – Boring MW-01H is advanced to a depth of 40 feet bgs and over-drilled with 7" sonic drill casing in preparation for air hammer drilling.

1500 – TW and CT exit the site to have a support vehicle inspected. WP, DW, and SM discuss the project look-ahead and tidy the site.

1530 – WP and DW unload core boxes in the lay-down yard.

1600 – WP, DW, and SM exit the lay-down yard

1615 – WP, DW, and SM exits the site through Gate 1.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	25.25	3.5	NA	28.75
Stantec Field inspector (1)	9.25	1	1.0	11.25
Total	34.5	4.5	1	40.0

Safety/Environmental: Practice safe driving. Remain alert to inclement weather.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01H^^	Ongoing	--	--	--	215	--	NA
GS-AP-MW-01R	Installed	Pending	Pending	--	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	--	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	165.0-175.0	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	86.0-96.0	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	198.0-208.0	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	--	Pending	207-217	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pending	112-102	212	120	NA
GS-AP-MW-23V^	Installed	--	--	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	Bollards only	--	360	335	NA
GS-AP-MW-36V^	Installed	--	Pending	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pending	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	--	--	--	195	216	Complete
GS-AP-MW-45HA^	Abandoned	--	--	--	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pending	247.0-257.0	265	265**	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

^^ = well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 10/07/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 16/17*

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

GS-AP-MW-01H (MW-01H)

Look Ahead:

Resume well installations and surface completions of remaining wells, resume drilling of MW-01H

Conditions:

Weather: Cloudy with drizzle to sunny, (AM) 65° F (PM) 79° F

Access issues: None

Daily Activities:

0700 – Walker Padgett (WP-Stantec), David Wilcox (DW-Cascade), and Logan Hall (LH-Cascade) arrive onsite.

0730 – Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) arrive onsite. SM assists LH with badging at the guard shack.

0800 – Field crew conducts pre-job brief. DW orients LH about the drill rig and boring MW-01H. TW and CT retrieve supplies for well pad installation at GS-AP-MW-36V (MW-36V).

0900 – CT and TW begin well pad and metal enclosure installation at MW-36V.

0915 – DW exits the site through gate 1.

1030 – MW-36V well pad and metal enclosure installation is completed. Cascade begins mobilizing equipment to MW-23V to install well bollards, well pad, and metal enclosure.

1200 – David Webb (DW-Stantec) at the security guard shack. SM meets him at the guard shack to get him badged and approved for access.

1315 – WP orients DW around the site. Cascade continues installation of pad and bollard at MW-23V.

1415 – MW-23V pad and bollard installation is completed. Cascade retrieves pad construction supplies and mobilizes to MW-18 series wells to begin installation of well pads and bollards.

1545 – Edgar Smith (ES-Stantec) arrives onsite. ES gets badged and approved for access at the security guard shack.

1615 – WP, DW, and ES visit boring areas across the site and WP briefs ES on status of MW-01H drilling.

1700 – Cascade personnel and SM exits the site.

1730 – WP, DW, ES exit the site.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (4)	39	4	NA	43
Stantec Field inspector (3)	17.75	13.5	4	35.25
Total	56.75	17.5	4	78.25

Safety/Environmental: Practice safe driving.

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01H [^]	Ongoing	--	--	--	215	--	NA
GS-AP-MW-01R	Pending install	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V [^]	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V [^]	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Pending	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V [^]	Pending install	--	Pending	--	360	335	NA
GS-AP-MW-36V [^]	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H [^]	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA [^]	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V [^]	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:
[^] = Wells added to SOW per SCS addendum from August 2021
[^] = well added to scope in October 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 10/08/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 16/17*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

MW-18 Series Wells & GS-AP-MW-27HR (MW-27HR)

Look Ahead:

Resume well installations, MW-01H, and continue surface completions of remaining wells,

Conditions:

Weather: Cloudy/foggy to sunny, (AM) 65° F (PM) 83° F

Access issues: None

Daily Activities:

0700 – David Webb (DW-Stantec), Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) arrive onsite.

0730 – Field crew conducts pre-job brief.

0800 – Cascade leaves to fill water tank and retrieve supplies for well pad installations at MW-18 Series location.

0810 – DW and SM travel to MW-18 Series location and wait for Cascade

0830 – Edgar Smith (ES-Stantec) arrives on site and signs in on JSA. ES, DW, and SM discuss plan for the day. Cascade and SM working on getting air compressor for drilling delivered by Saturday afternoon.

0900 – Cascade begins well pad construction on MW-18R

0945 – DW takes water level and total depth measurements on MW-18R and PZ-18V.

1000 – Cascade completes pad construction on MW-18VR, begin work on PZ-18V.

1040 – ES and SM leave to meet Greg Budd (GB-SCS) at Plant Gorgas Gypsum Pond to inspect new well locations.

1114 – Cascade set bollards at PZ-18VR, insufficient concrete to complete pad, Cascade loads up equipment to switch to air lifting of wells, leave MW-18 Series area and head to laydown yard.

1211 – Cascade and DW arrive at laydown yard and prep for air lifting at MW-27HR then head to MW-27HR to set up when SM returns.

1323 – ES and GB arrive back at MW-27HR, discuss air lifting with LH, Cascade sets up to begin air lifting.

1338 – GB leaves site, Cascade begins air lifting activities.

1352 – First water produced from MW-27HR is dark gray, very cloudy and has strong sulfurous odor.
 1640 – Decision made to pause air lifting and allow well to recover overnight. Secure area and conduct post job safety discussions. Air compressor for drilling expected by 1200 Saturday, will continue air lifting until it arrives.
 1715 – Cascade, SM, DW, and ES leave site for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (2)	18	6	3.75	27.75
Total	48.75	9	3.75	61.5

Safety/Environmental: Practice safe driving on narrow roads and fog.

Comments:

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01H^	Ongoing	--	--	--	215	--	NA
GS-AP-MW-01R	Pending install	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Pending	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	Pending	--	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Saturday, 10/09/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 16/17*

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 0/18

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

GS-AP-MW-27HR (MW-27HR) and GS-AP-MW-01H (MW-01H)

Look Ahead:

Drill and construct GS-AP-MW-01H.

Conditions:

Weather: Sunny with fog in the morning, (AM) 65° F (PM) 87° F

Access issues: None

Daily Activities:

0700 – David Webb (DW-Stantec), Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) arrive onsite in parking lot at Security Gate. Field crew conducts pre-job brief.

0715 – Depart parking lot and drive to MW-27HR to continue air lifting.

0739 – Arrive at MW-27HR, DW takes DTW measurement (WL = 163.84' BTOC)

0750 – Cascade starts air compressor for air lifting. First water purge is cloudy, estimated initial output is 4 gallons.

0817 – Stop air lifting, final water is still cloudy.

0820 – DW begins taking recovery measurements.

0835 – Cascade begins disassembling the air lifting equipment.

0855 – Drilling air compressor delivery notification received has arrived, Leave MW-27HR area and head to retrieve compressor. SM contacts Edgar Smith (ES-Stantec) to inform him compressor will be on site in 20 minutes.

0916 – Cascade takes possession of air compressor.

0940 – Cascade discovers that a fitting is missing for the air compressor begin looking for fitting.

1000 – Cascade locates needed fitting begin moving compressor to MW-01H area.

1030 – ES arrives onsite and signs into the JSA, Cascade still mobilizing water and drilling supplies to the area.

1145 – Cascade begins air hammer drilling at 40' BGS, ES begins logging boring on pLog tablet.

1642 – Drilling halted at 190' BGS. Borehole area secured for the overnight. DW and ES conduct post job JSA review.

1700 – Cascade, DW, ES, and SM leave site for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (2)	16.5	2	7	25.5
Total	46.5	5	7	58.5

Safety/Environmental: Driller is new to air hammer so take things slowly in the beginning.

Comments:

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01H [^]	Ongoing	--	--	--	215	--	NA
GS-AP-MW-01R	Pending install	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V [^]	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V [^]	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V [^]	Pending install	--	Pending	--	360	335	NA
GS-AP-MW-36V [^]	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H [^]	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA [^]	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V [^]	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:

[^]= Wells added to SOW per SCS addendum from August 2021

[^]= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Sunday, 10/10/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 17/17*

Monitoring Well Abandonments Completed / Proposed = 5/6

Monitoring Well Preliminary Development Completed Proposed 1/17*

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

GS-AP-MW-01H (MW-01H) and GS-AP-MW-11R (MW-11R)

Look Ahead:

Construct GS-AP-MW-01H and air lift MW-11R.

Conditions:

Weather: Sunny with fog in the morning, (AM) 65° F (PM) 87° F

Access issues: None

Daily Activities:

0700 – David Webb (DW-Stantec), Edgar Smith (ES-Stantec), Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) arrive onsite and travel to MW-01H area.

0715 – Field crew conducts JSA pre-job briefs.

0747 Cascade tags TD of borehole from ground surface (190' BGS)

0755 – Resume drilling, Pratt Coal seam encountered from 196'-200' BGS, Nickel Plate from 209' to 212.5' BGS.

0840 – Terminate drilling at 218' BGS and contact Greg Dyer (GD-SCS) regarding screen interval and construction of well.

0936 – Greg Budd (GB-SCS) calls ES and suggests conducting a rising head test (RHT) while waiting on response from GD.

0959 – Cascade sets up to blow out bore hole for RHT.

1005 – 1010 Cascade conducts blow out for RHT then begins tripping rods out of borehole.

1033 – Rods tripped out of hole. DW begins taking measurements for RHT.

1035 – ES talks to GD about well construction. Screen interval to be set from 215' to 194' BGS with three feet of sand above and below the screen interval.

1044 – ES lets DW know to halt RHT and have Cascade begin constructing the well.

1117 – DW tags bottom of hole at 218.75'

1235 – MW-01H is installed and the bentonite plug is hydrated. Begin four-hour hydration period. Well specs are as follows:

- Sand filter pack 218.8' – 191.0'

- Well bottom cap at 215.4', bottom of screen at 215.0', top of screen at 194.0 feet
- Bentonite pellet plug 191.0' – 186.6'

1247 – Area secured for the day, Stantec and Cascade head to laydown area to prepare for air lifting MW-11R. SM heads to Construction trailer to work on paperwork.

1314 – Cascade takes lunch break, ES and DW inspect core boxes.

1330 – Cascade begins setting up to air lift MW-11R.

1414 – Begin air lift on MW-11R. DW collects samples of purge water to observe improvements during air lifting process. First purge of water is light tan and very cloudy with a sulfurous odor.

1444 – Cascade conducts cycles of air lift and water to drop back down well casing to surge screen interval followed by air lift purge and pause for recharge.

1519 – Cascade completes air lifting MW-11R, three cycles conducted final purged water is clear with slight sulfurous odor.

1520 – Cascade begins taking pea gravel to wells to fill pro-covers, including well north of dam area, MW-36V, and MW-18VR.

1640 – Conduct end of day JSA reviews and leave MW-18 series area.

1700 – Offsite for the day

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (2)	20	2	3	25
Total	50	5	3	58

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments:

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	--	NA	NA	NA	NA	NA	In Progress
GS-AP-MW-01H^	Pending install	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Pending install	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	Pending	--	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 10/11/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 17/17*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 1/17*

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

GS-AP-MW-01H (MW-01H) and GS-AP-MW-31V (MW-31V)

Look Ahead:

Grout MW-01H and construct MW-31V.

Conditions:

Weather: Sunny with fog in the morning, (AM) 65° F (PM) 87° F

Access issues: None

Daily Activities:

0700 – David Webb (DW-Stantec), Edgar Smith (ES-Stantec), Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) arrive onsite and travel to laydown yard.

0720 – Field crew conducts JSA pre-job briefs.

0730 – Cascade loads grouting supplies to grout annulus of MW-01H, top off grout in annulus of MW-01R, and complete abandonment of MW-01. DW and ES prepare to sort and complete labeling of core boxes.

0750 – Cascade and SM leave laydown yard and head to MW-1H to begin preparing to grout. DW and ES continue to organize core boxes.

0900 – DW and ES complete organizing core boxes and head to MW-01H, SM calls to indicate that Cascade is ready to begin mixing grout.

0924 – DW and ES arrive at MW-1H, Cascade is currently mixing grout ~~Resume drilling, Fratt Coal seam encountered from 196' 200' BGS, Nickel Plate from 209' to 212.5' BGS.~~ SHM

0935 – DW measures depth to the top of the previously placed bentonite seal in the screen interval of MW-01 (83.3' BGS)

0953 – Cascade completes grouting MW-1H

0958 – Cascade extracting 7" surface casing from MW-1H.

1012 – Cascade begins grouting MW-01 to complete well abandonment.

1030 – Complete grouting for abandonment of MW-01.

1040 – Begin topping off grout in annulus of MW-01R.

1109 – Complete topping off grout in MW-01R. SM leaves to retrieve delivery for Cascade. Cascade

begins breaking down rig to relocate to MW-31V.

1156 – SM returns to MW-01H

1205 – SM drives to Construction Trailer to scan documents. DW and ES move to MW-31V and begin setting up equipment. Cascade takes lunch break.

1300 – SM calls to indicate she is headed to Gorgas Gypsum Pond to confirm boring locations prior to clearance of debris from area to allow for GPR.

1306 – Cascade arrives at MW-31V and begins setting up rig to build monitoring well.

1316 – DW takes depth to water measurement in MW-31V borehole (60.5' BGS) and takes total depth of borehole (335.5' BGS).

1350 – TG with Cascade leaves to retrieve PVC well materials from laydown yard.

1355 – SM arrives back at MW-31V.

1428 – ES signs off on JSA and leaves site for the day.

1445 – TG arrives back with PVC and bentonite pellets.

1450 – Cascade adds sand between screens on U-Pack screen.

1455 – Cascade backfills borehole with bentonite pellets to 329.2' BGS with bentonite pellets.

1515 – Cascade begins hanging well in borehole to allow placement of sand pack.

1543 – Finish hanging well in borehole, begin adding sand pack.

1555 – TG leaves for the laydown yard to pick up additional bags of sand.

1634 – TG arrives back, continue to add sand pack. Top of sand tagged at 311.5' BGS. DW calls ES to confirm that the additional sand volume is allowable. Cascade adds bentonite seal to borehole. Begin four-hour hydration period. Well specs are as follows:

- Bentonite pellet backfill 335.5' – 329.2'
- Sand filter pack 329.2' – 311.5' 325.0' - SHM
- Well bottom cap at 325.4', bottom of screen at ~~225.0'~~, top of screen at 315.0 feet
- Bentonite pellet plug 311.5' – 307.6'

1700 – Conduct end of day JSA reviews.

1710 – DW, SM, and Cascade leave site for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3	NA	33.75
Stantec Field inspector (2)	17.75	2.25	5.5	25.5
Total	48.5	5.25	5.5	59.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H^^	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R	Installed	Pending	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 10/12/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 17/17*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 1/17*

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

GS-AP-MW-31V (MW-31V), GS-AP-MW-27HR (MW-27HR), and GS-AP-MW-10R (MW-10R)

Look Ahead:

Continue air lift preliminary development of monitoring wells.

Conditions:

Weather: Sunny with fog in the morning, (AM) 72° F (PM) 84° F

Access issues: None

Daily Activities:

0705 – David Webb (DW-Stantec), Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) arrive onsite at location of MW-31V and conduct JSA pre-job discussions. Begin setting up to grout annulus of borehole.

0710 – TG with Cascade leaves to fill water tank.

0740 – Cascade tags top of Bentonite at 307.5' BGS. TG arrives back with filled water tank.

0748 – Cascade begins stringing together tremie pipe.

0813 – Tremie pipe in place, begin mixing grout.

0820 – DW tests density of first batch of grout, initial density is 9.7 lb/gal, Cascade adds additional dry grout and remixes, second measurement is 10.0 lb/gal.

0836 – DW tests density of second batch of grout, initial density is 10.1 lb/gal.

0847 – DW tests density of third batch of grout, initial density is 10.1 lb/gal.

0855 – DW tests density of fourth batch of grout, initial density is 10.1 lb/gal.

0905 – DW tests density of fifth batch of grout, initial density is 9.7 lb/gal, Cascade adds additional dry grout and remixes, second measurement is 10.0 lb/gal.

0918 – DW tests density of sixth batch of grout, initial density is 9.7 lb/gal, Cascade adds additional dry grout and remixes, second measurement is 10.1 lb/gal.

0930 – DW tests density of seventh batch of grout, initial density is 9.7 lb/gal, Cascade adds additional dry grout and remixes, second measurement is 10.2 lb/gal.

0950 – DW tests density of eight batch of grout, initial density is 9.7 lb/gal, Cascade adds additional dry grout and remixes, second measurement is 9.8 lb/gal, additional dry grout added and remixed, third measurement is 10.0 lb/gal.

1015 – DW tests density of ninth batch of grout, initial density is 10.2 lb/gal.
 1028 – Cascade begins removing surface casing from borehole.
 1052 – DW tests density of tenth batch of grout, initial density is 10.0 lb/gal.
 1056 – DW measures return grout density at 9.9 lb/gal. Installation of MW-31V complete, begin breaking down drill rig.
 1115 – DW measures depth to water in MW-31V at 88.60' BGS.
 1130 – DW calls ES, plan is set to begin air lifting wells again starting with one additional attempt at MW-27HR.
 1214 – DW, SM, and Cascade leave MW-31V area and head to laydown yard to pick up air compressor for air lifting.
 1238 – Arrive at MW-27HR, DW attempts to take depth to water measurement; however, both water level meters appear to be malfunctioning and are not able to record accurate depth to water.
 1255 – Cascade begins setting up to air lift MW-27HR.
 1316 – Start air compressor and begin air lifting, First purge water is white and cloudy with a strong sulfurous odor
 1414 – Shut off air compressor and allow for well recharge, last water still white and cloudy.
 1430 – Begin air lifting again, first water is darker, gray tan, moderately cloudy.
 1455 – Shut off compressor and allow for recharge.
 1510 – Restart air lifting water is same in appearance as before.
 1520 – Halt air lifting activities, breakdown equipment to move to MW-10R.
 1549 – Arrive at MW-10R, DW takes depth to groundwater (144.94' from TOC) and total depth of well (212.10' from TOC).
 1625 – Start air compressor and air lifting of MW10R.
 1635 – Air lift/surge and drop water column two times on MW-10R. Purge water from well with air lifting, first water is light gray and cloudy.
 1645 – Conduct end of day JSA reviews.
 1700 – DW, SM, and Cascade leave site for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3	NA	33
Stantec Field inspector (1)	10	1	4.5	15.5
Total	40	4	4.5	48.5

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H [^]	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V [^]	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R [†]	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R [†]	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V [^]	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR [†]	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V [^]	Pending install	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V [^]	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H [^]	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA [^]	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V [^]	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:

[^]= Wells added to SOW per SCS addendum from August 2021

[^]= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

[†] = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 10/13/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 17/17*

Monitoring Well Abandonments Completed / Proposed = 6/6 4

Monitoring Well Preliminary Development Completed Proposed ~~17~~17*

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

GS-AP-MW-10R (MW-10R) and GS-AP-MW-05R (MW-05R)

Look Ahead:

Continue air lift preliminary development of monitoring wells.

Conditions:

Weather: Sunny, (AM) 66° F (PM) 84° F

Access issues: None

Daily Activities:

0700 – David Webb (DW-Stantec) arrives on site.

0710 – DW arrives at MW-10R, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions. Begin setting up to continue air lifting.

0732 – Begin air lifting.

1047 – Initial purge water after surging is slightly cloudy. Samples collected for observation and description on 10/12/21 shows minimal heavy sediment and a relatively large amount of what appears to be a white precipitate material.

0815 – Stop air lift, samples collected stayed consistent at a cloudy white appearance with sulfurous odor. Cloudy appearance could be due to precipitate. No presence of heavy sediment.

0934 – SM leaves to help direct GPR clearance of drilling areas at Gypsum Pond. DW and Cascade move to MW-05R for air lifting.

0845 – DW and Cascade arrive at MW-05R and set up for air lifting.

0902 – Begin air lifting.

0913 – First purge water after surging is cloudy, tan/white in color. Medium strong organic odor present. 0915 – Well is dry, pause air lifting to allow to recharge.

0930 – Resume air lifting.

0942 – Pause air lifting well is dry, purge water was light tan in color.

0955 – DW begins taking depth to water measurements to determine recharge rate. Begins at depth of 152.0' BTOC

1040 – DW measures apparent static depth to water (145.5' BTOC).

1045 – Resume air lift surging of well.

1100 – Stop air lifting, well is dry. Last purged water was white and cloudy with an organic/sulfurous odor.

1108 – SM and Cascade leave to move materials to the laydown area. DW travels to MW-31V location to store equipment in Cascade box truck between rotations.

1120 – DW arrives at MW-31V and meets Edgar Smith (ES-Stantec) at MW-31V. DW and ES load equipment into box truck and discuss work for next rotation.

1130 – Cascade leave for the day.

1133 – SM arrives at MW-31V and discussed next rotation workload with DW and ES.

12:00 – ES, DW, and SM leave MW-31V and depart site.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	13.5	21	NA	34.5
Stantec Field inspector (2)	6	10	4	20
Total	19.5	31	4	54.5

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments:

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H^	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Pending install	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

**Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment**

Work Date: Monday, 10/18/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/18*

Monitoring Well Abandonments Completed / Proposed = 6/6 **4**

Monitoring Well Preliminary Development Completed Proposed ~~17~~18*

Gypsum Piezometer Completion 0/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

GS-AP-MW-31V (MW-31V) and GS-GSA-PZ-23 (PZ-23)

Look Ahead:

Begin boring of GS-GSA-PZ-23 (PZ-23).

Conditions:

Weather: Sunny, 68-72° F

Access issues: None

Daily Activities:

1420 – Andrew Stevens (AS-Stantec) arrives at MW-31V.

1430 – Shannon McDonald (SM-SCS) arrives at MW-31V.

1445 – Logan Hall (LH-Cascade), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) arrive at MW-31V. Conduct JSA pre-job discussions. Begin mobilizing rig to Gorgas Gypsum Pond area, GS-GSA-PZ-23.

1530 – Arrive at GS-GSA-PZ-23. Cascade crew head back to site to continue mobilization of drill rig.

1720 – Rig mobilized to GS-GSA-PZ-23; field crews conduct post job.

1730 – Crew is offsite for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	8.25	21	NA	29.25
Stantec Field inspector (1)	3	5	1	9
Total				38.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Sharon McDonald 10/27/21
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Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H ^m	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V ^a	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R [†]	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R [†]	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V ^a	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR [†]	Installed	Ongoing	Pad & Bollards	287.0-277.0	335.91	300	NA
GS-AP-MW-31V ^a	Pending install	-	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V ^a	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H ^a	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA ^a	Abandoned	NA	NA	NA	220	-	Complete
GS-AP-MW-45V ^a	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA

Notes:

^a = Wells added to SOW per SCS addendum from August 2021

^m = well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

[†] = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 10/19/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/18*

Monitoring Well Abandonments Completed / Proposed = 6/6 **4**

Monitoring Well Preliminary Development Completed Proposed ~~18~~18*

Gypsum Piezometer Completion 0/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Begin boring of GS-GSA-PZ-23 (PZ-23).

Look Ahead:

Finish boring of GS-GSA-PZ-23 (PZ-23).

Conditions:

Weather: Sunny, 50-73° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrives at MW-31V, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions.

0730 – Begin setting up setting up drill rig to begin drilling GS-GSA-PZ-23.

0945 – Cascade begins drilling GS-GSA-PZ-23 from ground surface using a 4" sonic core barrel and 7" drill casing. AS photographs and logs the recovered sonic cores.

1100 – Drill down due to bolts breaking on drill rig, cascade begins drill maintenance.

1150 – Maintenance complete drilling resumes.

1305 – Drilling paused; field crew leave to unload core boxes at the Gypsum Storage Area Laydown area.

1400 – Field crew arrive back at GS-GSA-PZ-23, drilling resumes.

1700 – Boring GS-GSA-PZ-23 is advanced to a depth of 70 feet bgs and over-drilled with 7" sonic drill casing in preparation for air hammer drilling.

1710 – Field Crew conduct post job and are offsite for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field inspector (1)	10.25	1.25	1	12.5
Total				46.25

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Alan McDonald 10/27/21
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Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H**	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V**	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-16*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-16*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V**	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V**	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V**	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H†	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V**	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22**	--	--	--	--	70	--	NA
GS-GSA-PZ-23**	Ongoing	--	--	--	130-230	70	NA
GS-GSA-PZ-24**	--	--	--	--	70	--	NA
GS-GSA-PZ-25**	--	--	--	--	130-230	--	NA

Notes:

^ = Wells added to SDW per SCS addendum from August 2021

** = well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 10/20/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/18*

Monitoring Well Abandonments Completed / Proposed = 6/6 4

Monitoring Well Preliminary Development Completed Proposed 17*

Gypsum Piezometer Completion 0/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Begin boring of GS-GSA-PZ-23 (PZ-23).

Look Ahead:

Abandon boring of GS-GSA-PZ-23 (PZ-23) and move to GS-GSA-PZ-25 (PZ-25)

Conditions:

Weather: Sunny, 55-81° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-GSA-PZ-23, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions.

0735 – Cascade begins pulling 2" rods and switching to Air Hammer.

0945 – Start Air Hammering GS-GSA-PZ-23, American Coal seam encountered from 99-104' BGS.

1055 – Boring set to recharge.

1110 – Little water discharged after 15 minutes. Cascade begin pulling 2" rods, so AS can conduct recharge test.

1130 – Recharge test halted due to unstable well. Field crew waits until well stabilizes.

1215 – AS calls Greg Dyer (GD-Southern Company) about unstable well. GD suggests to abandon GS-GSA-PZ-23. Drill crew begins breaking down 2" rods. Decision made to additionally remove GS-GSA-PZ-22 from the installation schedule due to subsurface conditions encountered in PZ-23.

1230 – Cascade leaves to grab well abandonment supplies from laydown yard at Rattlesnake Lake.

1340 – Cascade crew arrives back at GS-GSA-PZ-23 and begin mixing grout. 5 batches mixed, 7" casing pulled to 35' BGS. Grout fell to 60' BGS.

1430 – Cascade pour 14 bags of holeplug to try and stabilize boring. Holeplug set to 57.5 feet bgs.

1620 – Cascade crew head to laydown yard at Rattlesnake Lake to pick up more holeplug. AS and SM leave to begin abandonment of PZ-03.

1625 – AS and SM tag DTW and TD of PZ-03. DTW is 114.8 bgs and TD 120.4 bgs. Due to unknown screen

interval AS and SM pour 25 feet of bentonite pellets. pellets set to 95 feet bgs.

1700 – Field Crew conduct post job and are offsite for the day.

Reviewed by SCS-CFS:	S.McDonald	Date/Signature:	Chavez/McDonald 10/21/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.00	3.0	NA	33.00
Stantec Field inspector (1)	10.00	1.25	1	12.25
Total				45.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments:

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H**	Installed	Pending	Pending	194.0 - 215.0	215	216.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V**	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V**	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V**	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V**	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H*	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V**	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22**	Abandoned	NA	NA	NA	70	NA	NA
GS-GSA-PZ-23**	Ongoing	NA	NA	NA	130-230	110	NA
GS-GSA-PZ-24**	--	--	--	--	70	--	NA
GS-GSA-PZ-25**	--	--	--	--	130-230	--	NA

Notes:
 * = Wells added to SOW per SCS addendum from August 2021
 ** = well added to scope in October 2021
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 † = After multiple air lift attempts well is not significantly cleaner
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 10/21/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/18*

Monitoring Well Abandonments Completed / Proposed = 6/6 4

Monitoring Well Preliminary Development Completed Proposed 18*

Gypsum Piezometer Completion 0/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Abandon boring of GS-GSA-PZ-23 (PZ-23) and move to GS-GSA-PZ-25 (PZ-25)

Look Ahead:

Begin boring GS-GSA-PZ-25 (PZ-25).

Conditions:

Weather: Overcast with Scattered storms, 70-81° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-GSA-PZ-23, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Field crew is on Lightning stand down.

0730 – All clear. Field crew begins JSA and begin pouring 3 more bags of holeplug at GS-GSA-PZ-23.

0800 – Holeplug at 57.5' BGS. AS calls Greg Dyer (GD-Southern Company) about plugging 53' BGS due to potential mine shaft. GD give the go ahead to use a spider plug.

0810 – LH leaves to get material to plug boring. AS, SM TW and CT leave to grout PZ-03.

0815 – AS, SM TW and CT arrive at PZ-03 begin mixing grout.

0850 – Grout is too thick to go through the trimmie pipe without a pump. TW and CT leave to get more holeplug. AS and SM leave for GS-GSA-PZ-23.

0940 – TW and CT arrive at GS-GSA-PZ-23 with holeplug.

0950 – LH arrives at GS-GSA-PZ-23.

1015 – Cascade begins pulling 7" steel casing, makeshift plug did not set.

1045 – Cascade crew pours 12 more bags of holeplug. Holeplug not rising, field crew begin demobilizing rig until spider plugs arrive.

1300 – Crew leave to head to the gate at Rattlesnake Lake to unload shipment of well supplies.

1420 – Cascade begin setting up rig at GS-GSA-PZ-25.

1515 – Cascade begins drilling GS-GSA-PZ-25 from ground surface using a 4" sonic core barrel and 6" drill casing. AS photographs and logs the recovered sonic cores.

1540 – Drill rig down, 2" rod snapped. Cascade crew begin switching 2" rods.

1600 – Drilling resumes.

1650 – Drill down due to bolts breaking on drill rig, cascade begins drill maintenance. Boring depth is 16.0' BGS.

1715 – Field Crew conduct post job and are offsite for the day.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shawneigh McDonald 10/21/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field inspector (1)	10.25	1.25	1	12.5
Total				46.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments: PZ-23 not able to be abandoned with Grout and Holeplug.

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H**	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V*	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V*	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V*	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V*	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H*	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V*	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22**	Abandoned	NA	NA	NA	70	NA	NA
GS-GSA-PZ-23**	Ongoing	NA	NA	NA	130-230	110	NA
GS-GSA-PZ-24**	--	--	--	--	70	--	NA
GS-GSA-PZ-25**	Ongoing	NA	NA	NA	130-230	41	NA

Notes:
 * = Wells added to SDW per SCS addendum from August 2021
 ** = well added to scope in October 2021
 * = MW to be Abandoned
 ** = Interim depth of boring pending Geophysics data review
 † = After multiple air lift attempts well is not significantly clearer
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 10/22/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/18*

Monitoring Well Abandonments Completed / Proposed = 6/6 4

Monitoring Well Preliminary Development Completed Proposed 18*

Gypsum Piezometer Completion 0/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Boring GS-GSA-PZ-25 (PZ-25) and Airlift GS-AP-MW-23 (MW-23)

Look Ahead:

Finish setting of GS-GSA-PZ-25 (PZ-25) and move to GS-GSA-PZ-24 (PZ-24)

Conditions:

Weather: Overcast, 68-75° F

Access Issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-GSA-PZ-25, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions.

0730 – Cascade replaces bolts on drill head.

0750 – Drilling resumes at boring GS-GSA-PZ-25.

1030 – Boring drilled to 66' BGS. AS calls Greg Dyer (GD-Southern Company) about potential setting well in the Pratt Coal seam 51-54' BGS, instead of going deeper. GD agrees GS-GSA-PZ-24 new target depth is the American Coal Seam ~120' BGS.

1255 – GS-GSA-PZ-25 is installed and the bentonite plug is hydrated. Begin four hour hydration period.

Well specs are as follows:

- Sand filter pack 46.2– 62.1'
- Well bottom cap at 59.4', bottom of screen at 59.0', top of screen at 49.0 feet
- Bentonite pellet plug 46.2 – 42.0'

Field crew leave to begin Air Lifting GS-AP-MW-23.

1415 – DTW 43.3' feet bgs. Airlift begins.

1450 – AS calls David Webb (DW-Stantec) about very fine particulates in purge water. DW suggest continuing to surge and airlift.

1640 – Airlifting complete for GS-AP-MW-23.

1715 – Field Crew conduct post job and are offsite for the day.

Reviewed by SCS-CFS:		Date/Signature:	
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field inspector (1)	10.25	1.25	1	12.5
Total				46.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H**	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V**	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Pending	Pad & Bollards	165.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V**	Installed	Pending	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V**	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V**	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H*	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V**	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22***	Abandoned	NA	NA	NA	70	NA	NA
GS-GSA-PZ-23***	Ongoing	NA	NA	NA	130-230	110	NA
GS-GSA-PZ-24***	--	--	--	--	70	--	NA
GS-GSA-PZ-25***	Installed	Pending	Pending	49.0-59.0	130-230	66	NA

Notes:
 ** = Wells added to SDW per SCS addendum from August 2021
 *** = well added to scope in October 2021
 * = MW to be Abandoned
 ** = interim depth of boring pending Geophysics data review
 † = After multiple air lift attempts well is not significantly clearer
 † installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Saturday, 10/23/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/18*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed ⁵18*

Gypsum Piezometer Completion 1/1

Gypsum Piezometer to be Abandoned 1/3

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Finish setting of GS-GSA-PZ-25 (PZ-25) and move to GS-GSA-PZ-24 (PZ-24)

Look Ahead:

Airlift and abandon PZs

Conditions:

Weather: Overcast, 65-75° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-GSA-PZ-25, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions.

0740 – LH begins warming up drill rig.

0755 – Cascade pull 10' of 7" steel casing. Bentonite seal 41.9' BGS.

0815 – Cascade begins mixing Aquaguard grout. First batch is 10.5 lbs.

0900 – 7" steel casing removed from GS-GSA-PZ-25. Cascade begins breaking down rig to move to GS-GSA-PZ-24.

1010 – Cascade begins drilling GS-GSA-PZ-24 from ground surface using a 4" sonic core barrel and 6" drill casing. AS photographs and logs the recovered sonic cores.

1400 – Begin overdrilling with 7" steel casing.

1450 – During 7" overdrill, 6" casing fell 9' from 46' to 55' BGS. AS calls Greg Dyer (GD-Southern Company) about mine void from 47-51' BGS. GD suggest potentially abandoning well.

1530 – AS asks Cascade to drill from 46-51' to try to see if there is a coal seam present. No coal present, Field crew begins well abandonment of GS-GSA-PZ-24. AS tags DTW at PZ-25 at 50.13' BGS.

1615 – Cascade begins pulling 4"x6" casing and sampling core barrel.

1700 – Field Crew conduct post job and are offsite for the day.

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	Shanel McDonald 10/21/21
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.00	3.0	NA	33.00
Stantec Field inspector (1)	10.00	1.25	1	12.25
Total				45.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
SS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
SS-AP-MW-01H**	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
SS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
SS-AP-MW-03V**	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
SS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
SS-AP-MW-09R	Installed	Pending	Pad & Bollards	85.6 - 95.6	160	140	NA
SS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
SS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
SS-AP-MW-13R	Installed	Pending	Pad & Bollards	155.0-165.0	222	180	NA
SS-AP-MW-14R	Installed	Pending	Pad & Bollards	189.0-199.0	254.19	210	NA
SS-AP-MW-16*	Abandoned	NA	NA	NA	NA	NA	Complete
SS-AP-MW-16R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
SS-AP-MW-16V*	Abandoned	NA	NA	NA	NA	NA	Complete
SS-AP-MW-16VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
SS-AP-P2-16*	Abandoned	NA	NA	NA	NA	NA	Complete
SS-AP-P2-16R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
SS-AP-MW-23V**	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
SS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
SS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
SS-AP-MW-31V**	Installed	--	Pending	315.0 - 325.0	360	335	NA
SS-AP-MW-36V**	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
SS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
SS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
SS-AP-MW-45H*	Abandoned	NA	NA	NA	195	216	Complete
SS-AP-MW-45HA	Abandoned	NA	NA	NA	220	--	Complete
SS-AP-MW-45V**	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
SS-GSA-PZ-22***	Ongoing	NA	NA	NA	70	NA	NA
SS-GSA-PZ-23***	Ongoing	NA	NA	NA	130-230	110	NA
SS-GSA-PZ-24***	Ongoing	NA	NA	NA	70	51	NA
SS-GSA-PZ-25***	Installed	Pending	Pending	49.0-59.0	130-230	66	NA

Notes:
 * = Wells added to SDI w/ per SCS addendum from August 2021
 ** = well added to scope in October 2021
 † = MW to be Abandoned
 *** = Interim depth of boring pending Geophysics data review
 ‡ = After multiple air lift attempts well is not significantly clearer
 Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Sunday, 10/24/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/18*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 4/17*

Gypsum Piezometer Completion 1/1

Gypsum Piezometer Completion Gypsum Piezometer Completion 1/3

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Airlift MW-9R, MW-13R and MW-14R and start abandoning PZ-24 and PZ-23

Look Ahead:

Abandon PZ-24, PZ-23 and PZ-03 and build pads.

Conditions:

Weather: Overcast, 68-75° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-GSA-PZ-24, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions.

0720 – AS get DTW of PZ-25. DTW is 52.1' BGS.

0750 – Field crew leaves GS-GSA-PZ-25 to start air lifting while TW leaves site to pick up spider plugs.

0830 – Arrive at GS-AP-MW-9R to set up air lift development.

-TD: 98.5' BGS

-DTW: 60.02' BGS

0850 – Air lift begins at MW-9R. good water column, starting turbidity is cloudy.

1005 – Airlift complete. LH and CT begin breaking down equipment and head back to GS-GSA-PZ-24.

1115 – AS, SM, LH and CT arrive at GS-GSA-PZ-24 and are waiting for TW to arrive with the spider plugs.

1130 – TW arrives at GS-GSA-PZ-24.

1140 – Spider plug set at 43' BGS, Cascade pores 1 bag of holeplug to 39.0 and adds water to let it hydrate. AS suggests minimum of 4-hour hydration.

1205 – Field crew arrives at GS-GSA-PZ-23 to abandon using a spider plug. Spider plug set to 51.5' BGS. Cascade pores 1 bag of holeplug to 49.0 and adds water to let it hydrate. AS suggests minimum of 4-hour hydration.

1320 – Arrive at GS-AP-MW-13R to set up air lift development.

-TD: 167.9' BGS

-DTW: 92.12' BGS

1340 – Air lift begins at MW-13R. good water column, starting turbidity is cloudy. Rotten egg like smell.

1450 – Airlift complete.

1500 – Arrive at GS-AP-MW-14R to set up air lift development.

-TD: 201.3 BGS

-DTW: 42.15 BGS

1520 – Air lift begins at MW-14R. good water column, starting turbidity is clear. Rotten egg like smell.

1625 – Airlift complete.

1650 – Field Crew conduct post job and are offsite for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.00	3.0	NA	33.00
Stantec Field inspector (1)	10.00	1.25	1	12.25
Total				45.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H^^	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^	Ongoing	NA	NA	NA	70	NA	NA
GS-GSA-PZ-23^^	Ongoing	NA	NA	NA	130-230	110	NA
GS-GSA-PZ-24^^	Ongoing	NA	NA	NA	70	51	NA
GS-GSA-PZ-25^^	Installed	Pending	Pending	49.0-59.0	130-230	66	NA

Notes:
^ = Wells added to SDW per SCS addendum from August 2021
^^ = well added to scope in October 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
† = After multiple air lift attempts well is not significantly clearer
/Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 10/25/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/19*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 4/19*

Gypsum Piezometer Completion 1/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Grout PZ-24, PZ-23 and PZ-03 and begin drilling GS-AP-MW-47

Look Ahead:

Finish Drilling GS-AP-MW-47

Conditions:

Weather: Overcast, 64-76° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-GSA-PZ-24, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions.

0720 – AS get DTW of PZ-25. DTW is 55.71' BGS. Cascade begins setting up to grout GS-GSA-PZ-24.

0750 – Cascade crew begin mixing and pouring grout in PZ-24 for abandonment. 1.5 batches mixed, grout density is 10.3 and grout set to surface.

1000 – Begin moving rig to GS-GSA-PZ-23.

1130 – Cascade crew begin mixing and pouring grout in PZ-23 for abandonment. 3 batches mixed, grout density is 10.5 and grout set to surface. However; grout level is slowly falling and will have to be check on later.

1220 – Begin moving rig to PZ-03.

1225 – Cascade crew begin mixing and pouring grout in PZ-03 for abandonment. 15 gallons mixed, grout density was not measured and grout set to surface.

1300 – Begin moving rig and box truck to GS-AP-MW-47.

1600 – Cascade begins drilling GS-AP-MW-47 from ground surface using a 4" sonic core barrel and 7" drill casing. AS photographs and logs the recovered sonic cores.

1630 – Cascade halts drilling for Cascade safety stand down conference call.

1710 – Field Crew conduct post job and are offsite for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30.75	3.0	NA	33.75
Stantec Field inspector (1)	10.25	1.25	1	12.5
Total				46.25

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H^^	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA†	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^*	Ongoing	NA	NA	NA	70	NA	NA
GS-GSA-PZ-23^^*	Ongoing	NA	NA	NA	130-230	110	NA
GS-GSA-PZ-24^^*	Ongoing	NA	NA	NA	70	51	NA
GS-GSA-PZ-25^^	Installed	Pending	Pending	49.0-59.0	130-230	66	NA
GS-GSA-PZ-03^^*	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-47^^	Ongoing	Ongoing	NA	NA	243	NA	NA

Notes:
^ = Wells added to SDW per SCS addendum from August 2021
^^ = well added to scope in October 2021
* = MW to be Abandoned
** = Interim depth of boring pending Geophysics data review
† = After multiple air lift attempts well is not significantly clearer
Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 10/26/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/19*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 4/19*

Gypsum Piezometer Completion 2/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Continue drilling GS-AP-MW-47

Look Ahead:

Finish Drilling GS-AP-MW-47 and begin setting well at GS-AP-MW-47.

Conditions:

Weather: Partly Sunny, 61-68° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-PZ-MW-47, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions.

0750 – Resume drilling GS-AP-MW-47 from 12 feet using a 4" sonic core barrel and 7" drill casing. AS photographs and logs the recovered sonic cores.

0910– Begin overdrilling with 7" steel casing to 30 feet bgs.

0945 – Cascade begins pulling 2" rods and switching to Air Hammer.

1020 – Start Air Hammering GS-AP-MW-47.

-Prait Coal seam 196-199 ft BGS

1655– Boring depth is 220 ft BGS. Drilling concludes for the day.

1705 – Field Crew conduct post job and are offsite for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	30	3.0	NA	33
Stantec Field inspector (1)	10	1.25	1	12.25
Total				45.25

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	Shannon McDonald
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Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H^^	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA†	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^*	Ongoing	NA	NA	NA	70	NA	NA
GS-GSA-PZ-23^^*	Ongoing	NA	NA	NA	130-230	110	NA
GS-GSA-PZ-24^^*	Ongoing	NA	NA	NA	70	51	NA
GS-GSA-PZ-25^^	Installed	Pending	Pending	49.0-59.0	130-230	66	NA
GS-GSA-PZ-03^^*	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-47^^	Ongoing	Ongoing	NA	NA	243	220	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

^^ = well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 10/27/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 18/19*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 5/19*

Gypsum Piezometer Completion 2/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Finish Drilling GS-AP-MW-47 and begin setting well at GS-AP-MW-47.

Look Ahead:

Next Shift, Grout GS-AP-MW-47, Finish abandoning GS-GSA-PZ-23 and GS-GSA-PZ-24. Set pads on remaining wells and finish preliminary development. Field crew will meet at 1300 at MW-47.

Conditions:

Weather: Partly Sunny, 55-68° F

Access issues: None

Daily Activities:

0700 – Andrew Stevens (AS-Stantec) arrive GS-PZ-MW-47, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location. Conduct JSA pre-job discussions. AS picked up 3 core boxes from Gypsum Laydown yard before arriving to MW-47.

0745 – Resume Air Hammering GS-AP-MW-47.

-American Coal seam 233-235.5 ft BGS

-TD of boring is 242.0 ft BGS.

1100 – GS-AP-MW-47 is installed and the bentonite plug is hydrated. Begin four hour hydration period.

Well specs are as follows:

- Sand filter pack 242.0-226.1
- Well bottom cap at 239.4', bottom of screen at 239.0', top of screen at 229.0 feet
- Bentonite pellet plug 226.1 – 222.0'

1105 – Crew begins packing up for the day.

1115 – Field crew takes core boxes to Laydown yard at Rattlesnake lake and unload them

1130 – Cascade crew conducts post job and are offsite for the day.

1200 – AS and SM conduct post job and are offsite for the day.

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	13.5	21	NA	34.5
Stantec Field inspector (1)	5	5	2	12.0
Total				46.5

Safety/Environmental: Avoid over pressurization during air lifting to prevent damage to well construction

Comments: None

Attachment 1: Well Status

Southern Company Services Phase III - Ash Pond Monitoring Well Installation and Well Abandonment Plant Gorgas, Walker County, Alabama							
Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H^^	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Pending	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Ongoing	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pending	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Bollards only	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR	Installed	Ongoing	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	--	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^	Ongoing	NA	NA	NA	70	NA	NA
GS-GSA-PZ-23^^	Ongoing	NA	NA	NA	130-230	110	NA
GS-GSA-PZ-24^^	Ongoing	NA	NA	NA	70	51	NA
GS-GSA-PZ-25^^	Installed	Pending	Pending	49.0-59.0	130-230	66	NA
GS-GSA-PZ-03^^	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-47^^	Ongoing	Ongoing	NA	229.0-239.0	243	242.0	NA

Notes:

^ = Wells added to SOW per SCS addendum from August 2021

^^ = well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 11/02/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 19/19*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 8/19*

Gypsum Piezometer Completion/Abandonments 4/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Continue drilling GS-AP-MW-18R and GS-AP-PZ-18R (MW-18 Series)

Look Ahead:

Finish constructing pads at MW-18 Series, followed by GS-AP-MW-01H, GS-AP-MW-01R, and GS-AP-MW-31V.

Conditions:

Weather: Partly Sunny, 55-63° F

Access issues: None

Daily Activities:

0737 – Edgar Smith (ES-Stantec) arrives at GS-PZ-MW-47, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are at location continuing grouting of monitoring well annulus. ES conducts JSA pre-job discussion review.

0745 – One additional batch of grout added to bring grout to surface, eight total batches of grout used. Grout density measured at 10.2 lb/gal.

0800 – Begin breaking down rig to move off of GS-AP-MW-47.

1100 – Cascade, ES, and SM mobilize to Gorgas Gypsum Pond to complete borehole and monitoring well abandonments.

1125 – Bentonite pellets added to screen interval of GS-GSA-PZ-25, top of pellets tagged at 46' BGS. Add potable water to hydrate bentonite.

1138 – GS-GSA-PZ-24 abandoned using five 5-gallon buckets mixed to approximately 12.5 lb/gal (based on visual) bringing grout from 11' BGS to approximately 10" BGS

1200 – Mix grout and abandon GS-GSA-PZ-25, prior to adding grout top 10' of PVC riser removed from casing string prior to grouting. A total of eight 5-gallon buckets were mixed and used to bring grout to approximately 10" BGS. Cascade loads up remaining core boxes, ES completes labeling of boxes.

1230 – SM and ES drive into main GSP complex and take photos of abandonment conditions at GS-GSP-PZ-03 and GS-GSP-MW-15H which is missing two bollards. Bollards are laying on the ground uninstalled.

1245 – Travel to GS-GSP-PZ-23, Cascade tops off grout in borehole. Adds 10 additional 5-gallon buckets of grout to bring hole within 10" of ground surface. Cascade loads up 6 core boxes to move to Laydown Yard.

1340 – ES, SM, and Cascade travel to Laydown Yard to load supplies for building pads and unload core boxes. LH with Cascade indicates that there are not enough bollards in supply to complete the surface completions but think that there were some moved previously to the MW-18 Area.

1440 – ES leaves and drives to GS-GSP-MW-15H to pick up the two bollards that were not installed at that location to use on MW-18 wells. SM and Cascade leave and head to MW-18 Area.

1545 – ES arrives at MW-18 area with two bollards from GS-GSP-MW-15H, SM and Cascade onsite constructing surface completions. APC is conducting SIMOPS in the general area, related to stringing power distribution lines into the Rattlesnake Lake closure operations. No bollards or pro cover supplies are found to be stored in the area, LH indicates that they are two pro covers and 8 bollards short of supplies needed to complete surface completions and will order them.

1620 – ES leaves to drive to Laydown Yard and pickup additional bollards and pro covers to complete the installation of surface completions at MW-18 Area.

1710 – ES returns to MW-18 Area with supplies for Cascade, drillers have already quit working for the day. Field crew completes end of day JSA reviews and discusses work for tomorrow. Plan set to meet back at Laydown Yard in the AM.

1722 – ES, SM, and Cascade leave for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3.0	NA	36.5
Stantec Field inspector (1)	10	1.75	1.5	13.25
Total				49.75

6.5 Hours total charges to APC921788 for E. Smith

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Safety/Environmental: Be aware of SIMOPs in the work area and communicate with affected parties prior to moving through SIMOPS areas.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01H^	Installed	Pending	Pending	194.0 - 215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pending	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Bollards only	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	Pending	Pending	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23^^	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24^^	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25^^	Abandoned	NA	NA	49.0-59.0	130-230	66	Complete
GS-GSA-PZ-03^^	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-47^	Ongoing	Pending	Pending	229.0-239.0	243	242.0	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Wednesday, 11/03/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 19/19*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 8/19*

Gypsum Piezometer Completion/Abandonments 4/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Pad construction at GS-AP-MW-18R, GS-AP-PZ-18R (MW-18 Series), GS-AP-MW-01R, GS-AP-MW-36V

Look Ahead:

Air lifting beginning at GS-AP-MW-36V (MW-36V).

Conditions:

Weather: Cloudy, 46-55° F

Access issues: None

Daily Activities:

0715 – Edgar Smith (ES-Stantec) arrives at Gate 1.

0730 – ES arrives at Laydown Yard, Shannon McDonald (SM-SCS), Logan Hall (LH-Cascade), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) already loading equipment for construction of surface completions. ES begins filling out JSA pre-job form review.

0745 – Cascade, SM, and ES leave for MW-18 Series location to complete surface completions.

0955 – Cascade completes construction of surface completions at MW-18 Series, move to MW-01R to construct surface completions.

1115 – Cascade completes building surface completion GS-AP-MW-01R. LH leaves to pick up additional hole plug to top of where grout has settled in MW-46 (formerly referenced as MW-1H)

1300 – Surface completion at MW-46 complete, move to MW-31V to construct surface completion. ES begins collecting GPS coordinates of MWs.

1430 – While mixing concrete it is determined that current supply of Sakcrete is defective, too much aggregate and insufficient fines to mix properly. Concrete is disposed of and will be replaced with new concrete to be purchased. Cascade, ES, and SM mobilize to Laydown Yard to prep for air lifting.

1535 – Move to MW-36V for air lifting, light rain begins.

1605 – Arrive at MW-36V, Cascade begins setting up to air lift, ES notices bentonite grout on exterior and interior of multiple sections of 1" PVC, call Stop Work to inspect and discuss the situation. Decision made to delay air lifting until after Cascade recleans all 1" PVC pipe with pressure washer and pipe can be reinspected by both SM and ES.

1622 – ES travels to Gorgas Gypsum Pond to check grout levels in PZ-23, PZ-24, and PZ-25, a total of

approximately 25 to 30 gallons of grout is needed to top off the three borings, ES informs LH and SM of grout needs.

1715 – ES meets up with SM and Cascade while PVC pipe is being pressure washed. ES leaves for the day.

1730 – SM and Cascade leave for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	31.5	3.0	NA	34.5
Stantec Field inspector (1)	10	1.25	1	12.25
Total				46.75

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Safety/Environmental: Be aware of SIMOPs in the work area and communicate with affected parties prior to moving through SIMOPS areas.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01R	Installed	Pending	Pad & Bollards	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Pending	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pad & Bollards	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	Pending	Bollards only	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Pending	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Pending	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23^^	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24^^	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25^^	Abandoned	NA	NA	49.0-59.0	130-230	66	Complete
GS-GSA-PZ-03^^	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-46^^	Installed	Pending	Pad & Bollards	194.0 - 215.0	215	218.75	NA
GS-AP-MW-47^^	Installed	Pending	Pending	229.0-239.0	243	242.0	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Thursday, 11/04/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 19/19*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 10/19*

Gypsum Piezometer Completion/Abandonments 4/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Air lifting at GS-AP-MW-36V (MW-36V), GS-AP-MW-45V (MW-36V), and GS-AP-MW-3V (MW-3V)

Look Ahead:

Continue air lifting beginning at MW-3V.

Conditions:

Weather: Cloudy with occasional light rain, 46-55° F

Access issues: None

Daily Activities:

0730 – Edgar Smith (ES-Stantec) arrives at Gate 1.

0738 – ES at Gate 6 – MW-36V, Shannon McDonald (SM-SCS), Logan Hall (LH-Cascade), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) already loading equipment for construction of surface completions. ES begins filling out JSA pre-job form review.

0745 – ES inspects 1" PVC prior to use for air lifting, hydrated bentonite observed in the ends of several pipe sections, inspection of the back of the support truck reveals a pile of hydrated bentonite in the bed, Cascade cleans out the bentonite and then washes the affected sections of pipe with Liquinox solution prior to using them.

0815 – DTW not gauged prior to installing air lift pipe, begin air lifting of MW-37V.

0915 – LH leaves to drive drill rig back to Cascade shop in Aiken, SC, will return to site Friday.

0955 – Air lifting completed, well was surged four times and blown out twice. Water at end is mostly clear, no significant sediment observable. Move to MW-45V for air lifting.

1115 – Arrive at MW-45V and gauge DTW = 201.7' BTOC. Begin setting up for air lifting.

1200 – Begin airlifting, Hydrogen Sulfide gas detected in air coming from well while using 4-Gas to monitor, 2.4 ppm.

1349 – Air lifting complete for MW-45V. Water at end is very clear. Breakdown equipment and move to MW-3V for air lifting.

1505 – Arrive at MW-3V and gauge DTW = 151.5' BTOC. Begin setting up for air lifting.

1532 – Begin airlifting, Hydrogen Sulfide gas detected in air coming from well while using 4-Gas to monitor, 1.8 ppm.

1650 – Shut down air compressor, water is still tan/cloudy with apparent fine sediment. Allow well to recharge overnight, well was surged a total of six times and purged twice.

1655 – Discuss plan for tomorrow, complete end of day safety discussions and secure work area for overnight. Cascade, SM, and ES leave site for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (3)	22.5	9.5	NA	32
Stantec Field inspector (1)	9.75	1.5	1	12.25
Total				46.75

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Safety/Environmental: Be sure to conduct air monitoring while air lifting and eventually developing monitoring wells due to the presence of hydrogen Sulfide.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01R	Installed	Pending	Pad & Bollards	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Ongoing	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Pending	Pad & Bollards	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	Pending	Bollards only	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Airlift Complete	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Pending	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Airlift Complete	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23^^	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24^^	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25^^	Abandoned	NA	NA	49.0-59.0	130-230	66	Complete
GS-GSA-PZ-03^^	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-46^^	Installed	Pending	Pad & Bollards	194.0 - 215.0	215	218.75	NA
GS-AP-MW-47^^	Installed	Pending	Pending	229.0-239.0	243	242.0	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Friday, 11/05/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed = 19/19*

Monitoring Well Abandonments Completed / Proposed = 6/6

Monitoring Well Preliminary Development Completed Proposed 12/19*

Gypsum Piezometer Completion/Abandonments 4/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Air lifting at GS-AP-MW-3V (MW-3V), GS-AP-MW-37HRV (MW-37HR), and GS-AP-MW-18R (MW-18R)

Look Ahead:

Continue air lifting beginning at MW-18R.

Conditions:

Weather: Partly Cloudy, 48-60° F

Access issues: None

Daily Activities:

0715 – Edgar Smith (ES-Stantec) arrives at MW-3V, Shannon McDonald (SM-SCS), Logan Hall (LH-Cascade), Tyson Williams (TW-Cascade), and Chris Tindell (CT-Cascade) are setting up to complete air lifting of well. ES begins filling out JSA pre-job form review.

0800 – Restart air lifting on MW-3V. Water is clear, allow well to purge.

0821 – MW-3V air lift complete. Begin breaking down equipment and relocating to MW-37HR.

0830 – SM temporarily leaves for an appointment.

0845 – Lock gate at MW-3V.

0918 Arrive at MW-37HR, and gauge DTW = approximately 68' BTOC, accurate level unable to be taken due to PVC shavings and water quality issues. Begin setting up to air lift.

0945 – Begin air lifting, surge well eight times and purge twice, water started out dark gray but transparent with visible fine black particulates in it.

1200 – Pause air lifting on MW-37HR, to allow well to recharge. Water still cloudy with visible particulates. During recharge set up and pump shallow wells.

1233 – ES opens MW-9R and gauges DTW = 60.3' BTOC. Cascade prepares submersible electric pump to deploy in well.

1240 – ES, TW, and CT Pump and surge screen interval of MW-9R. Water is completely opaque and dark gray in color.

1314 – Logan Hall (LH-Cascade) returns with additional Cascade helper to build surface completions at MW-47 and MW-31V. TW and CT pause pumping and switch support trucks with LH. ES leaves to collect GPS coordinates of wells. SM returns and goes with LH to complete surface completion at

MW-31V.

1400 – TW and CT return to MW-9R and continue to pump and surge.

1455 – TW and CT move pump and install it in MW-23V to begin pumping well. ES collects GPS location of MW-23V, MW-5R, and MW-27HR. MW-23V was pumped for 35 minutes and pump left installed in well.

1550 – ES, TW, and CT return to MW-37HR to complete air lifting.

1600 – Air lifting complete for MW037HR, water is very clear at end of air lifting. Begin breaking down equipment to move to MW-18R.

1655 – ES, CT, and CW arrive at MW-18R, ES gauges DTW = 45.1' BTOC. Set up air lift equipment.

1710 – Begin airlifting MW-18R. surge well twice then purge water. Water is light brown with fine sediment.

1715 – Pause air lifting for the day, Contact SM, inform her that we will be staging equipment at MW-18R overnight. LH and helper leave for the day.

1740 – ES, TW, and CT exit through Gate 3, ES locks gate and takes key to SM.

1745 – ES meets with SM at entrance to Gate 1, hands off gate and well keys and completes JSA.

1800 – ES leaves site to mobilize home, David Webb (DW-Stantec) mobilizes to be onsite Saturday 11/6/21.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (4)	29.5	14.0	NA	43.5
Stantec Field inspector (1)	11	10.25	1	22.25
Total				65.75

Reviewed by SCS-CFS:	Shannon McDonald	Date/Signature:	<i>Shannon McDonald</i>
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Safety/Environmental: Be sure to conduct air monitoring while air lifting and eventually developing monitoring wells due to the presence of hydrogen Sulfide.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01R	Installed	Pending	Pad & Bollards	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Airlift Complete	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Ongoing	Pad & Bollards	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Pending	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	Pending	Pad & Bollards	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Airlift Complete	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Airlift Complete	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Airlift Complete	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23^^	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24^^	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25^^	Abandoned	NA	NA	49.0-59.0	130-230	66	Complete
GS-GSA-PZ-03^^	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-46^^	Installed	Pending	Pad & Bollards	194.0 - 215.0	215	218.75	NA
GS-AP-MW-47^^	Installed	Pending	Pad & Bollards	229.0-239.0	243	242.0	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 11/06/2021 - Work Site: Plant Gorgas

Saturday 11/06/2021

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed 19/19*
Monitoring Well Abandonments Completed / Proposed 6/6
Monitoring Well Preliminary Development Completed Proposed 12/19*
Gypsum Piezometer Completion/Abandonments 4/4
Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Continue airlifting at GS-AP-MW-18R, GS-AP-MW-18R, and GS-AP-PZ-18R (MW-18 Series)

Look Ahead:

Conduct airlifting on GS-AP-MW-01R, GS-AP-MW-31V, and GS-AP-MW-47.

Conditions:

Weather: Sunny, 37-62° F

Access Issues: None

Daily Activities:

0705 – David Webb (DW-Stantec) arrives at G3 gate, Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), Tyson Williams (TW-Cascade), Chris Tindell (CT-Cascade), and Jasper Williams (JW-Cascade) are at entry parking lot conducting pre-job and organize equipment. DW conducts JSA pre-job discussion review.

0741 – SM, TW and LH arrive at G3 gate. CT and JW travel to GS-AP-MW-47 to pour pad and set bollards.

0754 – SM, DW, TW, and LH arrive at well GS-AP-MW-18R and setup to conduct airlifting.

0827 – Being airlifting well GS-AP-MW-18R. SM leaves to check on progress of pad and bollard installation at GS-AP-MW-47. First purged water is light grey and cloudy with some heavy sediments.

0838 – Stop airlifting well GS-AP-MW-18R. Final purged water is cloudy with no presence of heavy sediments. Breakdown airlifting setup to move to next well.

0843 – Setup to conduct airlifting at well GS-AP-PZ-18R.

0857 – Being airlifting well GS-AP-PZ-18R. First purged water grey and very cloudy with some heavy sediments.

1002 – SM arrives at well GS-AP-PZ-18R. SM informs DW that surface completion on GS-AP-MW-47 has been completed and CT and JW are loading up materials and equipment for demobilization.

1047 – Stop airlifting on well GS-AP-PZ-18R. Final purged water is light grey and cloudy with no presence of heavy sediments. Breakdown airlifting setup to move to next well.

1058 – SM, DW, TW, and LH arrive at well GS-AP-MW-18VR and setup to conduct airlifting.

1108 – Being airlifting well GS-AP-MW-18VR. First purged water is tan and cloudy with some heavy

sediments.

1105 – SM leaves to assist CT and JW in retrieving materials from secure storage area.

1200 – SM arrives at GS-AP-MW-18VR.

1210 - CT arrives at GS-AP-MW18VR handoff pea gravel and equipment. JW leaves site and will not be returning for the remainder of the shift.

1225 – CT leaves site and will not be returning for the remainder of the shift.

1245 – Stop airlifting well GS-AP-MW-18VR. Final purged water is slightly cloudy with no presence of heavy sediments. Breakdown airlifting setup to move to next well.

1324 – SM, DW, TW, and LH arrive at well GS-AP-MW-46 and setup to conduct airlifting.

1344 – Begin airlifting well GS-AP-MW-46. First purged water is grey and cloudy with some heavy and sulfurous odor.

1640 – Stop airlifting well GS-AP-MW-46. Final purged water is light tan and cloudy with no presence of heavy sediments.

1705 – DW, SM, and Cascade leave for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (4)	30.5	15.0	NA	45.5
Stantec Field inspector (1)	10	1.0	1.5	12.5
Total				58.0

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i>
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Safety/Environmental: When setting up to perform air lifting, check that the safety leash for the high-pressure hose is correctly placed and secured prior to energizing the air compressor.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-46 ^{^^} GS-AP-MW-04H	Installed	Airlift Complete	Pad & Bollards	194.0-215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Pending	Pad & Bollards	231.0-241.0	248.42	255	NA
GS-AP-MW-03V [^]	Installed	Airlift Complete	Pad & Bollards	205.0-215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6-174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6-95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Airlift Complete	Pad & Bollards	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Airlift Complete	Pad & Bollards	207.0-217.0	215	220 ^{**}	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Airlift Complete	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V [^]	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	287.0-277.0	335.91	300	NA
GS-AP-MW-31V [^]	Installed	Pending	Pad & Bollards	315.0-325.0	360	335	NA
GS-AP-MW-36V [^]	Installed	Airlift Complete	Pad & Bollards	307.0-317.0	365	325 ^{**}	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Airlift Complete	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H [^]	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA [^]	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V [^]	Installed	Airlift Complete	Pad & Bollards	247.0-257.0	265	265 ^{**}	NA
GS-GSA-PZ-22 ^{^^}	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23 ^{^^}	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24 ^{^^}	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25 ^{^^}	Abandoned	NA	NA	49.0-59.0	130-230	66	Complete
GS-GSA-PZ-03 ^{^^}	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-47 ^{^^}	Installed	Pending	Pad & Bollards	229.0-239.0	243	242.0	NA

Notes:

[^] = Wells added to SOW per SCS addendum from August 2021

^{^^} = Well added to scope in October 2021.

* = MW to be Abandoned

^{**} = Interim depth of boring pending Geophysics data review

† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: ~~Tuesday~~ 11/07/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed 19/19*

Monitoring Well Abandonments Completed / Proposed 6/6

Monitoring Well Preliminary Development Completed Proposed 13/19*

Gypsum Piezometer Completion/Abandonments 4/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Airlifting at GS-AP-MW-1R, GS-AP-MW-31V, and GS-AP-MW-47

Look Ahead:

Conduct preliminary development pumping on GS-AP-MW-18R, GS-AP-PZ-18R, and GS-AP-MW-3V.

Conditions:

Weather: Sunny, 40-63° F

Access Issues: None

Daily Activities:

0705 – David Webb (DW-Stantec), Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), and Tyson Williams (TW-Cascade) arrive onsite at GS-AP-MW-46 and conduct pre-job.

0718 – Breakdown airlifting setup at GS-AP-MW-46.

0741 – Setup to conduct airlifting at GS-AP-MW-1R.

0756 – Begin airlifting well GS-AP-MW-1R. First purged water is cloudy with some heavy sediments.

0936 – Stop airlifting well GS-AP-MW-1R. Final purged water is cloudy with no presence of heavy sediments. Breakdown airlifting setup to move to next well.

0954 – SM, DW, TW, and LH arrive at well GS-AP-MW-31V. DW and LH leave to retrieve tagline from box truck located at the entrance parking lot.

1012 – DW and LH arrive back at well GS-AP-MW-31V and setup to conduct airlifting.

1050 – Begin airlifting well GS-AP-MW-31V. First purged water cloudy with some heavy sediments.

1205 – Stop airlifting on well GS-AP-MW-31V. Well is dry and will require extended recharge period. DW, SM, and Cascade leave well GS-AP-MW-31V.

1220 – SM, DW, and Cascade arrive at well GS-AP-MW-23V and setup to pump well.

1230 – Start pumping well GS-AP-MW-23V. Initial purged water is grey and very cloudy.

1300 – Stop pumping well GS-AP-MW-23V. Final purged water is cloudy. Pull pump from well and load up equipment.

1315 – SM, DW, and Cascade leave well GW-AP-MW-23V.

1325 – SM, DW, and Cascade arrive at well GS-AP-MW-31V and resume airlifting.

1355 – Stop airlifting well GS-AP-MW-31V. Final purged water is cloudy with no presence of heavy

sediments. Breakdown airlifting setup to move to next well.

1445 – SM, DW and Cascade arrive at well GS-AP-MW-47 and setup to conduct airlifting.

1500 – Being airlifting well GS-AP-MW-47. First purged water is tan and cloudy with some heavy sediments.

1633 – Stop airlifting well GS-AP-MW-47. Final purged water is cloudy with no presence of heavy sediments. Breakdown airlifting setup.

1646– DW, SM, and Cascade leave well GS-AP-MW-47. SM and Cascade head to laydown to load equipment and supplies.

1700 – DW leaves site for the day.

1720 - SM and Cascade leave site for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (2)	21.0	2.0	NA	23.0
Stantec Field inspector (1)	10	1.0	1.5	12.5
Total				35.5

Reviewed by SCS-CFS:	S. McDonald	Date/Signature:	<i>S. McDonald</i>
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Safety/Environmental: Be cautious of slippery ground conditions in areas where purge water is directed.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-46 ^{MM} GS-AP-MW-04H	Installed	Airlift Complete	Pad & Bollards	194.0-215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Airlift Complete	Pad & Bollards	231.0-241.0	248.42	255	NA
GS-AP-MW-03V [^]	Installed	Airlift Complete	Pad & Bollards	205.0-215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6-174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6-95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Airlift Complete	Pad & Bollards	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Airlift Complete	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Airlift Complete	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V [^]	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V [^]	Installed	Airlift Complete	Pad & Bollards	315.0-325.0	360	335	NA
GS-AP-MW-36V [^]	Installed	Airlift Complete	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Airlift Complete	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H [^]	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA [^]	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V [^]	Installed	Airlift Complete	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22 ^{MM}	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23 ^{MM}	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24 ^{MM}	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25 ^{MM}	Abandoned	NA	NA	40.0-60.0	130-230	66	Complete
GS-GSA-PZ-03 ^{MM}	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-47 ^{MM}	Installed	Airlift Complete	Pad & Bollards	229.0-239.0	243	242.0	NA

Notes:

[^] = Wells added to SOW per SCS addendum from August 2021

^{MM} = Well added to scope in October 2021.

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple air/lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama
PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Monday, 11/08/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed 19/19*

Monitoring Well Abandonments Completed / Proposed 6/6

Monitoring Well Preliminary Development Completed Proposed 19/19*

Gypsum Piezometer Completion/Abandonments 4/4

Refer to Attachment 1 below for well status.

*GS-AP-MW-45H has been removed from install list

Current Work Location:

Pumping for preliminary development at GS-AP-MW-11R, GS-AP-MW-13R, and GS-AP-MW-14R

Look Ahead:

Conduct final gauging and total depth measurements for newly installed wells.

Conditions:

Weather: Sunny, 40-69° F

Access issues: None

Daily Activities:

0705 – David Webb (DW-Stantec), Logan Hall (LH-Cascade), Shannon McDonald (SM-SCS), and Tyson Williams (TW-Cascade) arrive onsite at GS-AP-MW-11R located in laydown yard and conduct pre-job.

0720 – Setup to pump GS-AP-MW-11R.

0740 – Start pumping well GS-AP-MW-11R. Initial purge water is tan and cloudy.

0808 – Stop pumping well GS-AP-MW-11R. Final purge water is slightly cloudy. Breakdown pumping setup to move to next well.

0814 – SM, DW, and Cascade arrive at well GS-AP-MW-13R and setup to pump well.

0845 – Start pumping well GS-AP-MW-13R. First purge water is grey and very cloudy.

0935 – Stop pumping well GS-AP-MW-13R. Final purge water is slightly cloudy. Breakdown pumping setup to move to next well.

0944 – SM, DW, and Cascade arrive at well GS-AP-MW-14R and setup to pump well.

1009 – Start pumping well GS-AP-MW-14R. First purge water is light grey and cloudy.

1132 – Stop pumping well GS-AP-MW-14R. Final purge water is cloudy. Breakdown pumping setup.

1141 – SM, DW, and Cascade arrive at laydown yard and wait for SCS representative to arrive with trailer to transport skid steer to Gorgas Gypsum Pond to load core boxes.

1146 – SCS representative arrived and load up equipment to trailer.

1205 – SM, DW, and Cascade leave laydown yard. SM and TW travel to Gorgas Gypsum Pond to load core boxes and DW and TH travel to GS-AP-MW-5R to pump well.

1220 – DW and TH arrive at well GS-AP-MW-5R and setup to pump well.

1244 – Well pump is no functioning correctly. DW and TH troubleshoot issue with pump and determine

that motor in the pump has been damaged. DW calls Edgar Smith with Stantec and SM to inform them that pumping of wells will not be able to be continued.

1310 – DW and TH leave well GS-AP-MW-5R and travel to Gorgas Gypsum Pond to assist with the loading of core boxes.

1332 – DW and TH arrive at Gorgas Gypsum Pond and assist with the loading of core boxes.

1420 – DW, TH, SM, and TW leave Gorgas Gypsum Pond.

1450 – DW, SM, and Cascade arrive at laydown yard and begin loading core boxes and loading remaining materials in laydown yard onto the Cascade box truck.

1530 – DW follows TW to transport skid steer to area near the entrance parking lot.

1553 – DW and TW arrive back at laydown yard.

1558 – DW, SM, and Cascade leave laydown yard

1558 – DW, SM, and Cascade arrive at well GS-AP-MW-5R and breakdown pumping setup.

1614 – DW, SM, and Cascade leave well GS-AP-MW-5R.

1642 – DW, SM, and Cascade arrive at boring GS-GSA-PZ-23 and top off grout backfill and backfill the last foot with topsoil.

1658 – DW, SM, and Cascade arrive at borings GS-GSA-PZ-24 and GS-GSA-PZ-25 and top off grout backfill and backfill the last foot with topsoil.

1708 – DW, SM and Cascade leave site for the day.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Cascade Crew (2)	21.0	2.0	NA	23.0
Stantec Field inspector (1)	10.0	1.0	1.5	12.5
Total				35.5

Reviewed by SCS-CFS:	<i>S. McDonald</i>	Date/Signature:	<i>Shawnigh McDonald</i>
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Safety/Environmental: Plan necessary electrical and hose line to run outside of high traffic locations within work area to reduce trip hazards.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-46 [^]	Installed	NA	NA	NA	NA	NA	NA
GS-AP-MW-04H		Airlift Complete	Pad & Bollards	194.0-215.0	215	218.75	NA
GS-AP-MW-01R	Installed	Airlift Complete	Pad & Bollards	231.0-241.0	248.42	255	NA
GS-AP-MW-03V [^]	Installed	Airlift Complete	Pad & Bollards	205.0-215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6-174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6-95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Airlift Complete	Pad & Bollards	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Airlift Complete	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Airlift Complete	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V [^]	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V [^]	Installed	Airlift Complete	Pad & Bollards	315.0-325.0	360	335	NA
GS-AP-MW-36V [^]	Installed	Airlift Complete	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Airlift Complete	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H [^]	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA [^]	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V [^]	Installed	Airlift Complete	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22 ^{^^}	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23 ^{^^}	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24 ^{^^}	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25 ^{^^}	Abandoned	NA	NA	49.0-59.0	130-230	66	Complete
GS-GSA-PZ-03 ^{^^}	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-47 ^{^^}	Installed	Airlift Complete	Pad & Bollards	229.0-239.0	243	242.0	NA

Notes:

[^] = Wells added to SOW per SCS addendum from August 2021

^{^^} = Well added to scope in October 2021.

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review

† = After multiple airlift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

Daily Drilling Field Report

Southern Company Services - Birmingham, Alabama PLANT GORGAS – PHASE III – Monitoring Well Installation and Abandonment

Work Date: Tuesday, 11/09/2021 - Work Site: Plant Gorgas

General Investigation Scope:

Plant Gorgas Ash Pond

Monitoring Well Completion / MWs Proposed 19/19*
Monitoring Well Abandonments Completed / Proposed 6/6
Monitoring Well Preliminary Development Completed Proposed 19/19*
Gypsum Piezometer Completion/Abandonments 4/4
Refer to Attachment 1 below for well status.

**GS-AP-MW-45H has been removed from install list*

Current Work Location:

Gauging of Wells GS-AP-MW-46, GS-AP-MW-1R, GS-AP-MW-27HR, and GS-AP-MW-36V

Look Ahead:

Onsite project activities have concluded and field staff demobilized.

Conditions:

Weather: Sunny, 44-66° F

Access issues: None

Daily Activities:

0730 – David Webb (DW-Stantec) and Shannon McDonald (SM-SCS) arrive onsite at entrance parking lot and conduct pre-job.

0756 – DW and SM arrive at well GS-AP-MW-31V and DW takes water level and total depth measurements.

0814 – DW and SM arrive at wells GS-AP-MW-46 and GS-AP-MW-1R and DW takes water level and total depth measurements.

0904 – DW and SM arrive at well GS-AP-MW-27HR and DW takes water level and total depth measurements.

0920 – DW and SM arrive at well GS-AP-MW-36V and DW takes water level and total depth measurements. DW notices his truck has a flat tire due to puncture from staple. SM calls site contact to determine if DW can air up tire onsite to leave site and have tire repaired.

0930 – DW and SM leave to meet with site mechanic to air up DW tire.

0942 – DW and SM meet with site mechanic that patches and reinflates DW truck tire. SM leave to go to construction trailer.

0954 – DW meets SM at construction trailer and conducts post job.

1006 – DW leaves construction trailer.

1017 – DW leaves site and has concluded onsite project activities.

Hours:

Personnel	On Site (Hours)	Travel Time (Hours)	Reporting Time (Hours)	Total per Crew (Hours)
Stantec Field inspector (1)	3.0	4.0	1.5	8.5
Total				8.5

Reviewed by SCS-CFS:		Date/Signature:	
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Safety/Environmental: Inspect field vehicles on a regular basis prior to operating, and take the time to stop and inspect vehicle if there are indications of issues.

Comments: None

Attachment 1: Well Status

Southern Company Services
Phase III - Ash Pond Monitoring Well Installation and Well Abandonment
Plant Gorgas, Walker County, Alabama

Well ID	Status	Preliminary Development	Surface Completion	Screened Interval (Feet)	Target Depth (Feet)	Actual Depth (Feet)	Abandonment Status
GS-AP-MW-01*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-01R	Installed	Airlift Complete	Pad & Bollards	231.0 - 241.0	248.42	255	NA
GS-AP-MW-03V^	Installed	Airlift Complete	Pad & Bollards	205.0 - 215.0	250	215	NA
GS-AP-MW-05R†	Installed	Airlift Complete	Pad & Bollards	164.6 - 174.6	191.42	185	NA
GS-AP-MW-09R	Installed	Airlift Complete	Pad & Bollards	85.6 - 95.6	160	140	NA
GS-AP-MW-10R†	Installed	Airlift Complete	Pad & Bollards	197.6-207.6	225	220	NA
GS-AP-MW-11R	Installed	Airlift Complete	Pad & Bollards	134.4-144.4	226	160	NA
GS-AP-MW-13R	Installed	Airlift Complete	Pad & Bollards	155.0-165.0	222	180	NA
GS-AP-MW-14R	Installed	Airlift Complete	Pad & Bollards	189.0-199.0	254.19	210	NA
GS-AP-MW-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18R	Installed	Airlift Complete	Pad & Bollards	43.0-53.0	150-197	57	NA
GS-AP-MW-18V*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-18VR	Installed	Airlift Complete	Pad & Bollards	207.0-217.0	215	220**	NA
GS-AP-PZ-18*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-PZ-18R	Installed	Pending	Pad & Bollards	102.0-112.0	212	120	NA
GS-AP-MW-23V^	Installed	Airlift Complete	Pad & Bollards	74.0-84.0	90	87	NA
GS-AP-MW-27H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-27HR†	Installed	Airlift Complete	Pad & Bollards	267.0-277.0	335.91	300	NA
GS-AP-MW-31V^	Installed	Airlift Complete	Pad & Bollards	315.0 - 325.0	360	335	NA
GS-AP-MW-36V^	Installed	Airlift Complete	Pad & Bollards	307.0-317.0	365	325**	NA
GS-AP-MW-37H*	Abandoned	NA	NA	NA	NA	NA	Complete
GS-AP-MW-37HR	Installed	Airlift Complete	Pad & Bollards	231.0-241.0	251	250	NA
GS-AP-MW-45H^	Abandoned	NA	NA	NA	195	216	Complete
GS-AP-MW-45HA^	Abandoned	NA	NA	NA	220	--	Complete
GS-AP-MW-45V^	Installed	Airlift Complete	Pad & Bollards	247.0-257.0	265	265**	NA
GS-GSA-PZ-22^^	Abandoned	NA	NA	NA	70	NA	Complete
GS-GSA-PZ-23^^	Abandoned	NA	NA	NA	130-230	110	Complete
GS-GSA-PZ-24^^	Abandoned	NA	NA	NA	70	51	Complete
GS-GSA-PZ-25^^	Abandoned	NA	NA	NA	130-230	66	Complete
GS-GSA-PZ-03^^	Abandoned	NA	NA	NA	120.4	NA	Complete
GS-AP-MW-46^	Installed	Airlift Complete	Pad & Bollards	194.0 - 215.0	215	218.75	NA
GS-AP-MW-47^	Installed	Airlift Complete	Pad & Bollards	229.0-239.0	243	242.0	NA

Notes:

^= Wells added to SOW per SCS addendum from August 2021

^^= well added to scope in October 2021

* = MW to be Abandoned

** = Interim depth of boring pending Geophysics data review



† = After multiple air lift attempts well is not significantly clearer

Installed implies well construction is complete with sand filter pack, bentonite seal, and grout added to the annulus of the boring.

ATTACHMENT H

Photographic Log



Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 1			
Boring Location: GS-AP-MW-01H/GS-AP-MW-46			
Date: 10/6/2021			
Sample Depth: Interval 0.0 - 6.5			
Comments: Run 1			
File Name: MW-01H 0 to 6.5.JPG			
Photograph ID: 2			
Boring Location: GS-AP-MW-01H/GS-AP-MW-46			
Date: 10/6/2021			
Sample Depth: Interval 16.5 - 16.5			
Comments: Run 2			
File Name: MW-01H 16.5 to 22.5.JPG			


Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 3	
Boring Location: GS-AP-MW-01H/GS-AP-MW-46	
Date: 10/6/2021	
Sample Depth: Interval 26.5 - 36.5	
Comments: Run 3	
File Name: MW-01H 26.5 to 36.5.JPG	

Photograph ID: 4	
Boring Location: GS-AP-MW-01H/GS-AP-MW-46	
Date: 10/6/2021	
Sample Depth: Interval 36.5 - 40.0	
Comments: Run 4	
File Name: MW-01H 36.5 to 40.0.JPG	


Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 5	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 0.0 - 7.0	
Comments: Run 1	
File Name: MW-1R_0_to_7.JPG	


Photograph ID: 6	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 7.0 - 12.0	
Comments: Run 2	
File Name: MW-1R_7_to_12.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 7	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 12.0 - 17.0	
Comments: Run 3	
File Name: MW-1R_12_to_17.JPG	

Photograph ID: 8	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 17.0 - 22.0	
Comments: Run 4	
File Name: MW-1R_17_to_22.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 9	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 22.0 - 27.0	
Comments: Run 5	
File Name: MW-1R_22_to_27.JPG	

Photograph ID: 10	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 27.0 - 32.0	
Comments: Run 6	
File Name: MW-1R_27_to_32.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 11	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 32.0 - 37.0	
Comments: Run 7	
File Name: MW-1R_32_to_37.JPG	

Photograph ID: 12	
Boring Location: GS-AP-MW-1R	
Date: 9/14/2021	
Sample Depth: Interval 37.0 - 40.0	
Comments: Run 8	
File Name: MW-1R_37_to_40.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 13	 <p>Sep 10, 2021 at 4:21:59 PM Quinton AL 35130 United States</p>
Boring Location: GS-AP-MW-3V	
Date: 9/15/2021	
Sample Depth: Interval 0.0 - 7.0	
Comments: Run 1	
File Name: MW-3V 0.0 to 7.0.jpg	

Photograph ID: 14	 <p>Sep 10, 2021 at 4:35:09 PM Quinton AL 35130 United States</p>
Boring Location: GS-AP-MW-3V	
Date: 9/15/2021	
Sample Depth: Interval 7.0 - 12.0	
Comments: Run 2	
File Name: MW-3V 7.0 to 12.0.jpg	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 15
Boring Location: GS-AP-MW-3V
Date: 9/15/2021
Sample Depth: Interval 12.0 - 17.0
Comments: Run 2
File Name: MW-3V 12.0 to 17.0.jpg



Photograph ID: 16
Boring Location: GS-AP-MW-3V
Date: 9/15/2021
Sample Depth: Interval 17.0 - 22.0
Comments: Run 3
File Name: MW-3V 17.0 to 22.0.jpg





Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL



Photograph ID: 17
Boring Location: GS-AP-MW-3V
Date: 9/15/2021
Sample Depth: Interval 22.0 - 27.0
Comments: Run 3
File Name: MW-3V 22.0 to 27.0.jpg





Photograph ID: 18
Boring Location: GS-AP-MW-3V
Date: 9/15/2021
Sample Depth: Interval 27.0 - 37.0
Comments: Run 4
File Name: MW-3V 27.0 to 37.0.jpg



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 19			
Boring Location: GS-AP-MW-5R			
Date: 7/20/2021			
Sample Depth: Interval 0.0 - 7.0			
Comments: Run 1			
File Name: MW-5R_0_to_7.jpg			
Photograph ID: 20			
Boring Location: GS-AP-MW-5R			
Date: 7/20/2021			
Sample Depth: Interval 7.0 - 17.0			
Comments: Run 2			
File Name: MW-5R_7_to_17.jpg			

Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 21			
Boring Location: GS-AP-MW-5R			
Date: 7/20/2021			
Sample Depth: Interval 17.0 - 27.0			
Comments: Run 3			
File Name: MW-5R_17_to_27.jpg			
Photograph ID: 22			
Boring Location: GS-AP-MW-5R			
Date: 7/20/2021			
Sample Depth: Interval 27.0 - 30.0			
Comments: Run 4			
File Name: MW-5R_27_to_30.jpg			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 23			
Boring Location: GS-AP-MW-5R			
Date: 7/28/2021			
Sample Depth: NA			
Comments: Surface Completion			
File Name: GS_AP_MW_5R.JPG			
Photograph ID: 24			
Boring Location: GS-AP-MW-9R			
Date: 7/21/2021			
Sample Depth: Interval 0.0 - 7.0			
Comments: Run 1			
File Name: MW-9R 0 to 7.jpg			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 25
Boring Location: GS-AP-MW-9R
Date: 7/21/2021
Sample Depth: Interval 7.0 - 14.5
Comments: Run 2
File Name: MW-9R 7 to 14.5.jpg





Photograph ID: 26
Boring Location: GS-AP-MW-9R
Date: 7/21/2021
Sample Depth: Interval 14.5 - 17.0
Comments: Run 3
File Name: MW-9R 14.5 to 17.jpg





Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 27	
Boring Location: GS-AP-MW-9R	
Date: 7/21/2021	
Sample Depth: Interval 17.0 - 22.0	
Comments: Run 4	
File Name: MW-9R 17 to 22.jpg	

Photograph ID: 28	
Boring Location: GS-AP-MW-9R	
Date: 7/21/2021	
Sample Depth: Interval 22.0 - 27.0	
Comments: Run 5	
File Name: MW-9R 22 to 27.jpg	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 29			
Boring Location: GS-AP-MW-9R			
Date: 7/21/2021			
Sample Depth: Interval 27.0 - 30.0			
Comments: Run 6			
File Name: MW-9R 27 to 30.jpg			
Photograph ID: 30			
Boring Location: GS-AP-MW-9R			
Date: 8/7/2021			
Sample Depth: NA			
Comments: Surface Completion			
File Name: GS_AP_MW_9R.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 31			
Boring Location: GS-AP-MW-10R			
Date: 7/11/2021			
Sample Depth: Interval 0.0 - 7.0			
Comments: Run 1			
File Name: MW-10R 0 to 7.JPG			
Photograph ID: 32			
Boring Location: GS-AP-MW-10R			
Date: 7/11/2021			
Sample Depth: Interval 7.0 - 15.0			
Comments: Run 2			
File Name: MW-10R 7 to 15.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 33	
Boring Location: GS-AP-MW-10R	
Date: 7/11/2021	
Sample Depth: Interval 15.0 - 17.0	
Comments: Run 3	
File Name: MW-10R 15 to 17.JPG	

Photograph ID: 34	
Boring Location: GS-AP-MW-10R	
Date: 7/11/2021	
Sample Depth: Interval 17.0 - 27.0	
Comments: Run 4	
File Name: MW-10R 17 to 27.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 35
Boring Location: GS-AP-MW-10R
Date: 7/11/2021
Sample Depth: Interval 27.0 - 30.0
Comments: Run 5
File Name: MW-10R 27 to 30.JPG




Photograph ID: 36
Boring Location: GS-AP-MW-10R
Date: 8/8/2021
Sample Depth: NA
Comments: Surface Completion
File Name: GS_AP_MW_10R.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 37	
Boring Location: GS-AP-MW-11R	
Date: 7/7/2021	
Sample Depth: Interval 0.0 - 6.0	
Comments: Run 1	
File Name: MW-11R 0 to 6.JPG	

Photograph ID: 38	
Boring Location: GS-AP-MW-11R	
Date: 7/7/2021	
Sample Depth: Interval 6.0 - 16.0	
Comments: Run 2	
File Name: MW-11R 6 to 16.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 39	
Boring Location: GS-AP-MW-11R	
Date: 7/7/2021	
Sample Depth: Interval 16.0 - 22.5	
Comments: Run 3	
File Name: MW-11R 16 to 22.5.JPG	

Photograph ID: 40	
Boring Location: GS-AP-MW-11R	
Date: 7/7/2021	
Sample Depth: Interval 22.5 - 26.0	
Comments: Run 4	
File Name: MW-11R 22.5 to 26.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 41
Boring Location: GS-AP-MW-11R
Date: 7/7/2021
Sample Depth: Interval 26.0 - 36.0
Comments: Run 5
File Name: MW-11R 26.0 to 36.0.JPG



Photograph ID: 42
Boring Location: GS-AP-MW-11R
Date: 7/7/2021
Sample Depth: Interval 36.0 - 40.0
Comments: Run 6
File Name: MW-11R 36.0 to 40.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 43
Boring Location: GS-AP-MW-11R
Date: 7/7/2021
Sample Depth: Interval 40.0 - 46.0
Comments: Run 7
File Name: MW-11R 40.0 to 46.0.JPG





Photograph ID: 44
Boring Location: GS-AP-MW-11R
Date: 7/7/2021
Sample Depth: Interval 46.0 - 50.0
Comments: Run 8
File Name: MW-11R 46.0 to 50.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 45	
Boring Location: GS-AP-MW-11R	
Date: 7/25/2021	
Sample Depth: NA	
Comments: Surface Completion	
File Name: GS_AP_MW_11R.JPG	

Photograph ID: 46	
Boring Location: GS-AP-MW-13R	
Date: 6/25/2021	
Sample Depth: Interval 0.0 - 7.0	
Comments: Run 1	
File Name: MW-13R 0.0 to 7.0.JPG	


Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 47			
Boring Location: GS-AP-MW-13R			
Date: 6/25/2021			
Sample Depth: Interval 7.0 - 17.0			
Comments: Run 2			
File Name: MW-13R 7.0 to 17.0.JPG			
Photograph ID: 48			
Boring Location: GS-AP-MW-13R			
Date: 6/26/2021			
Sample Depth: Interval 17.0 - 27.0			
Comments: Run 3			
File Name: MW-13R 17.0 to 27.0.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 49	
Boring Location: GS-AP-MW-13R	
Date: 6/26/2021	
Sample Depth: Interval 27.0 - 37.0	
Comments: Run 4	
File Name: MW-13R 27.0 to 37.0.JPG	

Photograph ID: 50	
Boring Location: GS-AP-MW-13R	
Date: 6/26/2021	
Sample Depth: Interval 37.0 - 40.0	
Comments: Run 5	
File Name: MW-13R 37.0 to 40.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 51	
Boring Location: GS-AP-MW-13R	
Date: 7/25/2021	
Sample Depth: NA	
Comments: Surface Completion	
File Name: GS_AP_MW_13R.JPG	

Photograph ID: 52	
Boring Location: GS-AP-MW-14R	
Date: 6/27/2021	
Sample Depth: Interval 0.0 - 7.0	
Comments: Run 1	
File Name: MW-14R 0.0 to 7.0.JPG	

Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 53			
Boring Location: GS-AP-MW-14R			
Date: 6/27/2021			
Sample Depth: Interval 7.0 - 17.0			
Comments: Run 2			
File Name: MW-14R 7.0 to 17.0.JPG			
Photograph ID: 54			
Boring Location: GS-AP-MW-14R			
Date: 6/27/2021			
Sample Depth: Interval 17.0 - 27.0			
Comments: Run 3			
File Name: MW-14R 17.0 to 27.0.JPG			



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL



Photograph ID: 55
Boring Location: GS-AP-MW-14R
Date: 6/27/2021
Sample Depth: Interval 27.0 - 30.0
Comments: Run 4
File Name: MW-14R 27.0 to 30.0.JPG



Photograph ID: 56
Boring Location: GS-AP-MW-18R
Date: 8/10/2021
Sample Depth: Interval 0.0 - 7.0
Comments: Run 1
File Name: MW_18R_0_7.JPG





Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 57			
Boring Location: GS-AP-MW-18R			
Date: 8/10/2021			
Sample Depth: Interval 7.0 - 17.0			
Comments: Run 2			
File Name: MW_18R_7_17.jpg			
Photograph ID: 58			
Boring Location: GS-AP-MW-18R			
Date: 8/10/2021			
Sample Depth: Interval 17.0 - 27.0			
Comments: Run 3			
File Name: MW_18R_17_27.jpg			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 59			
Boring Location: GS-AP-MW-18R			
Date: 8/10/2021			
Sample Depth: Interval 27.0 - 37.0			
Comments: Run 4			
File Name: MW_18R_27_37.jpg			
Photograph ID: 60			
Boring Location: GS-AP-MW-18R			
Date: 8/10/2021			
Sample Depth: Interval 37.0 - 47.0			
Comments: Run 5			
File Name: MW_18R_37_47.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 61	
Boring Location: GS-AP-MW-18R	
Date: 8/10/2021	
Sample Depth: Interval 47.0 - 57.0	
Comments: Run 6	
File Name: MW_18R_47_57.JPG	

Photograph ID: 62	
Boring Location: GS-AP-MW-18VR	
Date: 8/7/2021	
Sample Depth: Interval 0.0 -7.0	
Comments: Run 1	
File Name: MW_18VR_0_7.JPG	

Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 63			
Boring Location: GS-AP-MW-18VR			
Date: 8/8/2021			
Sample Depth: Interval 7.0 - 17.0			
Comments: Run 2			
File Name: MW_18VR_7_17.JPG			
Photograph ID: 64			
Boring Location: GS-AP-MW-18VR			
Date: 8/8/2021			
Sample Depth: Interval 17.0 - 27.0			
Comments: Run 3			
File Name: MW_18VR_17_27.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 65
Boring Location: GS-AP-MW-18VR
Date: 8/8/2021
Sample Depth: Interval 27.0 - 30.0
Comments: Run 4
File Name: MW_18VR_27_30.JPG



Photograph ID: 66
Boring Location: GS-AP-MW-23V
Date: 9/24/2021
Sample Depth: Interval 0.0 - 7.0
Comments: Run 1
File Name: MW-23V 0.0 to 7.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 67	 <p>Quinton AL 35130 United States Sep 24, 2021 at 16:37:35</p>
Boring Location: GS-AP-MW-23V	
Date: 9/24/2021	
Sample Depth: Interval 7.0 - 15.0	
Comments: Run 2	
File Name: MW-23V 7.0 to 15.0.JPG	

Photograph ID: 68	 <p>Quinton AL 35130 United States Sep 25, 2021 at 09:42:56</p>
Boring Location: GS-AP-MW-23V	
Date: 9/25/2021	
Sample Depth: Interval 15.0 - 17.0	
Comments: Run 3	
File Name: MW-23V 15.0 to 17.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 69	 <p style="text-align: right;">Quinton AL 35130 United States Sep 25, 2021 at 10:02:11</p>
Boring Location: GS-AP-MW-23V	
Date: 9/25/2021	
Sample Depth: Interval 17.0 - 27.0	
Comments: Run 4	
File Name: MW-23V 17.0 - 27.0.JPG	

Photograph ID: 70	 <p style="text-align: right;">Quinton AL 35130 United States Sep 25, 2021 at 10:38:16</p>
Boring Location: GS-AP-MW-23V	
Date: 9/25/2021	
Sample Depth: Interval 27.0 - 37.0	
Comments: Run 5	
File Name: MW-23V 27.0 to 37.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 71
Boring Location: GS-AP-MW-23V
Date: 9/25/2021
Sample Depth: Interval 37.0 - 47.0
Comments: Run 6
File Name: MW-23V 37.0 - 47.0.JPG





Photograph ID: 72
Boring Location: GS-AP-MW-23V
Date: 9/25/2021
Sample Depth: Interval 47.0 - 57.0
Comments: Run 7
File Name: MW-23V 47.0 - 57.0.JPG





Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 73	
Boring Location: GS-AP-MW-23V	
Date: 9/25/2021	
Sample Depth: Interval 57.0 - 67.0	
Comments: Run 8	
File Name: MW-23V 57.0 -67.0.JPG	

Photograph ID: 74	
Boring Location: GS-AP-MW-23V	
Date: 9/25/2021	
Sample Depth: Interval 67.0 - 77.0	
Comments: Run 9	
File Name: MW-23V 67.0 to 77.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 75			
Boring Location: GS-AP-MW-23V			
Date: 9/25/2021			
Sample Depth: Interval 77.0 87.0			
Comments: Run 10			
File Name: MW-23V 77.0 to 87.0.JPG			
Photograph ID: 76			
Boring Location: GS-AP-MW-27HR			
Date: 6/22/2021			
Sample Depth: Interval 0.0 - 7.0			
Comments: Run 1			
File Name: MW-27HR 0.0 to 7.0.JPG			

Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 77			
Boring Location: GS-AP-MW-27HR			
Date: 6/23/2021			
Sample Depth: Interval 7.0 - 17.0			
Comments: Run 2			
File Name: MW-27HR 7.0 to 17.0.JPG			
Photograph ID: 78			
Boring Location: GS-AP-MW-27HR			
Date: 6/23/2021			
Sample Depth: Interval 17.0 - 27.0			
Comments: Run 3			
File Name: MW-27HR 17.0 to 27.0.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 79
Boring Location: GS-AP-MW-27HR
Date: 6/23/2021
Sample Depth: Interval 27.0 - 30.0
Comments: Run 4
File Name: MW-27HR 27.0 - 30.0.JPG



Photograph ID: 80
Boring Location: GS-AP-MW-31V
Date: 9/22/2021
Sample Depth: Interval 0.0 - 7.0
Comments: Run 1
File Name: MW-31V 0.0 to 7.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 81
Boring Location: GS-AP-MW-31V
Date: 9/22/2021
Sample Depth: Interval 7.0 - 12.0
Comments: Run 2
File Name: MW-31V 7.0 to 12.0.JPG



Photograph ID: 82
Boring Location: GS-AP-MW-31V
Date: 9/22/2021
Sample Depth: Interval 12.0 - 17.0
Comments: Run 2
File Name: MW-31V 12.0 to 17.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 83
Boring Location: GS-AP-MW-31V
Date: 9/22/2021
Sample Depth: Interval 22.0 - 27.0
Comments: Run 4
File Name: MW-31V 22.0 to 27.0.JPG



Photograph ID: 84
Boring Location: GS-AP-MW-31V
Date: 9/22/2021
Sample Depth: Interval 27.0 - 30.0
Comments: Run 5
File Name: MW-31V 27.0 to 30.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 85	
Boring Location: GS-AP-MW-36V	
Date: 8/18/2021	
Sample Depth: Interval 0.0 - 7.0	
Comments: Run 1	
File Name: MW-36V 0.0 to 7.0.JPG	

Photograph ID: 86	
Boring Location: GS-AP-MW-36V	
Date: 8/18/2021	
Sample Depth: Interval 7.0 - 17.0	
Comments: Run 2	
File Name: MW-36V 7.0 to 17.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 87	
Boring Location: GS-AP-MW-36V	
Date: 8/18/2021	
Sample Depth: Interval 17.0 - 27.0	
Comments: Run 3	
File Name: MW-36V 17.0 to 27.0.JPG	

Photograph ID: 88	
Boring Location: GS-AP-MW-36V	
Date: 8/19/2021	
Sample Depth: Interval 27.0 - 37.0	
Comments: Run 4	
File Name: MW-36V 27.0 to 30.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL



Photograph ID: 89	
Boring Location: GS-AP-MW-37HR	
Date: 7/24/2021	
Sample Depth: Interval 0.0 - 7.0	
Comments: Run 1	
File Name: MW-37HR_0_7.JPG	



Photograph ID: 90	
Boring Location: GS-AP-MW-37HR	
Date: 7/24/2021	
Sample Depth: Interval 7.0 - 17.0	
Comments: Run 2	
File Name: MW-37HR_7_17.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 91	
Boring Location: GS-AP-MW-37HR	
Date: 7/24/2021	
Sample Depth: Interval 17.0 - 27.0	
Comments: Run 3	
File Name: MW-37HR_17_27.JPG	

Photograph ID: 92	
Boring Location: GS-AP-MW-37HR	
Date: 7/24/2021	
Sample Depth: Interval 27.0 - 30.0	
Comments: Run 4	
File Name: MW-37HR_27_30.JPG	



Client: Southern Company Services (SCS)		Project: Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment	
Site Name: Plant Gorgas		Site Location: Parrish, AL	
Photograph ID: 93			
Boring Location: GS-AP-MW-37HR			
Date: 7/24/2021			
Sample Depth: Interval 30.0 - 37.0			
Comments: Run 5			
File Name: MW-37HR_30_37.JPG			
Photograph ID: 94			
Boring Location: GS-AP-MW-37HR			
Date: 7/24/2021			
Sample Depth: Interval 37.0 - 40.0			
Comments: Run 6			
File Name: MW-37HR_37_40.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 95			
Boring Location: GS-AP-MW-45H			
Date: 8/23/2021			
Sample Depth: Interval 0.0 - 10.0			
Comments: Runs 1 & 2			
File Name: MW-45H 0.0 to 10.0.JPG			
Photograph ID: 96			
Boring Location: GS-AP-MW-45H			
Date: 8/23/2021			
Sample Depth: Interval 16.0 - 24.0			
Comments: Run 3			
File Name: MW-45H 16.0 to 24.0.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 97	
Boring Location: GS-AP-MW-45H	
Date: 8/23/2021	
Sample Depth: Interval 24.0 - 30.0	
Comments: Run 4	
File Name: MW-45H 24.0 to 30.0.JPG	

Photograph ID: 98	
Boring Location: GS-AP-MW-45V	
Date: 8/22/2021	
Sample Depth: Interval 0.0 - 7.0	
Comments: Run 1	
File Name: MW-45V 0.0 to 7.0.JPG	

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 99			
Boring Location: GS-AP-MW-45V			
Date: 8/22/2021			
Sample Depth: Interval 7.0 - 17.0			
Comments: Run 2			
File Name: MW-45V 7.0 to 17.0.JPG			
Photograph ID: 100			
Boring Location: GS-AP-MW-45V			
Date: 8/22/2021			
Sample Depth: Interval 17.0 - 24.0			
Comments: Run 3			
File Name: MW-45V 17.0 to 24.0.JPG			

Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 101
Boring Location: GS-AP-MW-45V
Date: 8/22/2021
Sample Depth: Interval 24.0 - 27.0
Comments: Run 4
File Name: MW-45V 24.0 to 27.0.JPG



Photograph ID: 102
Boring Location: GS-AP-MW-45V
Date: 8/22/2021
Sample Depth: Interval 27.0 - 30.0
Comments: Run 5
File Name: MW-45V 27.0 to 30.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 103
Boring Location: GS-AP-MW-47
Date: 10/25/2021
Sample Depth: Interval 0.0 - 6.0
Comments: Run 1
File Name: MW-47 0.0 to 6.0.JPG



Photograph ID: 104
Boring Location: GS-AP-MW-47
Date: 10/26/2021
Sample Depth: Interval 6.0 - 12.0
Comments: Run 2
File Name: MW-47 6.0 to 12.0.JPG




Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL

Photograph ID: 105
Boring Location: GS-AP-MW-47
Date: 10/26/2021
Sample Depth: Interval 12.0 - 16.0
Comments: Run 3
File Name: MW-47 12.0 to 16.0.JPG



Photograph ID: 106
Boring Location: GS-AP-MW-47
Date: 10/26/2021
Sample Depth: Interval 16.0 - 26.0
Comments: Run 4
File Name: MW-47 16.0 to 26.0.JPG



Client:	Southern Company Services (SCS)	Project:	Ash Pond Replacement Monitoring Well Installation and Monitoring Well Abandonment
Site Name:	Plant Gorgas	Site Location:	Parrish, AL
Photograph ID: 107	 <p style="text-align: right;">Quinton AL United States Oct 26, 2021 at 09:47:32</p>		
Boring Location: GS-AP-MW-47			
Date: 10/26/2021			
Sample Depth: Interval 26.0 - 36.0			
Comments: Run 5			
File Name: MW-47 26.0 to 36.0.JPG			

Appendix B



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-2																		
	Date	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
Appendix III		Units																		
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
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
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
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
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
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
TDS	mg/L	390	398	395	381	376	391	384	404	416	--	365	430	341	358	337	328	318	333	316
Appendix IV																				
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
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	<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
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
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	0.000505 J	0.000849 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 226 + 228	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
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
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	0.0495 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
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	0.00359 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
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
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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-3		GS-AP-MW-6																	
	Date	02/17/2021	08/03/2021	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	
Appendix III																					
Units																					
Boron	mg/L	0.426	0.386	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	
Calcium	mg/L	39.3	30.8	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	
Chloride	mg/L	17.4	13.6	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	
Fluoride	mg/L	0.1	0.102	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	
pH_Field	pH	7.71	7.82	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	
Sulfate	mg/L	158	99.4	203	209	224	249	309	290	300	310	260	--	210	170	195	176	148	115	116	
TDS	mg/L	387	333	394	444	456	491	580	554	566	580	524	--	458	404	382	381	328	269	274	
Appendix IV																					
Antimony	mg/L	<0.000507	<0.000508	<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	
Arsenic	mg/L	0.000168 J	0.000144 J	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	
Barium	mg/L	0.59	0.589	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	
Beryllium	mg/L	<0.000406	<0.000406	<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	
Cadmium	mg/L	<6.8e-005	<6.8e-005	<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	0.000326 J	0.000268 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	<0.002	0.000268 J	
Cobalt	mg/L	<6.8e-005	<6.8e-005	<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	
Combined Radium 226 + 228	pCi/L	0.331 U	0.978 U	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	
Fluoride	mg/L	0.1	0.102	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	
Lead	mg/L	<6.8e-005	<6.8e-005	<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	0.0995	0.088	<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	
Mercury	mg/L	<0.0003	<0.0003	<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	0.0113	0.00977	<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	
Selenium	mg/L	<0.000507	<0.000508	<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	
Thallium	mg/L	<6.8e-005	<6.8e-005	<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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-6D																		
	Date	07/27/2021	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
Appendix III		Units																		
Boron	mg/L	0.873	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
Calcium	mg/L	52.6	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
Chloride	mg/L	17	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
Fluoride	mg/L	0.2	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
pH_Field	pH	6.67	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
Sulfate	mg/L	114	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
TDS	mg/L	273	302	298	306	291	285	305	301	311	289	--	303	309	277	296	303	314	301	262
Appendix IV																				
Antimony	mg/L	0.00123	<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
Arsenic	mg/L	0.00634	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
Barium	mg/L	0.0876	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
Beryllium	mg/L	<0.000406	<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
Cadmium	mg/L	<6.8e-005	<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
Chromium	mg/L	0.000239 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	<0.002	0.000264 J	0.000241 J
Cobalt	mg/L	0.000643	<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 226 + 228	pCi/L	0.87 U	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
Fluoride	mg/L	0.2	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
Lead	mg/L	7.75e-005 J	<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	0.0576	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
Mercury	mg/L	<0.0003	<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
Molybdenum	mg/L	0.0452	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
Selenium	mg/L	0.00124	<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
Thallium	mg/L	<6.8e-005	<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

- Notes:**
 1. mg/L - Milligrams per Liter
 2. pCi/L - picocuries per Liter
 3. J - Result is an estimated value
 4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-7																	
		Date	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
Appendix III		Units																	
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
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
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
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
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
Sulfate	mg/L	154	146	131	141	135	140	140	150	140	--	120	130	156	145	149	131	130	133
TDS	mg/L	358	370	370	353	338	352	362	348	362	--	338	333	354	344	334	351	349	340
Appendix IV																			
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
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
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
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
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
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
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
Combined Radium 226 + 228	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	1.74	0.373 U	1.33
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
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
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
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
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
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
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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-8																	
		Date	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
Appendix III		Units																	
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
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
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
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
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
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
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
Appendix IV																			
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	<0.000507	<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
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
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
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
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
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
Combined Radium 226 + 228	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
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
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	8.09e-005 J	0.000149 J
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	0.00796 J	0.00832 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
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	<6.8e-005	<6.8e-005
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
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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-9												
		Date	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
Appendix III		Units												
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
Appendix IV														
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 226 + 228	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
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
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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-11												
		Date	08/02/2016	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
Appendix III		Units												
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
Appendix IV														
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 226 + 228	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
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
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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-12																	
		Date	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
Appendix III		Units																	
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
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
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
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
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
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
TDS	mg/L	546	542	518	424	379	334	332	308	286	--	235	211	193	253	236	216	224	219
Appendix IV																			
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
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
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
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
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
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	<0.000203	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	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	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
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
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
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	0.0279	0.0249	0.0354
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
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
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
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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-13													
		Date	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
Appendix III		Units													
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	<0.02	<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	
Appendix IV															
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 226 + 228	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	
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	
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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-14													
		Date	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
Appendix III		Units													
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	<0.02	<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	
Appendix IV															
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 226 + 228	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	
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	
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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-15																	
		Date	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
Appendix III		Units																	
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
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
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
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
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
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
TDS	mg/L	640	434	394	387	303	305	329	331	364	--	340	448	354	536	515	600	616	632
Appendix IV																			
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
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
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
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
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
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
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	8.79e-005 J
Combined Radium 226 + 228	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
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
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	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
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
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
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
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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-16S				GS-AP-MW-16D															
		Date	09/21/2020	02/10/2021	06/09/2021	08/03/2021	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
Appendix III																					
Units																					
Boron	mg/L	0.0777 J	0.0762 J	0.0817 J	0.0639 J	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	
Calcium	mg/L	10.9	15.7	4.84	23.9	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	
Chloride	mg/L	5.42	6.17	3.81	3.29	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	
Fluoride	mg/L	0.572	0.529	0.527	0.481	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	
pH_Field	pH	9.99	10.37	9.36	10.68	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	
Sulfate	mg/L	2.95	3.84	7.41	9.32	13.4	12.9	11.6	12.7	12.2	12	13	12	12	--	13	13	14.1	14.1	14.1	
TDS	mg/L	426	402	353	343	222	220	223	211	206	215	212	227	230	--	216	191	207	208	205	
Appendix IV																					
Antimony	mg/L	<0.0008	<0.000507	<0.000507	<0.000508	<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	
Arsenic	mg/L	0.00174 J	0.00173	0.00256	0.00323	<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	
Barium	mg/L	0.0766	0.0976	0.0177	0.0565	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	
Beryllium	mg/L	<0.0006	<0.000406	<0.000406	<0.000406	<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	
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<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	
Chromium	mg/L	<0.002	0.000246 J	0.000977 J	0.000844 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	
Cobalt	mg/L	<0.002	<6.8e-005	0.000113 J	0.000192 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	
Combined Radium 226 + 228	pCi/L	0.47 U	0.63 U	0.61 U	0.362 U	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	
Fluoride	mg/L	0.572	0.529	0.527	0.481	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	
Lead	mg/L	<0.001	0.000105 J	0.000395	0.000389	<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	
Lithium	mg/L	0.074	0.103	0.0574	0.0707	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	
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<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	
Molybdenum	mg/L	0.041	0.0402	0.0217	0.0254	<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	
Selenium	mg/L	<0.002	<0.000507	<0.000507	<0.000508	<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	
Thallium	mg/L	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<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	

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
 Historical Analytical Data
 Gorgas Ash Pond
 2016-Present

Analytes	Wells	Date		
		09/22/2020	02/10/2021	08/09/2021
Appendix III				
Units				
Boron	mg/L	<0.03	<0.03	<0.03
Calcium	mg/L	32	34.6	33.2
Chloride	mg/L	2.94	3.19	3.08
Fluoride	mg/L	0.123	0.103	0.131
pH_Field	pH	7.52	7.73	7.53
Sulfate	mg/L	13.6	15.8	14.4
TDS	mg/L	218	224	207
Appendix IV				
Antimony	mg/L	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	<0.001	0.000491	9.58e-005 J
Barium	mg/L	0.342	0.356	0.334
Beryllium	mg/L	<0.0006	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	0.00107	0.000675 J
Cobalt	mg/L	<0.002	0.000252	8.52e-005 J
Combined Radium 226 + 228	pCi/L	0.59 U	0.285 U	1.07 U
Fluoride	mg/L	0.123	0.103	0.131
Lead	mg/L	<0.001	0.000873	0.00016 J
Lithium	mg/L	0.0343	0.0376	0.0326
Mercury	mg/L	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	0.00014 J	0.00069
Selenium	mg/L	<0.002	<0.000507	<0.000508
Thallium	mg/L	<0.0002	<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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-17																		
	Date	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
Appendix III		Units																		
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
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
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
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	0.295
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
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	7.92
TDS	mg/L	408	441	424	466	414	444	446	493	500	--	528	462	540	684	516	493	658	548	435
Appendix IV																				
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
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
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	0.0875
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
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	0.00255	0.000408 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	0.000102 J	<6.8e-005
Combined Radium 226 + 228	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
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	0.295
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	0.000175 J	<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
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	0.00738 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
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
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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-18																
		Date	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
Appendix III		Units																
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
Appendix IV																		
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 226 + 228	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
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
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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-19																	
		Date	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
Appendix III		Units																	
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
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
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	4.85
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
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
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
TDS	mg/L	245	267	275	255	272	271	265	287	293	--	301	303	296	302	302	300	324	321
Appendix IV																			
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
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	0.00133
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	0.343
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
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
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
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
Combined Radium 226 + 228	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
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
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
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
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
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	0.00271
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
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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-6V				GS-AP-MW-21														
	Date	09/08/2020	09/15/2020	02/03/2021	08/02/2021	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
Appendix III																				
Units																				
Boron	mg/L	0.0974 J	0.0974 J	0.1 J	0.101 J	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
Calcium	mg/L	1.8	1.74	1.5	2.1	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
Chloride	mg/L	50.4	49.8	48	94.1	28.1	26.8	26	25.3	23.8	28	27	28	29	--	27	31	32.3	36	49.5
Fluoride	mg/L	4.46	4.59	4.28	4.45	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
pH_Field	pH	8.67	8.76	8.9	8.76	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
Sulfate	mg/L	9.06	7.02	4.29	14.1	9.14	8.71	8.54	11.5	17	25	28	33	43	--	110	160	215	224	228
TDS	mg/L	810	857	840	833	348	368	348	352	352	370	342	367	508	--	438	520	582	630	661
Appendix IV																				
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<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
Arsenic	mg/L	<0.001	<0.001	0.000767	0.000936	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
Barium	mg/L	0.164	0.16	0.124	0.143	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
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<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
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<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
Chromium	mg/L	<0.002	<0.002	0.000274 J	0.000573 J	<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
Cobalt	mg/L	<0.002	<0.002	8.19e-005 J	0.000114 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
Combined Radium 226 + 228	pCi/L	-0.0377 U	1.25	0.2 U	1.53	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
Fluoride	mg/L	4.46	4.59	4.28	4.45	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
Lead	mg/L	<0.001	<0.001	0.000155 J	0.000233	<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
Lithium	mg/L	0.138	0.136	0.156	0.152	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
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<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
Molybdenum	mg/L	0.00317 J	0.00256 J	0.00284	0.00438	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
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<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
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-9V			GS-AP-MW-12V				GS-AP-MW-15V				GS-AP							
		09/23/2020	02/08/2021	08/04/2021	03/23/2020	09/22/2020	02/02/2021	08/10/2021	02/21/2019	09/25/2019	03/24/2020	09/23/2020	02/01/2021	08/09/2021	03/18/2020	09/21/2020	02/09/2021	08/03/2021	03/24/2020	09/17/2020
Appendix III		Units																		
Boron	mg/L	0.0871 J	0.0991 J	0.0993 J	0.0316 J	0.0348 J	0.0358 J	<0.03	0.0303 J	0.0347 J	0.0343 J	0.0322 J	<0.03	<0.03	0.0565 J	0.0712 J	0.0722 J	0.0601 J	0.0772 J	0.0824 J
Calcium	mg/L	1.96	1.95	1.76	42.9	45.3	44.8	45.1	52.3	33.4	48.9	44.8	48.9	35.7	8.01	8.2	10	10.6	13.9	9.69
Chloride	mg/L	56.9	39.8	54.8	5.13	7.57	10.8	18.8	3.77	3.84	4.46	4.63	3.86	4.44	108	171	197	176	5.72	6.57
Fluoride	mg/L	0.208	0.203	0.24	0.187	0.174	0.183	0.166	0.205	0.185	0.155	0.176	0.169	0.187	0.243	0.372	0.329	0.278	0.228	0.237
pH_Field	pH	10.71	10.69	10.95	6.97	7.08	6.94	7.12	7.82	9.29	7.8	8.84	7.3	8.77	10.89	10.07	9.55	8.97	7.89	9.15
Sulfate	mg/L	248	232	231	18.7	21.2	31.2	32.7	<0.5	1.61	<0.5	6.56	<0.5	1.85	261	348	350	241	27.7	15.2
TDS	mg/L	642	684	594	268	285	314	309	237	183	206	195	240	145	873	1090	1040	782	381	387
Appendix IV																				
Antimony	mg/L	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	0.000841 J	0.0025 J	0.00128 J	0.00152 J	0.000861 J	0.000891 J	0.0028 J	0.0028 J	0.00237	0.000972 J	<0.0008	<0.0008
Arsenic	mg/L	<0.001	0.000624	0.000537	<0.001	<0.001	0.000101 J	0.000318	<0.001	0.00129 J	0.00266 J	0.00176 J	0.00154	0.00112	0.011	0.0167	0.0165	0.0105	<0.001	<0.001
Barium	mg/L	0.157	0.151	0.148	0.215	0.187	0.17	0.165	1.35	1.06	1.43	1.27	1.6	1.07	0.155	0.18	0.2	0.164	0.295	0.223
Beryllium	mg/L	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003
Chromium	mg/L	<0.002	0.000705 J	0.000422 J	<0.002	<0.002	0.000228 J	0.000292 J	<0.002	0.00202 J	0.00774 J	0.00362 J	0.00311	0.00146	0.00716 J	0.00239 J	0.00142	0.000507 J	<0.002	<0.002
Cobalt	mg/L	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	0.00277 J	<0.002	0.00129	0.000433	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002
Combined Radium 226 + 228	pCi/L	0.468 U	0.667 U	0.337 U	0.156 U	0.536 U	0.154 U	0.895 U	0.296 U	1.03	0.877 U	1.38	0.944 U	0.989 U	0.566 U	0.494 U	0.55 U	1.13 U	0.847	0.438 U
Fluoride	mg/L	0.208	0.203	0.24	0.187	0.174	0.183	0.166	0.205	0.185	0.155	0.176	0.169	0.187	0.243	0.372	0.329	0.278	0.228	0.237
Lead	mg/L	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	0.00279 J	0.0014 J	0.0013	0.000476	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001
Lithium	mg/L	0.179	0.239	0.213	0.0309	0.0293	0.0299	0.031	0.0468	0.0611	0.0462	0.0409	0.0384	0.0398	0.208	0.116	0.122	0.0986	0.0714	0.073
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	0.0404	0.0396	0.0367	<0.002	<0.002	0.000538	0.00269	0.00253 J	0.00942 J	0.00454 J	0.00463 J	0.00164	0.00302	0.0327	0.0538	0.0522	0.0311	<0.002	0.00241 J
Selenium	mg/L	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002
Thallium	mg/L	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
 Historical Analytical Data
 Gorgas Ash Pond
 2016-Present

Analytes	Wells	PZ-16	
		Date	
		02/17/2021	08/09/2021
Appendix III			
	Units		
Boron	mg/L	0.089 J	0.0747 J
Calcium	mg/L	9.59	18.5
Chloride	mg/L	6.69	6.22
Fluoride	mg/L	0.219	0.235
pH_Field	pH	8.32	9.09
Sulfate	mg/L	14.1	13.6
TDS	mg/L	397	384
Appendix IV			
Antimony	mg/L	<0.000507	<0.000508
Arsenic	mg/L	0.000258	0.00059
Barium	mg/L	0.27	0.244
Beryllium	mg/L	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.000203	0.000403 J
Cobalt	mg/L	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.753 U	1.47
Fluoride	mg/L	0.219	0.235
Lead	mg/L	0.000148 J	0.000236
Lithium	mg/L	0.0762	0.0657
Mercury	mg/L	<0.0003	<0.0003
Molybdenum	mg/L	0.00132	0.00221
Selenium	mg/L	<0.000507	<0.000508
Thallium	mg/L	<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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	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	03/25/2020	09/22/2020	02/10/2021	02/26/2019	03/25/2020	09/22/2020	02/03/2021	03/23/2020	09/23/2020	02/09/2021	08/11/2021
Appendix III		Units																
Boron	mg/L	0.0337 J	0.0532 J	0.0482 J	0.0478 J	0.0396 J	0.0368 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
Calcium	mg/L	30.6	29.7	31.1	29.3	31.8	33	34.5	26.2	40.5	13.6	6.18	5.12	5.57	110	119	73.8	13.8
Chloride	mg/L	3.56	3.69	3.72	3.74	3.49	3.12	2.88	2.73	3.2	7.13	6.23	5.57	5.68	981	1100	592	162
Fluoride	mg/L	0.239	0.245	0.243	0.278	0.244	0.276	0.396	0.392	0.368	0.165	0.353	0.368	0.334	0.494	0.641	0.546	0.41
pH_Field	pH	8.03	7.65	7.63	7.53	7.58	7.65	6.8	7	6.9	8.02	8.19	8.35	8.42	7.93	7.81	7.87	8.28
Sulfate	mg/L	15.2	11.8	9.69	11.1	8.81	10.2	355	245	390	39.9	16.5	14.4	14.6	1050	1120	645	137
TDS	mg/L	346	365	364	368	356	333	738	648	787	238	287	290	308	3410	3690	2250	712
Appendix IV																		
Antimony	mg/L	0.00115 J	<0.0008	<0.0008	<0.0008	<0.000507	<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
Arsenic	mg/L	0.0011 J	0.00149 J	<0.001	<0.001	0.000243	0.000135 J	0.0275	0.0119	0.016	0.00368 J	0.0063	0.00654	0.00588	0.0159	0.01	0.0063	0.00161
Barium	mg/L	0.191	0.208	0.314	0.299	0.308	0.353	0.028	0.0432	0.0405	0.243	0.234	0.253	0.26	0.0574	0.0438	0.028	0.0535
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<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
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<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
Chromium	mg/L	<0.002	0.00405 J	<0.002	<0.002	0.000313 J	0.000323 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
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<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
Combined Radium 226 + 228	pCi/L	0.398 U	0.373 U	0.0656 U	0.542 U	0.448 U	0.738 U	0.13 U	0.96	0.773 U	0.278 U	-0.00344 U	1.02	0.921 U	0.982	0.563 U	0.867 U	0.782 U
Fluoride	mg/L	0.239	0.245	0.243	0.278	0.244	0.276	0.396	0.392	0.368	0.165	0.353	0.368	0.334	0.494	0.641	0.546	0.41
Lead	mg/L	0.00189 J	<0.001	<0.001	<0.001	<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
Lithium	mg/L	0.0671	0.0809	0.0646	0.0574	0.0585	0.056	0.109	0.0789	0.12	0.0423	0.0244	0.0254	0.0293	0.146	0.137	0.124	0.048
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
Molybdenum	mg/L	0.00577 J	0.00906 J	0.00508 J	0.00664 J	0.00252	0.00206	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
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.002	<0.002	<0.002	<0.000507	<0.002	<0.002	<0.000507	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<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

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-PZ-22				GS-AP-MW-23H						GS-AP-MW-24H						GS-AP-25H																							
	Date	03/24/2020	09/17/2020	02/02/2021	08/03/2021	02/20/2019	09/23/2019	03/17/2020	09/17/2020	02/03/2021	07/27/2021	02/26/2019	09/24/2019	03/18/2020	09/17/2020	02/02/2021	08/03/2021	02/27/2019	09/23/2019	03/25/2020																					
Appendix III																					Units																				
Boron	mg/L	0.0521 J	0.0454 J	0.0486 J	0.0478 J	0.0498 J	0.0641 J	0.0504 J	0.0637 J	0.0425 J	0.0474 J	0.0725 J	0.0821 J	0.0811 J	0.069 J	0.0685 J	0.071 J	<0.02	<0.03	<0.03																					
Calcium	mg/L	19.3	12.6	16.5	16	64.5	80.6	79.8	87.2	75.6	76.8	45.9	46.5	44	45.5	42.4	43.4	29.1	29.6	28.6																					
Chloride	mg/L	2.53	2.46	2.99	2.67	2.58	2.26	2.62	1.92	2.07	2.25	3.33	2.89	3.5	3.19	3.06	2.91	2.87	2.35	2.73																					
Fluoride	mg/L	0.387	0.402	0.389	0.419	0.188	0.144	0.241	0.117	0.156	0.118	0.194	0.201	0.206	0.217	0.209	0.198	0.14	0.146	0.131																					
pH_Field	pH	7.77	8.81	7.5	7.74	6.5	5.76	5.95	5.74	6.22	5.65	7.37	6.59	7	7.02	6.93	6.94	7.25	7.25	7.24																					
Sulfate	mg/L	70.1	79.9	84.1	74.7	352	394	356	361	339	336	11.1	15.3	12.2	6.7	6.43	6.21	4.89	16.9	3.25																					
TDS	mg/L	412	438	446	414	560	598	626	648	612	581	252	253	250	250	259	242	266	278	269																					
Appendix IV																																									
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	0.000809 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	0.000807 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	0.00094 J	<0.0008	<0.0008																					
Arsenic	mg/L	0.00367 J	0.00387 J	0.00338	0.00296	0.0306	0.0369	0.0524	0.0579	0.0562	0.0494	<0.001	<0.001	<0.001	<0.001	0.000341	0.000333	<0.001	<0.001	<0.001																					
Barium	mg/L	0.104	0.109	0.0891	0.0953	0.0227	0.0148	0.0143	0.0146	0.0138	0.0133	0.881	1.04	0.964	0.988	0.952	1.04	0.622	0.922	0.868																					
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006																					
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003																					
Chromium	mg/L	<0.002	<0.002	<0.000203	0.000242 J	<0.002	<0.002	<0.002	<0.002	0.000222 J	<0.000203	<0.002	<0.002	<0.002	<0.002	0.000382 J	0.000447 J	<0.002	0.00295 J	0.00547 J																					
Cobalt	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<0.002	0.000512	0.000487	<0.002	<0.002	<0.002	<0.002	0.000192 J	0.000237	<0.002	<0.002	0.00207 J																					
Combined Radium 226 + 228	pCi/L	0.878	0.896	1.01 U	0.195 U	0.0759 U	0.00709 U	0.989	0.66 U	0.767 U	0.124 U	0.9	1.23	0.788	0.298 U	1.03 U	1.3 U	0.492	0.564 U	0.707 U																					
Fluoride	mg/L	0.387	0.402	0.389	0.419	0.188	0.144	0.241	0.117	0.156	0.118	0.194	0.201	0.206	0.217	0.209	0.198	0.14	0.146	0.131																					
Lead	mg/L	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	0.00109 J	0.0019 J																					
Lithium	mg/L	0.0734	0.0862	0.0743	0.0685	0.031	0.0324	0.0327	0.0333	0.0319	0.0308	0.0282	0.0275	0.0264	0.0237	0.0247	0.0249	0.0966	0.0945	0.0946																					
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	<0.002	<0.002	<0.002	<0.002	0.000902	0.000904	<0.002	<0.002	<0.002	<0.002	0.000563	0.00052	0.00286 J	<0.002	<0.002																					
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002																					
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	IW-26H		
		Date	09/21/2020	02/09/2021	08/10/2021
Appendix III		Units		
Boron	mg/L	0.0334 J	<0.03	<0.03
Calcium	mg/L	27.6	28.1	27.2
Chloride	mg/L	3.25	2.55	2.87
Fluoride	mg/L	0.151	0.112	0.152
pH_Field	pH	7.25	7.38	6.69
Sulfate	mg/L	4.54	5.76	4.73
TDS	mg/L	287	280	271
Appendix IV				
Antimony	mg/L	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	0.00143 J	0.000192 J	0.000194 J
Barium	mg/L	0.938	0.775	0.765
Beryllium	mg/L	<0.0006	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00804 J	<0.000203	0.000372 J
Cobalt	mg/L	0.00357 J	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	2.05	0.674 U	1.05 U
Fluoride	mg/L	0.151	0.112	0.152
Lead	mg/L	0.00309 J	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0958	0.0928	0.0932
Mercury	mg/L	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	0.000207	0.000157 J
Selenium	mg/L	<0.002	<0.000507	<0.000508
Thallium	mg/L	<0.0002	<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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-28H							GS-AP-MW-29H						GS-AP-MW-25HA			
		Date	03/13/2019	09/25/2019	03/16/2020	05/12/2020	09/22/2020	02/17/2021	08/09/2021	02/27/2019	09/24/2019	03/25/2020	09/22/2020	02/03/2021	08/04/2021	03/24/2020	09/17/2020	02/10/2021	08/12/2021
Appendix III		Units																
Boron	mg/L	0.0819 J	0.0784 J	0.0751 J	0.0719 J	0.0728 J	0.0748 J	0.063 J	0.0359 J	0.0305 J	<0.03	0.175	0.809	0.447	0.146	0.138	0.147	0.13
Calcium	mg/L	3.42	2.52	2.4	2.83	2.37	2.02	1.75	12.1	32.8	27.8	28.1	26.1	17.7	2.42	1.99	2.11	1.79
Chloride	mg/L	8	8.93	10.6	12.7	12.2	10.3	7.85	3.09	3.11	3.1	13.2	18.9	13.8	38	38.3	43.7	36.3
Fluoride	mg/L	0.187	0.172	0.183	0.195	0.181	0.18	0.204	0.218	0.183	0.194	0.198	0.267	0.353	1.77	1.93	1.81	2.01
pH_Field	pH	8.46	8.57	8.31	8.35	8.24	8.31	8.5	8.28	7.11	7.45	7.42	7.63	7.68	8.67	8.83	8.77	8.78
Sulfate	mg/L	30	10.2	9.91	14.3	10.5	6.39	3.49	20.7	32.6	29.4	81.6	135	74	201	173	171	125
TDS	mg/L	514	443	449	464	456	451	436	414	389	371	430	480	407	948	960	887	967
Appendix IV																		
Antimony	mg/L	0.00241 J	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	0.000932 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	0.00142 J	<0.001	<0.001	0.00135 J	0.00112 J	0.000796	0.000626	<0.001	0.00155 J	0.00141 J	0.00109 J	0.00794	0.00317	0.00798	0.00904	0.00923	0.00888
Barium	mg/L	0.164	0.0528	0.0411	0.0436	0.0385	0.0297	0.0407	0.517	0.712	0.527	0.499	0.318	0.264	0.147	0.164	0.208	0.2
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	0.00281 J	<0.002	0.000352 J	0.000499 J	<0.002	<0.002	<0.002	<0.002	<0.000203	0.000223 J	<0.002	<0.002	<0.000203	0.000354 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.136 U	0.648 U	0.762 U	0.425 U	1.02	0.911 U	0.706 U	0.556	1.09	0.036 U	0.591 U	0.102 U	1.02 U	-0.00194 U	-0.369 U	0.422 U	0.129 U
Fluoride	mg/L	0.187	0.172	0.183	0.195	0.181	0.18	0.204	0.218	0.183	0.194	0.198	0.267	0.353	1.77	1.93	1.81	2.01
Lead	mg/L	0.00208 J	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0625	0.0619	0.0627	0.0569	0.0574	0.0686	0.0633	0.07	0.0509	0.0528	0.0586	0.0915	0.0809	0.0461	0.0449	0.0579	0.0558
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
Molybdenum	mg/L	0.00555 J	0.00338 J	0.00463 J	0.00644 J	0.00616 J	0.00454	0.00412	<0.002	0.00424 J	0.0025 J	0.0281	0.0623	0.0377	0.0176	0.0182	0.0158	0.0125
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	0.00636 J	<0.000507	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<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
 4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-30HA					GS-AP-MW-31H				GS-AP-MW-32H				GS-AP-MW-33HO					
		Date	03/18/2020	05/13/2020	09/21/2020	02/17/2021	08/02/2021	03/18/2020	09/22/2020	02/01/2021	08/02/2021	03/24/2020	09/21/2020	02/10/2021	08/10/2021	03/17/2020	05/13/2020	09/15/2020	02/03/2021	07/27/2021
Appendix III		Units																		
Boron	mg/L	0.0734 J	0.0747 J	0.0814 J	0.0668 J	0.06 J	<0.03	<0.03	<0.03	<0.03	0.0492 J	0.0455 J	0.0477 J	0.0393 J	0.066 J	0.0409 J	0.0425 J	0.0453 J	0.0417 J	
Calcium	mg/L	36	35.3	29.4	29.7	43.8	6.06	5.31	4.92	4.6	2.62	3	3.24	3.59	42.3	25.2	29.5	30.3	30.5	
Chloride	mg/L	5.14	4.24	3.45	3.69	4.28	41.3	27.3	31.2	38.5	20.5	28.2	39.4	36.6	108	63.3	75.6	55.2	75.3	
Fluoride	mg/L	0.634	0.833	0.872	0.884	1.49	0.15	0.148	0.176	0.191	0.18	0.202	0.134	0.218	0.202	0.191	0.188	0.178	0.214	
pH_Field	pH	7.2	7.27	7.56	7.29	7.27	8.73	8.76	8.66	8.69	8.47	8.15	8.03	8.35	7.67	7.7	7.66	7.64	7.59	
Sulfate	mg/L	184	194	128	136	201	50.4	22.1	32.2	35.1	33.2	38.7	50.8	45.6	172	60	98.6	70.7	100	
TDS	mg/L	612	624	592	534	602	326	298	339	332	331	357	379	379	827	457	538	443	472	
Appendix IV																				
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	
Arsenic	mg/L	0.00813	0.00779	0.00551	0.00354	0.003	0.0012 J	<0.001	0.000325	0.000293	<0.001	<0.001	0.000838	0.000575	0.0044 J	0.00308 J	0.00275 J	0.00177	0.00143	
Barium	mg/L	0.0791	0.0819	0.0811	0.089	0.0965	0.106	0.0916	0.0974	0.102	0.0362	0.0396	0.0511	0.0475	0.329	0.324	0.469	0.465	0.46	
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	
Chromium	mg/L	<0.002	<0.002	<0.002	0.000418 J	0.000354 J	0.00264 J	<0.002	0.000345 J	0.000287 J	<0.002	<0.002	<0.000203	0.000268 J	<0.002	<0.002	<0.002	0.000207 J	0.000283 J	
Cobalt	mg/L	<0.002	<0.002	<0.002	0.00016 J	0.000217	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	
Combined Radium 226 + 228	pCi/L	2.26	0.604	1.1	0.902 U	1.8	0.0549 U	0.912	0.189 U	1.48 U	0.313 U	0.484 U	0.546 U	0.445 U	2.14	0.415 U	-0.106 U	0.313 U	0.408 U	
Fluoride	mg/L	0.634	0.833	0.872	0.884	1.49	0.15	0.148	0.176	0.191	0.18	0.202	0.134	0.218	0.202	0.191	0.188	0.178	0.214	
Lead	mg/L	<0.001	<0.001	<0.001	0.00028	0.000166 J	<0.001	<0.001	0.000102 J	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	
Lithium	mg/L	0.0528	0.0536	0.0494	0.0548	0.0582	0.0347	0.0357	0.0417	0.0411	0.0428	0.0421	0.0471	0.0466	0.0516	0.0455	0.0479	0.0534	0.0563	
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	0.00603 J	0.00519 J	0.00254 J	0.0019	0.00394	0.0102	0.00438 J	0.00447	0.00486	0.0826	0.0896	0.0889	0.0858	<0.002	0.00626 J	0.00496 J	0.00346	0.00574	
Selenium	mg/L	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002	<0.000507	<0.000508	
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<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
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-34HO					GS-AP-MW-35HO					GS-AP-MW-36H					GS-AP-MW-40H			GS-AP-M																					
		Date	03/16/2020	05/12/2020	09/16/2020	02/03/2021	07/27/2021	03/17/2020	05/12/2020	09/16/2020	02/04/2021	07/28/2021	03/17/2020	05/13/2020	09/17/2020	02/17/2021	08/04/2021	09/22/2020	02/02/2021	08/10/2021	02/08/2021																				
Appendix III																					Units																				
Boron	mg/L	0.0827 J	0.0929 J	0.0874 J	0.0964 J	0.108	<0.03	<0.03	<0.03	<0.03	<0.03	0.0394 J	0.0359 J	0.0345 J	0.0413 J	0.0449 J	0.0326 J	0.0305 J	<0.03	1.06																					
Calcium	mg/L	83.8	80.4	86.9	100	100	5.27	3.04	3.04	3.3	2.51	3.45	2.93	4.12	3.16	5.78	205	199	197	49.8																					
Chloride	mg/L	101	148	210	156	371	23.9	14.5	20.9	23.9	16.7	29.4	27.2	38.5	24.3	59.8	30.4	36.8	28	9.18																					
Fluoride	mg/L	0.338	0.37	0.364	0.298	0.366	0.166	0.167	0.162	0.152	0.207	0.214	0.224	0.209	0.22	0.31	0.114	0.123	0.113	0.152																					
pH_Field	pH	7.35	7.44	7.45	7.26	7.32	8.4	8.46	8.48	8.35	8.45	8.44	8.52	8.18	8.36	8.37	6.64	6.55	6.56	6.77																					
Sulfate	mg/L	1480	1330	1390	1610	1580	40.1	22.6	24.6	25.3	20.7	57.1	47.8	50.2	28.9	83.7	626	644	661	95.1																					
TDS	mg/L	2460	2440	2720	2930	2930	365	311	326	339	302	362	333	348	292	449	1310	1320	1240	317																					
Appendix IV																																									
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.000507	<0.000508	<0.000507																					
Arsenic	mg/L	0.00351 J	0.00668	0.00308 J	0.00257	0.00179	0.00105 J	<0.001	<0.001	0.000442	0.00024	0.00171 J	0.00122 J	0.0013 J	0.00102	0.00246	0.00193 J	0.000958	0.000457	0.000551																					
Barium	mg/L	0.0309	0.0379	0.0451	0.0543	0.0649	0.0426	0.0472	0.0532	0.052	0.0492	0.0353	0.03	0.0378	0.0463	0.0905	0.0417	0.0384	0.0358	0.0544																					
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.000406	<0.000406	<0.000406																					
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005																					
Chromium	mg/L	<0.002	<0.002	<0.002	0.000397 J	0.000499 J	<0.002	<0.002	<0.002	0.000211 J	0.000415 J	<0.002	<0.002	<0.002	0.000271 J	0.000317 J	<0.002	0.000222 J	0.00032 J	<0.000203																					
Cobalt	mg/L	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<0.002	0.000148 J	<6.8e-005	0.0027 J	0.002	0.0011	0.00175																					
Combined Radium 226 + 228	pCi/L	-0.085 U	0.345 U	0.286 U	0.485 U	0.732 U	7.32	1.02	0.435 U	0.527 U	0.0525 U	4.33	-0.225 U	-0.125 U	0.322 U	1.13	1.91	0.369 U	0.91 U	0.49 U																					
Fluoride	mg/L	0.338	0.37	0.364	0.298	0.366	0.166	0.167	0.162	0.152	0.207	0.214	0.224	0.209	0.22	0.31	0.114	0.123	0.113	0.152																					
Lead	mg/L	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	8.8e-005 J	<6.8e-005	<0.001	<6.8e-005	<6.8e-005	<6.8e-005																					
Lithium	mg/L	0.205	0.18	0.18	0.249	0.205	0.074	0.0693	0.0685	0.0734	0.0722	0.0342	0.0337	0.035	0.039	0.0455	0.0405	0.0571	0.0567	0.14																					
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	0.00386 J	0.0088 J	0.00598 J	0.00753	0.0143	0.00222 J	<0.002	<0.002	0.00273	0.0017	0.00571 J	0.00475 J	0.0105	0.0054	0.017	0.00293 J	0.00257	0.00171	0.00288																					
Selenium	mg/L	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.000507	<0.000508	<0.000507																					
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<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
4. "<MDL" or "U" indicates non-detect



Appendix B.
 Historical Analytical Data
 Gorgas Ash Pond
 2016-Present

Analytes	Wells	W-41HS
	Date	07/28/2021
Appendix III		
	Units	
Boron	mg/L	1.09
Calcium	mg/L	45.1
Chloride	mg/L	8.34
Fluoride	mg/L	0.172
pH_Field	pH	6.86
Sulfate	mg/L	103
TDS	mg/L	283
Appendix IV		
Antimony	mg/L	<0.000508
Arsenic	mg/L	0.000383
Barium	mg/L	0.0445
Beryllium	mg/L	<0.000406
Cadmium	mg/L	<6.8e-005
Chromium	mg/L	0.000311 J
Cobalt	mg/L	0.000294
Combined Radium 226 + 228	pCi/L	0.759 U
Fluoride	mg/L	0.172
Lead	mg/L	<6.8e-005
Lithium	mg/L	0.178
Mercury	mg/L	<0.0003
Molybdenum	mg/L	0.0044
Selenium	mg/L	<0.000508
Thallium	mg/L	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect



Appendix B.
Historical Analytical Data
Gorgas Ash Pond
2016-Present

Analytes	Wells	GS-AP-MW-38H				GS-AP-MW-41HD				GS-AP-MW-42H				GS-AP-MW-43HO				GS-AP-MW-44HO		
	Date	03/24/2020	09/22/2020	02/09/2021	08/04/2021	03/18/2020	09/17/2020	02/08/2021	08/03/2021	03/24/2020	09/22/2020	02/03/2021	08/04/2021	03/25/2020	09/22/2020	02/17/2021	08/04/2021	08/27/2020	09/15/2020	02/03/2021
Appendix III																				
Units																				
Boron	mg/L	0.0468 J	0.0461 J	0.0504 J	0.0479 J	1.45	1.42	1.48	1.48	<0.03	0.0469 J	0.053 J	0.0578 J	0.112	0.12	0.119	0.126	0.0366 J	0.0404 J	0.0472 J
Calcium	mg/L	9.33	9.56	10.6	12.2	56.6	61.1	60.8	57.1	149	142	134	133	4.11	2.82	4.82	4.58	2.89	2.94	2.87
Chloride	mg/L	12.6	24.8	28.1	33.1	6.02	6.63	6.44	6.07	3.35	7.07	10.1	9.75	90.6	78	96.3	69.4	27.1	36.2	44.8
Fluoride	mg/L	0.291	0.28	0.243	0.305	0.165	0.16	0.138	0.15	0.13	0.121	0.131	0.203	0.204	0.216	0.174	0.289	0.174	0.221	0.181
pH_Field	pH	7.99	7.96	8.06	7.75	7.2	7.22	7.36	6.97	6.28	6.51	6.47	6.41	8.24	8.66	8.72	8.75	8.9	8.94	8.9
Sulfate	mg/L	16.7	27	27	32.3	122	105	111	94.1	449	372	373	372	327	269	285	301	33.5	71.6	57
TDS	mg/L	335	339	355	368	309	318	326	307	850	800	768	740	930	910	853	855	435	564	592
Appendix IV																				
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	<0.0008	<0.0008	<0.000507	<0.000508	0.0013 J	0.000819 J	<0.000507
Arsenic	mg/L	0.00302 J	0.00304 J	0.0026	0.00287	<0.001	0.0016 J	0.00148	0.00289	0.00944	0.00912	0.00806	0.00846	0.00509	0.0039 J	0.00132	0.00125	0.00321 J	0.00184 J	0.000795
Barium	mg/L	0.253	0.319	0.356	0.359	0.0393	0.0414	0.0434	0.045	0.0253	0.0237	0.0216	0.0256	0.0927	0.0921	0.0894	0.102	0.0867	0.0783	0.0602
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.000203	<0.000203	<0.002	<0.002	0.000235 J	0.000251 J	<0.002	<0.002	0.000298 J	0.000262 J	<0.002	<0.002	0.000219 J	0.00031 J	<0.002	<0.002	0.000255 J
Cobalt	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	0.000585	0.000849	0.00218 J	<0.002	0.000752	0.000616	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.002	<0.002	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.862	1.1	0.746 U	0.844 U	0.64	0.14 U	0.409 U	0.453 U	0.0821 U	0.36 U	0.475 U	0.186 U	0.678 U	0.0466 U	0.629 U	0.949 U	0.798	0.311 U	0.145 U
Fluoride	mg/L	0.291	0.28	0.243	0.305	0.165	0.16	0.138	0.15	0.13	0.121	0.131	0.203	0.204	0.216	0.174	0.289	0.174	0.221	0.181
Lead	mg/L	<0.001	<0.001	8.23e-005 J	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	<6.8e-005	<6.8e-005	<0.001	<0.001	0.000328	0.000265	<0.001	<0.001	<6.8e-005
Lithium	mg/L	0.0632	0.0591	0.0676	0.0672	0.311	0.341	0.356	0.369	0.0346	0.0333	0.0356	0.0348	0.0505	0.0587	0.0723	0.0706	0.0411	0.0494	0.063
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	0.00445 J	0.00423 J	0.00267	0.00377	0.0158	0.026	0.0284	0.0286	<0.002	<0.002	0.00174	0.00169	<0.002	<0.002	0.00292	0.00385	0.0071 J	0.00858 J	0.00429
Selenium	mg/L	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507	<0.000508	<0.002	<0.002	<0.000507
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<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
 4. "<MDL" or "U" indicates non-detect



Appendix B.
 Historical Analytical Data
 Gorgas Ash Pond
 2016-Present

Analytes	Wells	
	Date	07/27/2021
Appendix III		
	Units	
Boron	mg/L	0.0429 J
Calcium	mg/L	1.46
Chloride	mg/L	33.4
Fluoride	mg/L	0.254
pH_Field	pH	9.04
Sulfate	mg/L	36.9
TDS	mg/L	506
Appendix IV		
Antimony	mg/L	<0.000508
Arsenic	mg/L	0.000343
Barium	mg/L	0.0758
Beryllium	mg/L	<0.000406
Cadmium	mg/L	<6.8e-005
Chromium	mg/L	<0.000203
Cobalt	mg/L	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.48 U
Fluoride	mg/L	0.254
Lead	mg/L	<6.8e-005
Lithium	mg/L	0.0568
Mercury	mg/L	<0.0003
Molybdenum	mg/L	0.00361
Selenium	mg/L	<0.000508
Thallium	mg/L	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix C

Appendix C. Historical Groundwater Elevations

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)										
		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
GS-AP-MW-1	490.68	382.93	--	DRY	382.95	382.91	382.91	382.93	382.92	382.94	382.93	382.87
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
GS-AP-PZ-18	402.38	--	402.38	278.86	278.52	276.36	--	273.90	282.71	--	287.28	281.54
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
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
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
GS-AP-PZ-22	532.38	--	--	278.73	278.43	276.31	274.79	273.88	282.63	286.16	287.18	281.54
*GS-AP-MW-7V	312.14	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-12V	481.32	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-17V	531.45	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-18V	404.61	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-23H	304.98	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-24H	261.35	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-11R	455.60	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-27R	535.26	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-37R	460.05	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. TOC for MW-12V has been resurveyed and pending results

Appendix C. Historical Groundwater Elevations

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)										
		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
*GS-AP-MW-25H	461.79	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-26H	394.68	--	--	--	--	--	--	--	--	--	--	--
*GS-AP-MW-27H	535.03	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-28H	513.82	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-29H	440.95	--	--	--	--	--	--	--	--	--	--	--
*GS-AP-MW-30H	582.49	--	--	--	--	--	--	--	--	--	--	--
*GS-AP-MW-30HS	582.53	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-9V	420.86	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-15V	455.89	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-21V	509.84	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-25HA	462.27	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-30HA	582.40	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-31H	587.39	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-32H	550.03	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-33HO	526.79	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-34HO	523.82	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-35HO	553.35	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-36H	536.61	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-37H	459.28	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-38H	345.74	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-39H	451.13	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-41HS	284.65	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-41HD	284.54	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-42H	340.62	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-43H	514.62	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-40HO	357.91	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-44HO	506.21	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-7VR	313.89	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-6V	275.44	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-11R	455.60	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-27R	535.26	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-37R	460.05	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. TOC for MW-12V has been resurveyed and pending results

Appendix C. Historical Groundwater Elevations

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)										
		8/21/2017	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
GS-AP-MW-1	490.68	382.90	382.93	DRY	382.89	382.88	385.41	382.90	383.18	382.94	382.88	382.92
GS-AP-MW-2	522.03	376.47	376.69	376.59	376.49	376.18	376.50	376.10	373.88	375.94	374.26	375.70
GS-AP-MW-3	512.29	374.63	375.18	374.99	374.88	374.64	375.16	374.79	372.92	374.66	372.56	374.08
GS-AP-MW-4	507.90	371.70	372.80	372.49	372.08	371.39	372.97	372.86	369.36	372.65	370.44	370.95
GS-AP-MW-5	487.17	367.25	368.42	368.07	368.09	367.27	369.39	369.01	--	--	--	--
GS-AP-MW-6S	274.67	257.70	256.76	256.75	256.70	256.98	256.84	256.77	257.27	257.81	258.31	258.14
GS-AP-MW-6D	274.50	263.30	262.01	262.11	261.95	263.06	262.62	262.89	263.13	263.58	263.88	263.40
GS-AP-MW-7	313.45	305.35	304.76	304.73	304.58	304.81	303.63	303.43	303.92	303.69	304.17	304.25
GS-AP-MW-8	434.61	389.87	391.02	390.73	391.08	389.43	391.66	391.88	387.52	390.10	389.42	390.61
GS-AP-MW-9	420.04	374.81	375.43	375.70	375.58	375.47	375.94	375.28	--	--	--	--
GS-AP-MW-10	468.41	343.78	343.71	344.09	344.10	343.35	--	344.05	--	--	--	--
GS-AP-MW-11	468.34	381.73	382.14	382.13	382.20	382.13	382.54	381.68	--	--	--	--
GS-AP-MW-12	450.67	380.72	380.91	380.85	380.84	380.81	380.86	380.30	378.16	380.13	378.74	380.21
GS-AP-MW-13	464.20	392.78	392.39	392.79	393.22	392.99	395.09	395.73	--	--	--	--
GS-AP-MW-14	472.40	371.46	372.11	372.11	371.88	371.77	372.46	371.98	--	--	--	--
GS-AP-MW-15	454.89	373.54	374.57	374.55	374.40	373.88	375.36	374.58	371.79	374.68	372.02	373.78
GS-AP-PZ-16	462.29	282.52	--	288.58	--	--	294.54	290.51	276.24	295.03	276.65	291.64
GS-AP-MW-16S	462.42	403.98	--	403.66	--	--	404.62	404.25	403.02	404.20	403.36	407.07
GS-AP-MW-16D	462.27	320.44	326.22	324.57	324.98	318.72	330.01	325.17	316.03	329.36	316.17	323.09
GS-AP-MW-17	531.88	351.56	358.80	357.07	355.09	277.68	358.92	360.49	349.34	359.09	350.15	359.58
GS-AP-MW-18	403.39	351.67	358.87	357.03	354.99	350.59	359.11	360.66	349.49	360.25	350.36	359.98
GS-AP-PZ-18	402.38	282.54	--	288.46	--	--	294.43	290.47	276.23	294.86	276.72	291.61
GS-AP-MW-19	495.58	383.01	383.40	383.50	383.52	383.72	384.44	384.09	382.96	383.82	382.54	384.03
GS-AP-MW-20	528.15	324.46	328.52	328.12	329.38	326.44	335.64	329.33	329.45	331.81	320.81	325.90
GS-AP-MW-21	509.48	347.58	349.73	349.98	350.33	346.15	352.67	349.05	343.85	352.02	344.25	347.94
GS-AP-PZ-22	532.38	282.46	--	288.52	--	--	294.43	290.48	276.21	295.02	276.58	291.50
*GS-AP-MW-7V	312.14	--	--	--	--	--	129.68	--	138.68	144.22	121.83	117.24
GS-AP-MW-12V	481.32	--	--	--	--	--	357.92	--	355.19	357.38	355.63	357.06
GS-AP-MW-17V	531.45	--	--	--	--	--	424.68	--	419.40	425.61	423.83	426.50
GS-AP-MW-18V	404.61	--	--	--	--	--	295.94	--	285.03	297.99	284.79	286.96
GS-AP-MW-23H	304.98	--	--	--	--	--	276.82	--	275.77	277.13	276.74	277.08
GS-AP-MW-24H	261.35	--	--	--	--	--	255.11	--	254.99	255.53	255.04	255.25
GS-AP-MW-11R	455.60	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-27R	535.26	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-37R	460.05	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. TOC for MW-12V has been resurveyed and pending results

Appendix C. Historical Groundwater Elevations

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)										
		8/21/2017	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
*GS-AP-MW-25H	461.79	--	--	--	--	--	301.10	--	292.31	301.11	300.39	301.87
GS-AP-MW-26H	394.68	--	--	--	--	--	299.13	--	297.55	299.07	297.98	298.98
*GS-AP-MW-27H	535.03	--	--	--	--	--	299.24	--	512.98	305.94	302.84	299.70
GS-AP-MW-28H	513.82	--	--	--	--	--	359.02	--	349.40	360.20	350.26	359.97
GS-AP-MW-29H	440.95	--	--	--	--	--	359.98	--	350.64	361.32	351.19	360.64
*GS-AP-MW-30H	582.49	--	--	--	--	--	582.49	--	311.02	313.15	307.96	309.19
*GS-AP-MW-30HS	582.53	--	--	--	--	--	582.53	--	DRY	535.15	Dry	534.83
GS-AP-MW-9V	420.86	--	--	--	--	--	--	--	--	368.30	365.63	367.46
GS-AP-MW-15V	455.89	--	--	--	--	--	--	--	--	314.63	301.24	309.63
GS-AP-MW-21V	509.84	--	--	--	--	--	--	--	--	--	334.94	339.54
GS-AP-MW-25HA	462.27	--	--	--	--	--	--	--	--	--	285.88	286.74
GS-AP-MW-30HA	582.40	--	--	--	--	--	--	--	--	295.09	276.84	291.89
GS-AP-MW-31H	587.39	--	--	--	--	--	--	--	--	355.18	351.86	352.97
GS-AP-MW-32H	550.03	--	--	--	--	--	--	--	--	309.74	293.82	302.28
GS-AP-MW-33HO	526.79	--	--	--	--	--	--	--	--	303.00	287.38	296.87
GS-AP-MW-34HO	523.82	--	--	--	--	--	--	--	--	294.92	288.81	291.46
GS-AP-MW-35HO	553.35	--	--	--	--	--	--	--	--	311.18	295.81	302.71
GS-AP-MW-36H	536.61	--	--	--	--	--	--	--	--	313.77	300.53	306.41
GS-AP-MW-37H	459.28	--	--	--	--	--	--	--	--	326.07	305.24	306.35
GS-AP-MW-38H	345.74	--	--	--	--	--	--	--	--	298.28	297.55	298.39
GS-AP-MW-39H	451.13	--	--	--	--	--	--	--	--	152.45	142.01	144.33
GS-AP-MW-41HS	284.65	--	--	--	--	--	--	--	--	264.27	262.29	263.20
GS-AP-MW-41HD	284.54	--	--	--	--	--	--	--	--	283.38	282.72	282.96
GS-AP-MW-42H	340.62	--	--	--	--	--	--	--	--	286.94	287.88	288.11
GS-AP-MW-43H	514.62	--	--	--	--	--	--	--	--	366.54	364.31	365.67
GS-AP-MW-40HO	357.91	--	--	--	--	--	--	--	--	--	276.66	278.12
GS-AP-MW-44HO	506.21	--	--	--	--	--	--	--	--	--	364.14	365.48
GS-AP-MW-7VR	313.89	--	--	--	--	--	--	--	--	--	233.28	264.39
GS-AP-MW-6V	275.44	--	--	--	--	--	--	--	--	--	264.51	262.18
GS-AP-MW-11R	455.60	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-27R	535.26	--	--	--	--	--	--	--	--	--	--	--
GS-AP-MW-37R	460.05	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. TOC for MW-12V has been resurveyed and pending results

Appendix C. Historical Groundwater Elevations

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)										
		7/26/2021										
GS-AP-MW-1	490.68	382.93										
GS-AP-MW-2	522.03	975.29										
GS-AP-MW-3	512.29	373.58										
GS-AP-MW-4	507.90	371.64										
GS-AP-MW-5	487.17	--										
GS-AP-MW-6S	274.67	257.65										
GS-AP-MW-6D	274.50	263.56										
GS-AP-MW-7	313.45	303.54										
GS-AP-MW-8	434.61	390.70										
GS-AP-MW-9	420.04	--										
GS-AP-MW-10	468.41	--										
GS-AP-MW-11	468.34	--										
GS-AP-MW-12	450.67	380.22										
GS-AP-MW-13	464.20	--										
GS-AP-MW-14	472.40	--										
GS-AP-MW-15	454.89	374.13										
GS-AP-PZ-16	462.29	277.41										
GS-AP-MW-16S	462.42	406.03										
GS-AP-MW-16D	462.27	316.97										
GS-AP-MW-17	531.88	354.23										
GS-AP-MW-18	403.39	354.30										
GS-AP-PZ-18	402.38	277.47										
GS-AP-MW-19	495.58	384.71										
GS-AP-MW-20	528.15	320.43										
GS-AP-MW-21	509.48	344.31										
GS-AP-PZ-22	532.38	277.43										
*GS-AP-MW-7V	312.14	122.43										
GS-AP-MW-12V	481.32	360.25										
GS-AP-MW-17V	531.45	426.11										
GS-AP-MW-18V	404.61	283.75										
GS-AP-MW-23H	304.98	277.06										
GS-AP-MW-24H	261.35	255.21										
GS-AP-MW-11R	455.60	--										
GS-AP-MW-27R	535.26	--										
GS-AP-MW-37R	460.05	--										

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. TOC for MW-12V has been resurveyed and pending results

Appendix C. Historical Groundwater Elevations

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)									
		7/26/2021									
*GS-AP-MW-25H	461.79	302.15									
GS-AP-MW-26H	394.68	299.34									
*GS-AP-MW-27H	535.03	--									
GS-AP-MW-28H	513.82	354.34									
GS-AP-MW-29H	440.95	354.99									
*GS-AP-MW-30H	582.49	308.31									
*GS-AP-MW-30HS	582.53	534.84									
GS-AP-MW-9V	420.86	366.98									
GS-AP-MW-15V	455.89	301.57									
GS-AP-MW-21V	509.84	334.36									
GS-AP-MW-25HA	462.27	287.36									
GS-AP-MW-30HA	582.40	277.52									
GS-AP-MW-31H	587.39	352.30									
GS-AP-MW-32H	550.03	292.48									
GS-AP-MW-33HO	526.79	286.69									
GS-AP-MW-34HO	523.82	277.34									
GS-AP-MW-35HO	553.35	295.39									
GS-AP-MW-36H	536.61	300.00									
GS-AP-MW-37H	459.28	--									
GS-AP-MW-38H	345.74	298.77									
GS-AP-MW-39H	451.13	164.61									
GS-AP-MW-41HS	284.65	262.34									
GS-AP-MW-41HD	284.54	282.25									
GS-AP-MW-42H	340.62	288.39									
GS-AP-MW-43H	514.62	365.14									
GS-AP-MW-40HO	357.91	278.02									
GS-AP-MW-44HO	506.21	363.18									
GS-AP-MW-7VR	313.89	264.51									
GS-AP-MW-6V	275.44	262.12									
GS-AP-MW-11R	455.60	382.16									
GS-AP-MW-27R	535.26	373.22									
GS-AP-MW-37R	460.05	316.94									

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. TOC for MW-12V has been resurveyed and pending results

Appendix D



Gorgas Ash Pond

2021 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 wells MW-7, MW-12V & MW-16D. A complete sample set for totals analysis was collected followed by a field filtered set for dissolved analysis.

Due to low yield, wells MW-18V and MW-32H were sampled using the Minimal Purge Method, as defined in the SAP.

The first 12 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

Dusty conditions due to high winds and vehicle traffic were present when pumping and sampling wells MW-21, MW-9V and MW-8.

Suspected iron bacteria was present during initial pumping of wells MW-6S, MW-41HS and MW-40H.

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_1305

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
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(205) 664-6197

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



March 24, 2021

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between February 02, 2021 and February 18, 2021. 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, 2021

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: 2021.03.29 16:02:36 -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: 2021.04.01 11:32:31 -0500



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
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Alabama Power's General Test Laboratory.

Alabama Power



Total Metals ICP

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	691621	WMWGORAP_1305
BB02242	691621	WMWGORAP_1305
BB02243	691621	WMWGORAP_1305
BB02245	691621	WMWGORAP_1305
BB02246	691621	WMWGORAP_1305
BB02247	691621	WMWGORAP_1305
BB02248	691621	WMWGORAP_1305
BB02249	691621	WMWGORAP_1305
BB02251	691621	WMWGORAP_1305
BB02252	691621	WMWGORAP_1305
BB02253	691622	WMWGORAP_1305
BB02254	691622	WMWGORAP_1305
BB02255	691622	WMWGORAP_1305
BB02256	691622	WMWGORAP_1305
BB02421	691622	WMWGORAP_1305
BB02422	691622	WMWGORAP_1305
BB02423	691622	WMWGORAP_1305
BB02424	691622	WMWGORAP_1305
BB02425	691622	WMWGORAP_1305
BB02426	691622	WMWGORAP_1305
BB02427	691623	WMWGORAP_1305
BB02428	691623	WMWGORAP_1305
BB02429	691623	WMWGORAP_1305
BB02882	692634	WMWGORAP_1305
BB02883	692634	WMWGORAP_1305
BB02884	692634	WMWGORAP_1305
BB02885	692634	WMWGORAP_1305
BB02886	692634	WMWGORAP_1305
BB02887	692634	WMWGORAP_1305
BB02888	692634	WMWGORAP_1305
BB02889	692634	WMWGORAP_1305

BB02890	692634	WMWGORAP_1305
BB02891	692634	WMWGORAP_1305
BB02892	692635	WMWGORAP_1305
BB02893	692635	WMWGORAP_1305
BB02894	692635	WMWGORAP_1305
BB03088	692635	WMWGORAP_1305
BB03089	692635	WMWGORAP_1305
BB03090	692635	WMWGORAP_1305
BB03091	692635	WMWGORAP_1305
BB03092	692635	WMWGORAP_1305
BB03094	692635	WMWGORAP_1305
BB03625	693671	WMWGORAP_1305
BB03626	693671	WMWGORAP_1305
BB03627	693671	WMWGORAP_1305
BB03628	693671	WMWGORAP_1305
BB03629	693671	WMWGORAP_1305
BB03630	693671	WMWGORAP_1305
BB03631	693671	WMWGORAP_1305

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- 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:
 - BB02426 and BB02429 Iron MS/MSD spike levels are less than 30% of the sample nominal 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>
BB02241	Sodium	101.5
BB02242	Sodium	101.5
BB02243	Sodium	101.5
BB02246	Sodium	101.5
BB02247	Sodium	101.5
BB02248	Sodium, Iron	20.3
BB02249	Calcium	10.15
BB02251	Calcium	10.15
BB02252	Calcium, Sodium	10.15
BB02253	Calcium, Sodium, Magnesium	10.15
BB02255	Calcium	10.15
BB02256	Calcium	10.15
BB02421	Calcium, Magnesium	10.15
BB02422	Sodium	101.5
BB02424	Sodium	101.5
BB02425	Calcium, Iron	10.15
BB02426	Calcium, Iron	10.15
BB02427	Calcium	10.15
BB02428	Sodium	101.5
BB02429	Calcium, Iron	50.75
BB02882	Calcium, Sodium	10.15

Case Narrative

BB02883	Calcium, Sodium	10.15
BB02884	Calcium, Sodium	10.15
BB02885	Sodium	101.5
BB02887	Calcium, Sodium	101.5
BB02888	Sodium	101.5
BB02889	Sodium	101.5
BB02890	Calcium	10.15
BB02891	Calcium	10.15
BB02892	Calcium	10.15
BB02893	Sodium	10.15
BB02894	Sodium	10.15
BB03088	Sodium	101.5
BB03089	Sodium, Iron	101.5
BB03090	Sodium	10.15
BB03091	Sodium	10.15
BB03625	Sodium	101.5
BB03626	Sodium	101.5
BB03627	Sodium	101.5
BB03628	Sodium	101.5
BB03629	Sodium, Iron	10.15
BB03630	Sodium	101.5

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

Dissolved Metals ICP

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	691583	WMWGORAP_1305
BB02242	691583	WMWGORAP_1305
BB02243	691583	WMWGORAP_1305
BB02244	691583	WMWGORAP_1305
BB02246	691583	WMWGORAP_1305
BB02247	691583	WMWGORAP_1305
BB02248	691583	WMWGORAP_1305
BB02249	691583	WMWGORAP_1305
BB02250	691583	WMWGORAP_1305
BB02251	691583	WMWGORAP_1305
BB02252	691584	WMWGORAP_1305
BB02253	691584	WMWGORAP_1305
BB02254	691584	WMWGORAP_1305
BB02255	691584	WMWGORAP_1305
BB02256	691584	WMWGORAP_1305
BB02421	691584	WMWGORAP_1305
BB02422	691584	WMWGORAP_1305
BB02424	691584	WMWGORAP_1305
BB02425	691584	WMWGORAP_1305
BB02426	691584	WMWGORAP_1305
BB02427	691585	WMWGORAP_1305
BB02428	691585	WMWGORAP_1305
BB02429	691585	WMWGORAP_1305
BB02882	692637	WMWGORAP_1305
BB02883	692637	WMWGORAP_1305
BB02884	692637	WMWGORAP_1305
BB02885	692637	WMWGORAP_1305
BB02887	692637	WMWGORAP_1305
BB02888	692637	WMWGORAP_1305
BB02889	692637	WMWGORAP_1305
BB02890	692637	WMWGORAP_1305

BB02891	692637	WMWGORAP_1305
BB02892	692637	WMWGORAP_1305
BB02893	692638	WMWGORAP_1305
BB02894	692638	WMWGORAP_1305
BB03088	692638	WMWGORAP_1305
BB03089	692638	WMWGORAP_1305
BB03090	692638	WMWGORAP_1305
BB03091	692638	WMWGORAP_1305
BB03092	692638	WMWGORAP_1305
BB03093	692638	WMWGORAP_1305
BB03625	692641	WMWGORAP_1305
BB03626	692641	WMWGORAP_1305
BB03627	692641	WMWGORAP_1305
BB03628	692641	WMWGORAP_1305
BB03629	692641	WMWGORAP_1305
BB03630	692641	WMWGORAP_1305

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- 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:
 - BB02429 Iron MS/MSD spike level is less than 30% of the sample nominal concentration.
 - BB03093 Sodium MS/MSD spike level is less than 30% of the sample nominal 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>
BB02244	Sodium	101.5
BB02248	Iron	10.15
BB02250	Calcium	10.15
BB02425	Iron	10.15
BB02426	Iron	10.15
BB02429	Iron	101.5
BB03089	Iron	10.15
BB03629	Iron	10.15

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

Total Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	692040	WMWGORAP_1305
BB02242	692040	WMWGORAP_1305
BB02243	692040	WMWGORAP_1305
BB02245	692040	WMWGORAP_1305
BB02246	692040	WMWGORAP_1305
BB02247	692040	WMWGORAP_1305
BB02248	692040	WMWGORAP_1305
BB02249	692040	WMWGORAP_1305
BB02251	692040	WMWGORAP_1305
BB02252	692040	WMWGORAP_1305
BB02253	692041	WMWGORAP_1305
BB02254	692041	WMWGORAP_1305
BB02255	692041	WMWGORAP_1305
BB02256	692041	WMWGORAP_1305
BB02421	692041	WMWGORAP_1305
BB02422	692041	WMWGORAP_1305
BB02423	692041	WMWGORAP_1305
BB02424	692041	WMWGORAP_1305
BB02425	692041	WMWGORAP_1305
BB02426	692041	WMWGORAP_1305
BB02427	692042	WMWGORAP_1305
BB02428	692042	WMWGORAP_1305
BB02429	692042	WMWGORAP_1305
BB02882	692347	WMWGORAP_1305
BB02883	692347	WMWGORAP_1305
BB02884	692347	WMWGORAP_1305
BB02885	692347	WMWGORAP_1305
BB02886	692347	WMWGORAP_1305
BB02887	692347	WMWGORAP_1305
BB02888	692347	WMWGORAP_1305
BB02889	692347	WMWGORAP_1305

BB02890	692347	WMWGORAP_1305
BB02891	692347	WMWGORAP_1305
BB02892	692348	WMWGORAP_1305
BB02893	692348	WMWGORAP_1305
BB02894	692348	WMWGORAP_1305
BB03088	692348	WMWGORAP_1305
BB03089	692348	WMWGORAP_1305
BB03090	692348	WMWGORAP_1305
BB03091	692348	WMWGORAP_1305
BB03092	692348	WMWGORAP_1305
BB03094	692348	WMWGORAP_1305
BB03625	692728	WMWGORAP_1305
BB03626	692728	WMWGORAP_1305
BB03627	692728	WMWGORAP_1305
BB03628	692728	WMWGORAP_1305
BB03629	692728	WMWGORAP_1305
BB03630	692728	WMWGORAP_1305
BB03631	692728	WMWGORAP_1305

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BB02252 Selenium MS/MSD recoveries failed. Post digestion spike and serial dilution were performed. Matrix issue is suspected.
 - BB02426 Manganese MS/MSD spike level was less than 30% of the sample nominal concentration.
 - 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>
BB02249	Barium	10.15
BB02425	Manganese	10.15
BB02426	Manganese	10.15
BB02429	Manganese	10.15
BB02887	Potassium	5.075

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

Dissolved Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	691956	WMWGORAP_1305
BB02242	691956	WMWGORAP_1305
BB02243	691956	WMWGORAP_1305
BB02244	691960	WMWGORAP_1305
BB02246	691956	WMWGORAP_1305
BB02247	691956	WMWGORAP_1305
BB02248	691956	WMWGORAP_1305
BB02249	691956	WMWGORAP_1305
BB02250	691960	WMWGORAP_1305
BB02251	691956	WMWGORAP_1305
BB02252	691956	WMWGORAP_1305
BB02253	691956	WMWGORAP_1305
BB02254	691957	WMWGORAP_1305
BB02255	691957	WMWGORAP_1305
BB02256	691957	WMWGORAP_1305
BB02421	691957	WMWGORAP_1305
BB02422	691957	WMWGORAP_1305
BB02424	691957	WMWGORAP_1305
BB02425	691957	WMWGORAP_1305
BB02426	691957	WMWGORAP_1305
BB02427	691957	WMWGORAP_1305
BB02428	691957	WMWGORAP_1305
BB02429	691960	WMWGORAP_1305
BB02882	692305	WMWGORAP_1305
BB02883	692305	WMWGORAP_1305
BB02884	692305	WMWGORAP_1305
BB02885	692305	WMWGORAP_1305
BB02887	692305	WMWGORAP_1305
BB02888	692305	WMWGORAP_1305
BB02889	692305	WMWGORAP_1305
BB02890	692305	WMWGORAP_1305

BB02891	692305	WMWGORAP_1305
BB02892	692305	WMWGORAP_1305
BB02893	692306	WMWGORAP_1305
BB02894	692306	WMWGORAP_1305
BB03088	692306	WMWGORAP_1305
BB03089	692306	WMWGORAP_1305
BB03090	692306	WMWGORAP_1305
BB03091	692306	WMWGORAP_1305
BB03092	692306	WMWGORAP_1305
BB03093	692306	WMWGORAP_1305
BB03625	692713	WMWGORAP_1305
BB03626	692713	WMWGORAP_1305
BB03627	692713	WMWGORAP_1305
BB03628	692713	WMWGORAP_1305
BB03629	692713	WMWGORAP_1305
BB03630	692713	WMWGORAP_1305

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met, except for the following:
 - BB02250 Barium MS/MSD spike level is less than 30% of the sample nominal concentration.
 - 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>
BB02250	Barium	10.15
BB02425	Manganese	10.15
BB02426	Manganese	10.15
BB02429	Manganese	10.15

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

Total Mercury

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	691390	WMWGORAP_1305
BB02242	691390	WMWGORAP_1305
BB02243	691390	WMWGORAP_1305
BB02245	691390	WMWGORAP_1305
BB02246	691390	WMWGORAP_1305
BB02247	691390	WMWGORAP_1305
BB02248	691390	WMWGORAP_1305
BB02249	691390	WMWGORAP_1305
BB02251	691390	WMWGORAP_1305
BB02252	691390	WMWGORAP_1305
BB02253	691391	WMWGORAP_1305
BB02254	691391	WMWGORAP_1305
BB02255	691391	WMWGORAP_1305
BB02256	691391	WMWGORAP_1305
BB02421	691727	WMWGORAP_1305
BB02422	691727	WMWGORAP_1305
BB02423	691727	WMWGORAP_1305
BB02424	691727	WMWGORAP_1305
BB02425	691727	WMWGORAP_1305
BB02426	691727	WMWGORAP_1305
BB02427	691727	WMWGORAP_1305
BB02428	691727	WMWGORAP_1305
BB02429	691727	WMWGORAP_1305
BB02882	692453	WMWGORAP_1305
BB02883	692453	WMWGORAP_1305
BB02884	692453	WMWGORAP_1305
BB02885	692453	WMWGORAP_1305
BB02886	692453	WMWGORAP_1305
BB02887	692453	WMWGORAP_1305
BB02888	692453	WMWGORAP_1305
BB02889	692453	WMWGORAP_1305

BB02890	692453	WMWGORAP_1305
BB02891	692453	WMWGORAP_1305
BB02892	692454	WMWGORAP_1305
BB02893	692454	WMWGORAP_1305
BB02894	692454	WMWGORAP_1305
BB03088	692454	WMWGORAP_1305
BB03089	692454	WMWGORAP_1305
BB03090	692454	WMWGORAP_1305
BB03091	692454	WMWGORAP_1305
BB03092	692454	WMWGORAP_1305
BB03094	692454	WMWGORAP_1305
BB03625	692585	WMWGORAP_1305
BB03626	692585	WMWGORAP_1305
BB03627	692585	WMWGORAP_1305
BB03628	692585	WMWGORAP_1305
BB03629	692585	WMWGORAP_1305
BB03630	692585	WMWGORAP_1305
BB03631	692585	WMWGORAP_1305

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Case Narrative

Dissolved Mercury

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02244	691392	WMWGORAP_1305
BB02250	691392	WMWGORAP_1305
BB03093	692455	WMWGORAP_1305

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

TDS

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	691372	WMWGORAP_1305
BB02242	691372	WMWGORAP_1305
BB02243	691372	WMWGORAP_1305
BB02244	691372	WMWGORAP_1305
BB02245	691372	WMWGORAP_1305
BB02246	691372	WMWGORAP_1305
BB02247	691372	WMWGORAP_1305
BB02248	691372	WMWGORAP_1305
BB02249	691372	WMWGORAP_1305
BB02250	691373	WMWGORAP_1305
BB02251	691373	WMWGORAP_1305
BB02252	691373	WMWGORAP_1305
BB02253	691373	WMWGORAP_1305
BB02254	691373	WMWGORAP_1305
BB02255	691373	WMWGORAP_1305
BB02256	691373	WMWGORAP_1305
BB02421	691517	WMWGORAP_1305
BB02422	691517	WMWGORAP_1305
BB02423	691517	WMWGORAP_1305
BB02424	691517	WMWGORAP_1305
BB02425	691517	WMWGORAP_1305
BB02426	691517	WMWGORAP_1305
BB02427	691517	WMWGORAP_1305
BB02428	691517	WMWGORAP_1305
BB02429	691517	WMWGORAP_1305
BB02882	691856	WMWGORAP_1305
BB02883	691856	WMWGORAP_1305
BB02884	691856	WMWGORAP_1305
BB02885	691856	WMWGORAP_1305
BB02886	691856	WMWGORAP_1305
BB02887	691856	WMWGORAP_1305

BB02888	692167	WMWGORAP_1305
BB02889	692167	WMWGORAP_1305
BB02890	691856	WMWGORAP_1305
BB02891	691856	WMWGORAP_1305
BB02892	691856	WMWGORAP_1305
BB02893	691856	WMWGORAP_1305
BB02894	692167	WMWGORAP_1305
BB03088	692167	WMWGORAP_1305
BB03089	692167	WMWGORAP_1305
BB03090	692167	WMWGORAP_1305
BB03091	692167	WMWGORAP_1305
BB03092	692167	WMWGORAP_1305
BB03093	692167	WMWGORAP_1305
BB03094	692167	WMWGORAP_1305
BB03625	692680	WMWGORAP_1305
BB03626	692680	WMWGORAP_1305
BB03627	692680	WMWGORAP_1305
BB03628	692680	WMWGORAP_1305
BB03629	692680	WMWGORAP_1305
BB03630	692680	WMWGORAP_1305
BB03631	692680	WMWGORAP_1305

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BB02245
 - BB02423
 - BB02886
 - BB03094
 - BB03631

Anions

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	691450, 691508, & 691946	WMWGORAP_1305
BB02242	691450, 691508, & 691946	WMWGORAP_1305
BB02243	691450, 691508, & 691946	WMWGORAP_1305
BB02244	691450, 691508, & 691946	WMWGORAP_1305
BB02245	691450, 691508, & 691946	WMWGORAP_1305
BB02246	691450, 691508, & 691946	WMWGORAP_1305
BB02247	691450, 691508, & 691946	WMWGORAP_1305
BB02248	691450, 691508, & 691946	WMWGORAP_1305
BB02249	691450, 691508, & 691946	WMWGORAP_1305
BB02250	691450, 691508, & 691946	WMWGORAP_1305
BB02251	691451, 691509, & 691947	WMWGORAP_1305
BB02252	691451, 691509, & 691947	WMWGORAP_1305
BB02253	691451, 691509, & 691947	WMWGORAP_1305
BB02254	691451, 691509, & 691947	WMWGORAP_1305
BB02255	691451, 691509, & 691947	WMWGORAP_1305
BB02256	691451, 691509, & 691947	WMWGORAP_1305
BB02421	691452, 691510, & 691948	WMWGORAP_1305
BB02422	691452, 691510, & 691948	WMWGORAP_1305
BB02423	691452, 691510, & 691948	WMWGORAP_1305
BB02424	691452, 691510, & 691948	WMWGORAP_1305
BB02425	691452, 691510, & 691948	WMWGORAP_1305
BB02426	691452, 691510, & 691948	WMWGORAP_1305
BB02427	691452, 691510, & 691948	WMWGORAP_1305
BB02428	691452, 691510, & 691948	WMWGORAP_1305
BB02429	691452, 691510, & 691948	WMWGORAP_1305
BB02882	692102, 692100, & 691951	WMWGORAP_1305
BB02883	692102, 692100, & 691951	WMWGORAP_1305
BB02884	692102, 692100, & 691951	WMWGORAP_1305
BB02885	692102, 692100, & 691951	WMWGORAP_1305
BB02886	692102, 692100, & 691951	WMWGORAP_1305
BB02887	692102, 692100, & 691951	WMWGORAP_1305

BB02888	692102, 692100, & 691951	WMWGORAP_1305
BB02889	692102, 692100, & 691951	WMWGORAP_1305
BB02890	692102, 692100, & 691951	WMWGORAP_1305
BB02891	692102, 692100, & 691951	WMWGORAP_1305
BB02892	692103, 692101, & 691952	WMWGORAP_1305
BB02893	692103, 692101, & 691952	WMWGORAP_1305
BB02894	692103, 692101, & 691952	WMWGORAP_1305
BB03088	692103, 692101, & 692165	WMWGORAP_1305
BB03089	692103, 692101, & 692165	WMWGORAP_1305
BB03090	692103, 692101, & 692165	WMWGORAP_1305
BB03091	692103, 692101, & 692165	WMWGORAP_1305
BB03092	692103, 692101, & 692165	WMWGORAP_1305
BB03093	692103, 692101, & 692165	WMWGORAP_1305
BB03094	692103, 692101, & 692165	WMWGORAP_1305
BB03625	692536, 692537, & 692855	WMWGORAP_1305
BB03626	692536, 692537, & 692855	WMWGORAP_1305
BB03627	692536, 692537, & 692855	WMWGORAP_1305
BB03628	692536, 692537, & 692855	WMWGORAP_1305
BB03629	692536, 692537, & 692855	WMWGORAP_1305
BB03630	692536, 692537, & 692855	WMWGORAP_1305
BB03631	692536, 692537, & 692855	WMWGORAP_1305

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 half 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 half 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>
BB02241	Chloride	4
BB02243	Sulfate	8
BB02244	Sulfate	8
BB02247	Sulfate	3
BB02248	Sulfate	4
BB02253	Chloride, Sulfate	4, 40
BB02421	Sulfate	20
BB02422	Sulfate	8
BB02425	Sulfate	8
BB02426	Sulfate	8
BB02427	Sulfate	3
BB02428	Chloride	10
BB02429	Sulfate	20
BB02884	Sulfate	4
BB02885	Chloride, Sulfate	3, 16
BB02887	Chloride, Sulfate	80, 32
BB02889	Chloride, Sulfate	40, 20
BB02890	Sulfate	5
BB02891	Sulfate	8
BB02892	Sulfate	8
BB02893	Chloride	2
BB03088	Chloride, Sulfate	4, 10
BB03089	Sulfate	25
BB03090	Chloride, Sulfate	4, 2
BB03625	Chloride	2
BB03627	Sulfate	8
BB03629	Sulfate	10
BB03630	Chloride, Sulfate	8, 20

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

Alkalinity

Gorgas Ash Pond

WMWGORAP_1305

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>
BB02241	691864, 691865	WMWGORAP_1305
BB02242	691864, 691865	WMWGORAP_1305
BB02243	691864, 691865	WMWGORAP_1305
BB02244	691864, 691865	WMWGORAP_1305
BB02246	691864, 691865	WMWGORAP_1305
BB02247	691864, 691865	WMWGORAP_1305
BB02248	691864, 691865	WMWGORAP_1305
BB02249	691864, 691865	WMWGORAP_1305
BB02250	691864, 691865	WMWGORAP_1305
BB02251	691864, 691865	WMWGORAP_1305
BB02252	691864, 691865	WMWGORAP_1305
BB02253	691864, 691865	WMWGORAP_1305
BB02254	691864, 691865	WMWGORAP_1305
BB02255	691864, 691865	WMWGORAP_1305
BB02256	691864, 691865	WMWGORAP_1305
BB02421	691864, 691865	WMWGORAP_1305
BB02422	691864, 691865	WMWGORAP_1305
BB02424	691864, 691865	WMWGORAP_1305
BB02425	691864, 691865	WMWGORAP_1305
BB02426	691864, 691865	WMWGORAP_1305
BB02427	692163, 692164	WMWGORAP_1305
BB02428	692163, 692164	WMWGORAP_1305
BB02429	692163, 692164	WMWGORAP_1305
BB02882	692163, 692164	WMWGORAP_1305
BB02883	692163, 692164	WMWGORAP_1305
BB02884	692163, 692164	WMWGORAP_1305
BB02885	692163, 692164	WMWGORAP_1305
BB02887	692163, 692164	WMWGORAP_1305
BB02888	692163, 692164	WMWGORAP_1305
BB02889	692163, 692164	WMWGORAP_1305
BB02890	692163, 692164	WMWGORAP_1305

BB02891	692163, 692164	WMWGORAP_1305
BB02892	692163, 692164	WMWGORAP_1305
BB02893	692163, 692164	WMWGORAP_1305
BB02894	692163, 692164	WMWGORAP_1305
BB03088	692163, 692164	WMWGORAP_1305
BB03089	692163, 692164	WMWGORAP_1305
BB03090	692163, 692164	WMWGORAP_1305
BB03091	692163, 692164	WMWGORAP_1305
BB03092	692163, 692164	WMWGORAP_1305
BB03093	692903, 692904	WMWGORAP_1305
BB03625	692903, 692904	WMWGORAP_1305
BB03626	692903, 692904	WMWGORAP_1305
BB03627	692903, 692904	WMWGORAP_1305
BB03628	692903, 692904	WMWGORAP_1305
BB03629	692903, 692904	WMWGORAP_1305
BB03630	692903, 692904	WMWGORAP_1305

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

General Quality Control Procedures:

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

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-31H

Location Code: WMWGORAP
Collected: 2/1/21 12:20
Customer ID:
Submission Date: 2/2/21 19:16

Laboratory ID Number: BB02241

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA			Preparation Method: EPA 1638			
* Boron, Total	2/9/21 11:00	2/10/21 09:59		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 09:59		1.015	4.92	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 09:59		1.015	0.0768	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 09:59		1.015	0.0417	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 09:59		1.015	1.53	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 13:26		101.5	111	mg/L	2.030	40.6	
Analytical Method: EPA 200.7			Analyst: RDA						
* Iron, Dissolved	2/8/21 12:00	2/9/21 10:38		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8			Analyst: ABB			Preparation Method: EPA 1638			
* Antimony, Total	2/9/21 08:13	2/10/21 14:29		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 14:29		1.015	0.000325	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 14:29		1.015	0.0974	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:29		1.015	0.000345	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 14:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 14:29		1.015	0.000102	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:29		1.015	0.00447	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:29		1.015	1.09	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 14:29		1.015	0.00841	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:29		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: ABB						
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:22		1.015	0.00737	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	258	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	339	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-31H

Location Code: WMWGORAP
Collected: 2/1/21 12:20
Customer ID:
Submittal Date: 2/2/21 19:16

Laboratory ID Number: BB02241

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	245	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	12.4	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:40	2/4/21 12:40		4	31.2	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:02	2/5/21 10:02		1	0.176	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:41	2/10/21 10:41		1	32.2	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/1/21 12:16	2/1/21 12:16			597.27	uS/cm			FA
pH	2/1/21 12:16	2/1/21 12:16			8.66	SU			FA
Temperature	2/1/21 12:16	2/1/21 12:16			14.37	C			FA
Turbidity	2/1/21 12:16	2/1/21 12:16			2.9	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 12:20

Customer ID:

Delivery Date: 2/2/21 19:16

Description: Gorgas Ash Pond - MW-31H

Laboratory ID Number: BB02241

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 12:20

Customer ID:

Delivery Date: 2/2/21 19:16

Description: Gorgas Ash Pond - MW-31H

Laboratory ID Number: BB02241

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-2

Location Code: WMWGORAP
Collected: 2/1/21 14:16
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02242

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:02		1.015	0.130	mg/L	0.030000	0.1015	
* Calcium, Total	2/9/21 11:00	2/10/21 10:02		1.015	0.517	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 10:02		1.015	0.0517	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:02		1.015	0.0445	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:02		1.015	0.148	mg/L	0.021315	0.406	J
* Sodium, Total	2/9/21 11:00	2/10/21 13:29		101.5	124	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 10:42		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/9/21 08:13	2/10/21 14:33		1.015	0.0578	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:33		1.015	0.000505	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:33		1.015	0.00427	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:33		1.015	0.426	mg/L	0.169505	0.5075	J
* Manganese, Total	2/9/21 08:13	2/10/21 14:33		1.015	0.00100	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:26		1.015	0.000740	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	270	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	333	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-2

Location Code: WMWGORAP
Collected: 2/1/21 14:16
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02242

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	215	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	53.3	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:31	2/4/21 12:31		1	8.42	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:03	2/5/21 10:03		1	0.865	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:42	2/10/21 10:42		1	21.3	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/1/21 14:13	2/1/21 14:13			552.82	uS/cm			FA
pH	2/1/21 14:13	2/1/21 14:13			9.31	SU			FA
Temperature	2/1/21 14:13	2/1/21 14:13			14.13	C			FA
Turbidity	2/1/21 14:13	2/1/21 14:13			1.57	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 14:16

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: BB02242

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 14:16

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: BB02242

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-7

Location Code: WMWGORAP
Collected: 2/2/21 13:33
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02243

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:05		1.015	1.60	mg/L	0.030000	0.1015	
* Calcium, Total	2/9/21 11:00	2/10/21 10:05		1.015	12.2	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 10:05		1.015	3.56	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:05		1.015	0.183	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:05		1.015	4.46	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 13:32		101.5	89.3	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 10:45		1.015	0.218	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:37		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 14:37		1.015	0.275	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 14:37		1.015	0.115	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:37		1.015	0.00435	mg/L	0.000203	0.001015	
* Cobalt, Total	2/9/21 08:13	2/10/21 14:37		1.015	0.00248	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 14:37		1.015	0.00243	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:37		1.015	0.202	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:37		1.015	1.67	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 14:37		1.015	0.103	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:37		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:29		1.015	0.0375	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	109	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	349	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-7

Location Code: WMWGORAP

Collected: 2/2/21 13:33

Customer ID:

Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02243

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	108	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.66	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:32	2/4/21 12:32		1	6.76	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:04	2/5/21 10:04		1	0.124	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:52	2/10/21 10:52		8	130	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/2/21 13:29	2/2/21 13:29			489.98	uS/cm			FA
pH	2/2/21 13:29	2/2/21 13:29			7.77	SU			FA
Temperature	2/2/21 13:29	2/2/21 13:29			15.66	C			FA
Turbidity	2/2/21 13:29	2/2/21 13:29			62.7	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 13:33

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: BB02243

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 13:33

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: BB02243

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-7 DIS

Location Code: WMWGORAP
Collected: 2/2/21 13:33
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02244

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA							
* Boron, Dissolved	2/8/21 12:00	2/9/21 10:49		1.015	1.59	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/8/21 12:00	2/9/21 10:49		1.015	11.7	mg/L	0.070035	0.406	
* Iron, Dissolved	2/8/21 12:00	2/9/21 10:49		1.015	0.201	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/8/21 12:00	2/9/21 10:49		1.015	0.184	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/8/21 12:00	2/9/21 10:49		1.015	3.99	mg/L	0.021315	0.406	
* Sodium, Dissolved	2/8/21 12:00	2/9/21 13:52		101.5	89.4	mg/L	2.030	40.6	
Analytical Method: EPA 200.8		Analyst: ABB							
* Antimony, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	0.244	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	0.0551	mg/L	0.000101	0.000203	
* Beryllium, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	0.203	mg/L	0.000068	0.000203	
* Manganese, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	0.0371	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	1.36	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Dissolved	2/8/21 11:56	2/9/21 13:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Dissolved by CVAA	2/4/21 11:20	2/5/21 11:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	113	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	341	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	112	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.70	mg/L			

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-7 DIS

Location Code: WMWGORAP

Collected: 2/2/21 13:33

Customer ID:

Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02244

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:33	2/4/21 12:33		1	6.61	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:05	2/5/21 10:05		1	0.123	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:53	2/10/21 10:53		8	131	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/2/21 13:29	2/2/21 13:29			489.98	uS/cm			FA
pH	2/2/21 13:29	2/2/21 13:29			7.77	SU			FA
Temperature	2/2/21 13:29	2/2/21 13:29			15.66	C			FA
Turbidity	2/2/21 13:29	2/2/21 13:29			62.7	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 13:33

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-7 DIS

Laboratory ID Number: BB02244

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02250	Chromium, Dissolved	mg/L	-0.0000235	0.000440	0.10	0.102	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB02250	Thallium, Dissolved	mg/L	0.0000023	0.000147	0.10	0.0998	0.0996	0.0984	0.0850 to 0.115	99.8	70.0 to 130	0.201	20.0
BB02250	Arsenic, Dissolved	mg/L	0.000028	0.000147	0.10	0.102	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BB02250	Barium, Dissolved	mg/L	0.000001	0.000200	0.10	1.62	1.66	0.0956	0.0850 to 0.115	60.0	70.0 to 130	2.44	20.0
BB02250	Magnesium, Dissolved	mg/L	-0.000262	0.0462	5.00	17.7	17.6	4.97	4.25 to 5.75	100	70.0 to 130	0.567	20.0
BB02250	Mercury, Dissolved by	mg/L	0.0000157	0.000500	0.004	0.00403	0.00408	0.00409	0.00340 to 0.00460	101	70.0 to 130	1.23	20.0
BB02250	Lithium, Dissolved	mg/L	0.0000761	0.0154	0.20	0.255	0.252	0.201	0.170 to 0.230	110	70.0 to 130	1.18	20.0
BB02250	Selenium, Dissolved	mg/L	0.00006	0.00100	0.10	0.104	0.102	0.106	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BB02250	Boron, Dissolved	mg/L	0.000628	0.0650	1.00	1.04	1.03	0.986	0.850 to 1.15	104	70.0 to 130	0.966	20.0
BB02250	Potassium, Dissolved	mg/L	0.0104	0.367	10.0	13.2	13.3	10.5	8.50 to 11.5	103	70.0 to 130	0.755	20.0
BB02250	Antimony, Dissolved	mg/L	0.000139	0.00100	0.10	0.0975	0.0944	0.0946	0.0850 to 0.115	97.5	70.0 to 130	3.23	20.0
BB02250	Beryllium, Dissolved	mg/L	-0.0000372	0.000880	0.10	0.103	0.111	0.106	0.0850 to 0.115	103	70.0 to 130	7.48	20.0
BB02250	Cadmium, Dissolved	mg/L	0.00000	0.000147	0.10	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02250	Cobalt, Dissolved	mg/L	0.0000003	0.000147	0.10	0.101	0.101	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02250	Manganese, Dissolved	mg/L	0.0000024	0.000147	0.100	0.169	0.169	0.102	0.0850 to 0.115	98.4	70.0 to 130	0.00	20.0
BB02250	Lead, Dissolved	mg/L	0.0000048	0.000147	0.10	0.0980	0.0980	0.0980	0.0850 to 0.115	98.0	70.0 to 130	0.00	20.0
BB02250	Calcium, Dissolved	mg/L	0.000196	0.152	5.00	53.0	53.9	5.07	4.25 to 5.75	104	70.0 to 130	1.68	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02250	Molybdenum, Dissolved	mg/L	0.0000101	0.000147	0.10	0.101	0.0999	0.101	0.0850 to 0.115	99.5	70.0 to 130	1.10	20.0
BB02250	Sodium, Dissolved	mg/L	0.000106	0.0440	5.00	23.7	23.7	4.94	4.25 to 5.75	110	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 13:33

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-7 DIS

Laboratory ID Number: BB02244

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond Field Blank-2

Location Code: WMWGORAPFB
Collected: 2/2/21 15:00
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02245

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:09		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 10:09		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/9/21 11:00	2/10/21 10:09		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/9/21 11:00	2/10/21 10:09		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/9/21 11:00	2/10/21 10:09		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/9/21 11:00	2/10/21 10:09		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:40		1.015	0.000216	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	2/4/21 12:34	2/4/21 12:34		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:07	2/5/21 10:07		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:46	2/10/21 10:46		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/2/21 15:00

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond Field Blank-2

Laboratory ID Number: BB02245

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/2/21 15:00

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond Field Blank-2

Laboratory ID Number: BB02245

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-17V

Location Code: WMWGORAP
Collected: 2/2/21 13:05
Customer ID:
Submission Date: 2/2/21 19:17

Laboratory ID Number: BB02246

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:12		1.015	0.0396	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 10:12		1.015	31.8	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 10:12		1.015	1.27	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:12		1.015	0.0585	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:12		1.015	12.6	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 13:36		101.5	82.4	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 10:52		1.015	1.27	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:44		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 14:44		1.015	0.000243	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 14:44		1.015	0.308	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:44		1.015	0.000313	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:44		1.015	0.00252	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:44		1.015	2.12	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 14:44		1.015	0.0321	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:44		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:33		1.015	0.0339	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	329	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	356	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-17V

Location Code: WMWGORAP
Collected: 2/2/21 13:05
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02246

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	327	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	1.85	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:36	2/4/21 12:36		1	3.49	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:08	2/5/21 10:08		1	0.244	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:47	2/10/21 10:47		1	8.81	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/2/21 12:59	2/2/21 12:59			558.18	uS/cm			FA
pH	2/2/21 12:59	2/2/21 12:59			7.58	SU			FA
Temperature	2/2/21 12:59	2/2/21 12:59			15.04	C			FA
Turbidity	2/2/21 12:59	2/2/21 12:59			0.84	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 13:05

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-17V

Laboratory ID Number: BB02246

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 13:05

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-17V

Laboratory ID Number: BB02246

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-17

Location Code: WMWGORAP
Collected: 2/2/21 14:35
Customer ID:
Submission Date: 2/2/21 19:17

Laboratory ID Number: BB02247

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:16		1.015	0.0946	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 10:16		1.015	3.30	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 10:16		1.015	0.230	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:16		1.015	0.0634	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:16		1.015	1.05	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 13:39		101.5	198	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 10:55		1.015	0.0234	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:47		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.00478	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.107	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.00255	mg/L	0.000203	0.001015	
* Cobalt, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.000102	mg/L	0.000068	0.000203	J
* Lead, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.000175	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.00538	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.985	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 14:47		1.015	0.00952	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:47		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:36		1.015	0.00738	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	391	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	548	mg/L		50	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-17

Location Code: WMWGORAP
Collected: 2/2/21 14:35
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02247

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	377	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	13.5	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:37	2/4/21 12:37		1	10.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:09	2/5/21 10:09		1	0.276	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:54	2/10/21 10:54		3	55.1	mg/L	1.50	3	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/2/21 14:32	2/2/21 14:32			890.43	uS/cm			FA
pH	2/2/21 14:32	2/2/21 14:32			8.43	SU			FA
Temperature	2/2/21 14:32	2/2/21 14:32			13.35	C			FA
Turbidity	2/2/21 14:32	2/2/21 14:32			4.42	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 14:35

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: BB02247

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 14:35

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: BB02247

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - PZ-22

Location Code: WMWGORAP
Collected: 2/2/21 16:32
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02248

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:19		1.015	0.0486	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 10:19		1.015	16.5	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 13:43		20.3	4.91	mg/L	0.1624	0.812	
* Lithium, Total	2/9/21 11:00	2/10/21 10:19		1.015	0.0743	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:19		1.015	7.32	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 13:43		20.3	127	mg/L	0.406	8.12	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 13:55		10.15	5.18	mg/L	0.08120	0.406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 14:51		1.015	0.00338	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 14:51		1.015	0.0891	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:51		1.015	0.00367	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:51		1.015	3.09	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 14:51		1.015	0.0815	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:40		1.015	0.0862	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	296	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	446	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - PZ-22

Location Code: WMWGORAP
Collected: 2/2/21 16:32
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02248

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	295	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.92	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:38	2/4/21 12:38		1	2.99	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:10	2/5/21 10:10		1	0.389	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:59	2/10/21 10:59		4	84.1	mg/L	2.00	4	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/2/21 16:27	2/2/21 16:27			686.55	uS/cm			FA
pH	2/2/21 16:27	2/2/21 16:27			7.50	SU			FA
Temperature	2/2/21 16:27	2/2/21 16:27			16.10	C			FA
Turbidity	2/2/21 16:27	2/2/21 16:27			0.14	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 16:32

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - PZ-22

Laboratory ID Number: BB02248

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 16:32

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - PZ-22

Laboratory ID Number: BB02248

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-12V

Location Code: WMWGORAP
Collected: 2/1/21 12:55
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02249

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:22		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 13:46		10.15	48.9	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 10:22		1.015	3.31	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:22		1.015	0.0384	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:22		1.015	13.0	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 10:22		1.015	18.0	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:02		1.015	1.22	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:54		1.015	0.000861	mg/L	0.000507	0.001015	J
* Arsenic, Total	2/9/21 08:13	2/10/21 14:54		1.015	0.00154	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/12/21 11:14		10.15	1.60	mg/L	0.001015	0.00203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:54		1.015	0.00311	mg/L	0.000203	0.001015	
* Cobalt, Total	2/9/21 08:13	2/10/21 14:54		1.015	0.00129	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 14:54		1.015	0.00130	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:54		1.015	0.00164	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:54		1.015	3.27	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 14:54		1.015	0.112	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:54		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:44		1.015	0.0707	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:38		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	246	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	240	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-12V

Location Code: WMWGORAP

Collected: 2/1/21 12:55

Customer ID:

Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02249

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	245	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.76	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:39	2/4/21 12:39		1	3.86	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:11	2/5/21 10:11		1	0.169	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:50	2/10/21 10:50		1	Not Detected	mg/L	0.50	1	U
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/1/21 12:52	2/1/21 12:52			381.65	uS/cm			FA
pH	2/1/21 12:52	2/1/21 12:52			7.30	SU			FA
Temperature	2/1/21 12:52	2/1/21 12:52			15.01	C			FA
Turbidity	2/1/21 12:52	2/1/21 12:52			54.5	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 12:55

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-12V

Laboratory ID Number: BB02249

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 12:55

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-12V

Laboratory ID Number: BB02249

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0
BB02249	Solids, Dissolved	mg/L	-1.00	25.0			227	50.0	40.0 to 60.0			2.78	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-12V DIS

Location Code: WMWGORAP
Collected: 2/1/21 12:55
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02250

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA							
* Boron, Dissolved	2/8/21 12:00	2/9/21 11:06		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	2/8/21 12:00	2/9/21 13:58		10.15	47.8	mg/L	0.70035	4.06	
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:06		1.015	1.25	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/8/21 12:00	2/9/21 11:06		1.015	0.0354	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/8/21 12:00	2/9/21 11:06		1.015	12.7	mg/L	0.021315	0.406	
* Sodium, Dissolved	2/8/21 12:00	2/9/21 11:06		1.015	18.2	mg/L	0.02030	0.406	
Analytical Method: EPA 200.8		Analyst: ABB							
* Antimony, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	0.00108	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/8/21 11:56	2/12/21 09:30		10.15	1.56	mg/L	0.001015	0.00203	RA
* Beryllium, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	0.00149	mg/L	0.000068	0.000203	
* Manganese, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	0.0706	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	2.88	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Dissolved	2/8/21 11:56	2/9/21 13:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Dissolved by CVAA	2/4/21 11:20	2/5/21 11:05		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	240	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	230	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	239	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.74	mg/L			

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-12V DIS

Location Code: WMWGORAP

Collected: 2/1/21 12:55

Customer ID:

Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02250

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:42	2/4/21 12:42		1	3.98	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:13	2/5/21 10:13		1	0.169	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 10:55	2/10/21 10:55		1	Not Detected	mg/L	0.50	1	U
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/1/21 12:52	2/1/21 12:52			381.65	uS/cm			FA
pH	2/1/21 12:52	2/1/21 12:52			7.30	SU			FA
Temperature	2/1/21 12:52	2/1/21 12:52			15.01	C			FA
Turbidity	2/1/21 12:52	2/1/21 12:52			54.5	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 12:55

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-12V DIS

Laboratory ID Number: BB02250

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02250	Chromium, Dissolved	mg/L	-0.0000235	0.000440	0.10	0.102	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB02250	Thallium, Dissolved	mg/L	0.0000023	0.000147	0.10	0.0998	0.0996	0.0984	0.0850 to 0.115	99.8	70.0 to 130	0.201	20.0
BB02250	Mercury, Dissolved by	mg/L	0.0000157	0.000500	0.004	0.00403	0.00408	0.00409	0.00340 to 0.00460	101	70.0 to 130	1.23	20.0
BB02250	Lithium, Dissolved	mg/L	0.0000761	0.0154	0.20	0.255	0.252	0.201	0.170 to 0.230	110	70.0 to 130	1.18	20.0
BB02250	Selenium, Dissolved	mg/L	0.00006	0.00100	0.10	0.104	0.102	0.106	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BB02250	Boron, Dissolved	mg/L	0.000628	0.0650	1.00	1.04	1.03	0.986	0.850 to 1.15	104	70.0 to 130	0.966	20.0
BB02250	Potassium, Dissolved	mg/L	0.0104	0.367	10.0	13.2	13.3	10.5	8.50 to 11.5	103	70.0 to 130	0.755	20.0
BB02250	Antimony, Dissolved	mg/L	0.000139	0.00100	0.10	0.0975	0.0944	0.0946	0.0850 to 0.115	97.5	70.0 to 130	3.23	20.0
BB02250	Arsenic, Dissolved	mg/L	0.000028	0.000147	0.10	0.102	0.103	0.105	0.0850 to 0.115	101	70.0 to 130	0.976	20.0
BB02250	Barium, Dissolved	mg/L	0.000001	0.000200	0.10	1.62	1.66	0.0956	0.0850 to 0.115	60.0	70.0 to 130	2.44	20.0
BB02250	Magnesium, Dissolved	mg/L	-0.000262	0.0462	5.00	17.7	17.6	4.97	4.25 to 5.75	100	70.0 to 130	0.567	20.0
BB02250	Beryllium, Dissolved	mg/L	-0.0000372	0.000880	0.10	0.103	0.111	0.106	0.0850 to 0.115	103	70.0 to 130	7.48	20.0
BB02250	Cadmium, Dissolved	mg/L	0.00000	0.000147	0.10	0.101	0.101	0.102	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02250	Cobalt, Dissolved	mg/L	0.0000003	0.000147	0.10	0.101	0.101	0.104	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02250	Manganese, Dissolved	mg/L	0.0000024	0.000147	0.100	0.169	0.169	0.102	0.0850 to 0.115	98.4	70.0 to 130	0.00	20.0
BB02250	Lead, Dissolved	mg/L	0.0000048	0.000147	0.10	0.0980	0.0980	0.0980	0.0850 to 0.115	98.0	70.0 to 130	0.00	20.0
BB02250	Calcium, Dissolved	mg/L	0.000196	0.152	5.00	53.0	53.9	5.07	4.25 to 5.75	104	70.0 to 130	1.68	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02250	Molybdenum, Dissolved	mg/L	0.0000101	0.000147	0.10	0.101	0.0999	0.101	0.0850 to 0.115	99.5	70.0 to 130	1.10	20.0
BB02250	Sodium, Dissolved	mg/L	0.000106	0.0440	5.00	23.7	23.7	4.94	4.25 to 5.75	110	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 12:55

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-12V DIS

Laboratory ID Number: BB02250

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02250	Chloride	mg/L	-0.0229	0.500	10.0	13.8	3.90	9.80	9.00 to 11.0	98.2	80.0 to 120	2.03	20.0
BB02250	Sulfate	mg/L	-0.348	0.500	20.0	19.6	0.231	19.0	18.0 to 22.0	98.0	80.0 to 120	0.00	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02250	Fluoride	mg/L	0.0264	0.0500	2.50	2.81	0.172	2.63	2.25 to 2.75	106	80.0 to 120	1.76	20.0
BB02256	Solids, Dissolved	mg/L	-1.00	25.0			255	50.0	40.0 to 60.0			0.196	5.00

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-12

Location Code: WMWGORAP
Collected: 2/1/21 15:37
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02251

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:26		1.015	0.0672	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 13:49		10.15	45.8	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 10:26		1.015	0.602	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:26		1.015	0.0249	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:26		1.015	13.4	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 10:26		1.015	18.5	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:16		1.015	0.622	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 14:58		1.015	0.000518	mg/L	0.000507	0.001015	J
* Arsenic, Total	2/9/21 08:13	2/10/21 14:58		1.015	0.00747	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 14:58		1.015	0.201	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 14:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 14:58		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/9/21 08:13	2/10/21 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 14:58		1.015	0.00792	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 14:58		1.015	1.23	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 14:58		1.015	0.0500	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 14:58		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:47		1.015	0.0525	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	201	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	224	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-12

Location Code: WMWGORAP

Collected: 2/1/21 15:37

Customer ID:

Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02251

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	200	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.88	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:54	2/4/21 12:54		1	3.32	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:25	2/5/21 10:25		1	0.126	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:10	2/10/21 11:10		1	18.7	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/1/21 15:34	2/1/21 15:34			355.40	uS/cm			FA
pH	2/1/21 15:34	2/1/21 15:34			7.55	SU			FA
Temperature	2/1/21 15:34	2/1/21 15:34			14.88	C			FA
Turbidity	2/1/21 15:34	2/1/21 15:34			0.11	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 15:37

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: BB02251

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02250	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	1.44	1.43	0.202	0.170 to 0.230	95.0	70.0 to 130	0.697	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/1/21 15:37

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: BB02251

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02256	Sulfate	mg/L	-0.483	0.500	20.0	23.7	6.01	19.0	18.0 to 22.0	88.0	80.0 to 120	1.32	20.0
BB02256	Chloride	mg/L	-0.020	0.500	10.0	12.9	3.18	9.80	9.00 to 11.0	97.8	80.0 to 120	1.90	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02256	Fluoride	mg/L	0.00548	0.0500	2.50	2.78	0.211	2.63	2.25 to 2.75	103	80.0 to 120	0.473	20.0
BB02256	Solids, Dissolved	mg/L	-1.00	25.0			255	50.0	40.0 to 60.0			0.196	5.00

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-9V

Location Code: WMWGORAP
Collected: 2/2/21 09:47
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02252

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:29		1.015	0.0358	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 13:53		10.15	44.8	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 10:29		1.015	0.412	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:29		1.015	0.0299	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:29		1.015	14.6	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 13:53		10.15	38.9	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7			Analyst: RDA						
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:30		1.015	0.409	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:02		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:02		1.015	0.000101	mg/L	0.000068	0.000203	J
* Barium, Total	2/9/21 08:13	2/10/21 15:02		1.015	0.170	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:02		1.015	0.000228	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:02		1.015	0.000538	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:02		1.015	1.57	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:02		1.015	0.0363	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:02		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: ABB						
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:51		1.015	0.0357	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	237	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	314	mg/L		25	

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. Selenium MS/MSD recoveries failed. Post digestion spike and serial dilution were performed. Matrix issue is suspected. LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-9V

Location Code: WMWGORAP
Collected: 2/2/21 09:47
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02252

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	237	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.34	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:55	2/4/21 12:55		1	10.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:26	2/5/21 10:26		1	0.183	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:11	2/10/21 11:11		1	31.2	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/2/21 09:44	2/2/21 09:44			517.69	uS/cm			FA
pH	2/2/21 09:44	2/2/21 09:44			6.94	SU			FA
Temperature	2/2/21 09:44	2/2/21 09:44			15.03	C			FA
Turbidity	2/2/21 09:44	2/2/21 09:44			0.34	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. Selenium MS/MSD recoveries failed. Post digestion spike and serial dilution were performed. Matrix issue is suspected. LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 09:47

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-9V

Laboratory ID Number: BB02252

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02252	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.247	0.246	0.197	0.170 to 0.230	109	70.0 to 130	0.406	20.0
BB02252	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0991	0.0992	0.104	0.0850 to 0.115	99.1	70.0 to 130	0.101	20.0
BB02252	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0963	0.0962	0.0988	0.0850 to 0.115	96.3	70.0 to 130	0.104	20.0
BB02252	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.263	0.257	0.0955	0.0850 to 0.115	93.0	70.0 to 130	2.31	20.0
BB02252	Potassium, Total	mg/L	0.0165	0.367	10.0	11.5	11.6	10.6	8.50 to 11.5	99.3	70.0 to 130	0.866	20.0
BB02252	Iron, Total	mg/L	0.000510	0.0176	0.2	0.603	0.594	0.202	0.170 to 0.230	95.5	70.0 to 130	1.50	20.0
BB02252	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	0.134	0.133	0.104	0.0850 to 0.115	97.7	70.0 to 130	0.749	20.0
BB02252	Sodium, Total	mg/L	0.00161	0.0440	5.00	43.2	43.4	4.78	4.25 to 5.75	86.0	70.0 to 130	0.462	20.0
BB02252	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.0987	0.0994	0.101	0.0850 to 0.115	98.7	70.0 to 130	0.707	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02252	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.101	0.102	0.104	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02252	Boron, Total	mg/L	0.000682	0.0650	1.00	1.03	1.03	1.00	0.850 to 1.15	99.4	70.0 to 130	0.00	20.0
BB02252	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0938	0.0925	0.0893	0.0850 to 0.115	93.8	70.0 to 130	1.40	20.0
BB02252	Calcium, Total	mg/L	0.00765	0.152	5.00	49.2	49.0	5.06	4.25 to 5.75	88.0	70.0 to 130	0.407	20.0
BB02252	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.0651	0.0629	0.101	0.0850 to 0.115	65.1	70.0 to 130	3.44	20.0
BB02252	Mercury, Total by CVAA	mg/L	0.0000203	0.000500	0.004	0.00419	0.00419	0.00424	0.00340 to 0.00460	105	70.0 to 130	0.00	20.0
BB02252	Magnesium, Total	mg/L	0.00235	0.0462	5.00	19.6	19.3	5.02	4.25 to 5.75	100	70.0 to 130	1.54	20.0
BB02252	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.0964	0.0940	0.0963	0.0850 to 0.115	95.9	70.0 to 130	2.52	20.0
BB02252	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0951	0.0950	0.0859	0.0850 to 0.115	95.1	70.0 to 130	0.105	20.0
BB02252	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0961	0.0948	0.100	0.0850 to 0.115	96.1	70.0 to 130	1.36	20.0
BB02252	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0985	0.0982	0.103	0.0850 to 0.115	98.3	70.0 to 130	0.305	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Selenium MS/MSD recoveries failed. Post digestion spike and serial dilution were performed. Matrix issue is suspected. LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 09:47

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-9V

Laboratory ID Number: BB02252

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02256	Sulfate	mg/L	-0.483	0.500	20.0	23.7	6.01	19.0	18.0 to 22.0	88.0	80.0 to 120	1.32	20.0
BB02256	Chloride	mg/L	-0.020	0.500	10.0	12.9	3.18	9.80	9.00 to 11.0	97.8	80.0 to 120	1.90	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02256	Fluoride	mg/L	0.00548	0.0500	2.50	2.78	0.211	2.63	2.25 to 2.75	103	80.0 to 120	0.473	20.0
BB02256	Solids, Dissolved	mg/L	-1.00	25.0			255	50.0	40.0 to 60.0			0.196	5.00

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Selenium MS/MSD recoveries failed. Post digestion spike and serial dilution were performed. Matrix issue is suspected. LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-40H

Location Code: WMWGORAP
Collected: 2/2/21 11:09
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02253

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:46		1.015	0.0305	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 14:10		10.15	199	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 10:46		1.015	2.91	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:46		1.015	0.0571	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 14:10		10.15	90.8	mg/L	0.21315	4.06	
* Sodium, Total	2/9/21 11:00	2/10/21 14:10		10.15	61.7	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:33		1.015	2.82	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:23		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:23		1.015	0.000958	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:23		1.015	0.0384	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:23		1.015	0.000222	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:23		1.015	0.00200	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:23		1.015	0.00257	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:23		1.015	6.86	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:23		1.015	0.545	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:23		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Manganese, Dissolved	2/8/21 11:56	2/9/21 11:54		1.015	0.517	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB			Preparation Method: EPA 1638				
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 11:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG			Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	280	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW			Preparation Method: EPA 1638				
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	1320	mg/L		100	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-40H

Location Code: WMWGORAP
Collected: 2/2/21 11:09
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02253

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	280	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.13	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:04	2/4/21 13:04		4	36.8	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:27	2/5/21 10:27		1	0.123	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:20	2/10/21 11:20		40	644	mg/L	20.00	40	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/2/21 11:07	2/2/21 11:07			1746.98	uS/cm			FA
pH	2/2/21 11:07	2/2/21 11:07			6.55	SU			FA
Temperature	2/2/21 11:07	2/2/21 11:07			16.17	C			FA
Turbidity	2/2/21 11:07	2/2/21 11:07			4.53	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 11:09

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-40H

Laboratory ID Number: BB02253

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02253	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.610	0.617	0.103	0.0850 to 0.115	93.0	70.0 to 130	1.14	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02256	Mercury, Total by CVAA	mg/L	0.0000151	0.000500	0.004	0.00400	0.00405	0.00421	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 11:09

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-40H

Laboratory ID Number: BB02253

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02256	Sulfate	mg/L	-0.483	0.500	20.0	23.7	6.01	19.0	18.0 to 22.0	88.0	80.0 to 120	1.32	20.0
BB02256	Fluoride	mg/L	0.00548	0.0500	2.50	2.78	0.211	2.63	2.25 to 2.75	103	80.0 to 120	0.473	20.0
BB02256	Solids, Dissolved	mg/L	-1.00	25.0			255	50.0	40.0 to 60.0			0.196	5.00
BB02256	Chloride	mg/L	-0.020	0.500	10.0	12.9	3.18	9.80	9.00 to 11.0	97.8	80.0 to 120	1.90	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-8

Location Code: WMWGORAP
Collected: 2/2/21 12:35
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02254

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:49		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 10:49		1.015	4.35	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 10:49		1.015	0.481	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:49		1.015	0.00796	mg/L	0.007105	0.01999956	J
* Magnesium, Total	2/9/21 11:00	2/10/21 10:49		1.015	7.17	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 10:49		1.015	10.7	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:37		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:27		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:27		1.015	0.000228	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:27		1.015	0.00680	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:27		1.015	0.000389	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:27		1.015	0.000384	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 15:27		1.015	0.0000809	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/9/21 08:13	2/10/21 15:27		1.015	0.802	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:27		1.015	0.0821	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:27		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:16		1.015	0.0893	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB			Preparation Method: EPA 1638				
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 12:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG			Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	59.1	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW			Preparation Method: EPA 1638				
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	98.7	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-8

Location Code: WMWGORAP
Collected: 2/2/21 12:35
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02254

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	59.1	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.01	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:58	2/4/21 12:58		1	3.85	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:28	2/5/21 10:28		1	0.114	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:14	2/10/21 11:14		1	4.83	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/2/21 12:32	2/2/21 12:32			123.13	uS/cm			FA
pH	2/2/21 12:32	2/2/21 12:32			5.69	SU			FA
Temperature	2/2/21 12:32	2/2/21 12:32			14.54	C			FA
Turbidity	2/2/21 12:32	2/2/21 12:32			6.55	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 12:35

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: BB02254

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	0.00	20.0
BB02256	Mercury, Total by CVAA	mg/L	0.0000151	0.000500	0.004	0.00400	0.00405	0.00421	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 12:35

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: BB02254

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02256	Sulfate	mg/L	-0.483	0.500	20.0	23.7	6.01	19.0	18.0 to 22.0	88.0	80.0 to 120	1.32	20.0
BB02256	Chloride	mg/L	-0.020	0.500	10.0	12.9	3.18	9.80	9.00 to 11.0	97.8	80.0 to 120	1.90	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02256	Fluoride	mg/L	0.00548	0.0500	2.50	2.78	0.211	2.63	2.25 to 2.75	103	80.0 to 120	0.473	20.0
BB02256	Solids, Dissolved	mg/L	-1.00	25.0			255	50.0	40.0 to 60.0			0.196	5.00

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-24H

Location Code: WMWGORAP
Collected: 2/2/21 14:15
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02255

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:53		1.015	0.0685	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 14:13		10.15	42.4	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 10:53		1.015	2.10	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:53		1.015	0.0247	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:53		1.015	13.9	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 10:53		1.015	30.8	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:40		1.015	2.01	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:30		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:30		1.015	0.000341	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:30		1.015	0.952	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:30		1.015	0.000382	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:30		1.015	0.000192	mg/L	0.000068	0.000203	J
* Lead, Total	2/9/21 08:13	2/10/21 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:30		1.015	0.000563	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:30		1.015	1.60	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:30		1.015	0.102	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:30		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:19		1.015	0.101	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 12:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	220	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	259	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-24H

Location Code: WMWGORAP
Collected: 2/2/21 14:15
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02255

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	220	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.30	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 12:59	2/4/21 12:59		1	3.06	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:30	2/5/21 10:30		1	0.209	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:15	2/10/21 11:15		1	6.43	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/2/21 14:13	2/2/21 14:13			414.69	uS/cm			FA
pH	2/2/21 14:13	2/2/21 14:13			6.93	SU			FA
Temperature	2/2/21 14:13	2/2/21 14:13			17.17	C			FA
Turbidity	2/2/21 14:13	2/2/21 14:13			1.49	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 14:15

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-24H

Laboratory ID Number: BB02255

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02256	Mercury, Total by CVAA	mg/L	0.0000151	0.000500	0.004	0.00400	0.00405	0.00421	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 14:15

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-24H

Laboratory ID Number: BB02255

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02256	Sulfate	mg/L	-0.483	0.500	20.0	23.7	6.01	19.0	18.0 to 22.0	88.0	80.0 to 120	1.32	20.0
BB02256	Fluoride	mg/L	0.00548	0.0500	2.50	2.78	0.211	2.63	2.25 to 2.75	103	80.0 to 120	0.473	20.0
BB02256	Solids, Dissolved	mg/L	-1.00	25.0			255	50.0	40.0 to 60.0			0.196	5.00
BB02256	Chloride	mg/L	-0.020	0.500	10.0	12.9	3.18	9.80	9.00 to 11.0	97.8	80.0 to 120	1.90	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-24H DUP

Location Code: WMWGORAP
Collected: 2/2/21 14:15
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02256

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:56		1.015	0.0678	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 14:16		10.15	42.2	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 10:56		1.015	2.09	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:56		1.015	0.0241	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 10:56		1.015	13.8	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 10:56		1.015	30.9	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:43		1.015	2.02	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:34		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:34		1.015	0.000377	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:34		1.015	0.951	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:34		1.015	0.000305	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:34		1.015	0.000183	mg/L	0.000068	0.000203	J
* Lead, Total	2/9/21 08:13	2/10/21 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:34		1.015	0.000560	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:34		1.015	1.57	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:34		1.015	0.103	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:34		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:23		1.015	0.104	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/4/21 11:20	2/5/21 12:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	218	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/3/21 15:10	2/5/21 07:45		1	256	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-24H DUP

Location Code: WMWGORAP
Collected: 2/2/21 14:15
Customer ID:
Submittal Date: 2/2/21 19:17

Laboratory ID Number: BB02256

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	218	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.31	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:00	2/4/21 13:00		1	3.12	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:31	2/5/21 10:31		1	0.212	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:16	2/10/21 11:16		1	6.09	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/2/21 14:13	2/2/21 14:13			414.69	uS/cm			FA
pH	2/2/21 14:13	2/2/21 14:13			6.93	SU			FA
Temperature	2/2/21 14:13	2/2/21 14:13			17.17	C			FA
Turbidity	2/2/21 14:13	2/2/21 14:13			1.49	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 14:15

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-24H DUP

Laboratory ID Number: BB02256

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02256	Mercury, Total by CVAA	mg/L	0.0000151	0.000500	0.004	0.00400	0.00405	0.00421	0.00340 to 0.00460	100	70.0 to 130	1.24	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/2/21 14:15

Customer ID:

Delivery Date: 2/2/21 19:17

Description: Gorgas Ash Pond - MW-24H DUP

Laboratory ID Number: BB02256

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02256	Sulfate	mg/L	-0.483	0.500	20.0	23.7	6.01	19.0	18.0 to 22.0	88.0	80.0 to 120	1.32	20.0
BB02256	Chloride	mg/L	-0.020	0.500	10.0	12.9	3.18	9.80	9.00 to 11.0	97.8	80.0 to 120	1.90	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02256	Fluoride	mg/L	0.00548	0.0500	2.50	2.78	0.211	2.63	2.25 to 2.75	103	80.0 to 120	0.473	20.0
BB02256	Solids, Dissolved	mg/L	-1.00	25.0			255	50.0	40.0 to 60.0			0.196	5.00

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-42H

Location Code: WMWGORAP
Collected: 2/3/21 09:20
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02421

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 10:59		1.015	0.0530	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 14:20		10.15	134	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 10:59		1.015	4.05	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 10:59		1.015	0.0356	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 14:20		10.15	48.1	mg/L	0.21315	4.06	
* Sodium, Total	2/9/21 11:00	2/10/21 10:59		1.015	33.5	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:47		1.015	3.87	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:37		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:37		1.015	0.00806	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:37		1.015	0.0216	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:37		1.015	0.000298	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:37		1.015	0.000752	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:37		1.015	0.00174	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:37		1.015	2.23	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:37		1.015	0.999	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:37		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:26		1.015	1.01	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	197	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	768	mg/L		50	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-42H

Location Code: WMWGORAP
Collected: 2/3/21 09:20
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02421

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	197	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.09	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:41	2/4/21 13:41		1	10.1	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:43	2/5/21 10:43		1	0.131	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:57	2/10/21 11:57		20	373	mg/L	10.00	20	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/3/21 09:18	2/3/21 09:18			1041.69	uS/cm			FA
pH	2/3/21 09:18	2/3/21 09:18			6.47	SU			FA
Temperature	2/3/21 09:18	2/3/21 09:18			16.63	C			FA
Turbidity	2/3/21 09:18	2/3/21 09:18			4.71	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 09:20

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-42H

Laboratory ID Number: BB02421

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	0.00	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 09:20

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-42H

Laboratory ID Number: BB02421

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-29H

Location Code: WMWGORAP
Collected: 2/3/21 10:46
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02422

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:03		1.015	0.809	mg/L	0.030000	0.1015	
* Calcium, Total	2/9/21 11:00	2/10/21 11:03		1.015	26.1	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 11:03		1.015	0.360	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 11:03		1.015	0.0915	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 11:03		1.015	8.90	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 14:23		101.5	120	mg/L	2.030	40.6	
Analytical Method: EPA 200.7			Analyst: RDA						
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:50		1.015	0.310	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:41		1.015	0.00794	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:41		1.015	0.318	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:41		1.015	0.0623	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:41		1.015	1.72	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:41		1.015	0.0244	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: ABB						
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:30		1.015	0.0244	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	224	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	480	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-29H

Location Code: WMWGORAP

Collected: 2/3/21 10:46

Customer ID:

Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02422

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	223	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	1.38	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:42	2/4/21 13:42		1	18.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:44	2/5/21 10:44		1	0.267	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 11:59	2/10/21 11:59		8	135	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/3/21 10:43	2/3/21 10:43			760.59	uS/cm			FA
pH	2/3/21 10:43	2/3/21 10:43			7.63	SU			FA
Temperature	2/3/21 10:43	2/3/21 10:43			16.53	C			FA
Turbidity	2/3/21 10:43	2/3/21 10:43			0.73	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:46

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-29H

Laboratory ID Number: BB02422

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.0000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:46

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-29H

Laboratory ID Number: BB02422

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond Field Blank-1

Location Code: WMWGORAPFB
Collected: 2/3/21 11:45
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02423

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:06		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 11:06		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/9/21 11:00	2/10/21 11:06		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/9/21 11:00	2/10/21 11:06		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/9/21 11:00	2/10/21 11:06		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/9/21 11:00	2/10/21 11:06		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:45		1.015	0.000232	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	2/4/21 13:43	2/4/21 13:43		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	2/5/21 10:45	2/5/21 10:45		1	0.0683	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	2/10/21 12:00	2/10/21 12:00		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/3/21 11:45

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB02423

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/3/21 11:45

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB02423

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-18V

Location Code: WMWGORAP
Collected: 2/3/21 12:00
Customer ID:
Submission Date: 2/4/21 11:39

Laboratory ID Number: BB02424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:10		1.015	0.0766	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 11:10		1.015	5.57	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 11:10		1.015	0.137	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 11:10		1.015	0.0293	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 11:10		1.015	1.78	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 14:27		101.5	107	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 11:53		1.015	0.0737	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:48		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 15:48		1.015	0.00588	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:48		1.015	0.260	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:48		1.015	0.000212	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:48		1.015	0.0236	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:48		1.015	1.33	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 15:48		1.015	0.0214	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:48		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:34		1.015	0.0215	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:38		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	258	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	308	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-18V

Location Code: WMWGORAP
Collected: 2/3/21 12:00
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	250	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	7.44	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:44	2/4/21 13:44		1	5.68	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:46	2/5/21 10:46		1	0.334	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:01	2/10/21 12:01		1	14.6	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/3/21 11:58	2/3/21 11:58			500.41	uS/cm			FA
pH	2/3/21 11:58	2/3/21 11:58			8.42	SU			FA
Temperature	2/3/21 11:58	2/3/21 11:58			13.70	C			FA
Turbidity	2/3/21 11:58	2/3/21 11:58			0.68	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 12:00

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-18V

Laboratory ID Number: BB02424

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	0.00	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 12:00

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-18V

Laboratory ID Number: BB02424

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6S

Location Code: WMWGORAP
Collected: 2/3/21 09:40
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:13		1.015	0.817	mg/L	0.030000	0.1015	
* Calcium, Total	2/9/21 11:00	2/10/21 14:30		10.15	50.7	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 14:30		10.15	5.76	mg/L	0.08120	0.406	
* Lithium, Total	2/9/21 11:00	2/10/21 11:13		1.015	0.0455	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 11:13		1.015	18.6	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 11:13		1.015	7.79	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 14:09		10.15	4.84	mg/L	0.08120	0.406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:52		1.015	0.000550	mg/L	0.000507	0.001015	J
* Arsenic, Total	2/9/21 08:13	2/10/21 15:52		1.015	0.00710	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:52		1.015	0.0779	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:52		1.015	0.000268	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:52		1.015	0.000663	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 15:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:52		1.015	0.0218	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:52		1.015	3.46	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/12/21 11:18		10.15	2.79	mg/L	0.000680	0.00203	
* Selenium, Total	2/9/21 08:13	2/10/21 15:52		1.015	0.000794	mg/L	0.000507	0.001015	J
* Thallium, Total	2/9/21 08:13	2/10/21 15:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/12/21 09:19		10.15	2.60	mg/L	0.000680	0.00203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	88.6	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	274	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6S

Location Code: WMWGORAP
Collected: 2/3/21 09:40
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	88.5	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.09	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:46	2/4/21 13:46		1	14.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:48	2/5/21 10:48		1	0.195	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:02	2/10/21 12:02		8	116	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/3/21 09:37	2/3/21 09:37			456.84	uS/cm			FA
pH	2/3/21 09:37	2/3/21 09:37			7.05	SU			FA
Temperature	2/3/21 09:37	2/3/21 09:37			15.27	C			FA
Turbidity	2/3/21 09:37	2/3/21 09:37			3.58	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 09:40

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: BB02425

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 09:40

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: BB02425

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6S DUP

Location Code: WMWGORAP
Collected: 2/3/21 09:40
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:16		1.015	0.812	mg/L	0.030000	0.1015	
* Calcium, Total	2/9/21 11:00	2/10/21 14:33		10.15	51.0	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 14:33		10.15	5.50	mg/L	0.08120	0.406	RA
* Lithium, Total	2/9/21 11:00	2/10/21 11:16		1.015	0.0466	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 11:16		1.015	18.5	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 11:16		1.015	7.71	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 14:12		10.15	4.71	mg/L	0.08120	0.406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 15:55		1.015	0.000729	mg/L	0.000507	0.001015	J
* Arsenic, Total	2/9/21 08:13	2/10/21 15:55		1.015	0.00720	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 15:55		1.015	0.0785	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 15:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 15:55		1.015	0.000280	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 15:55		1.015	0.000650	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 15:55		1.015	0.0225	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 15:55		1.015	3.61	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/12/21 11:22		10.15	2.85	mg/L	0.000680	0.00203	RA
* Selenium, Total	2/9/21 08:13	2/10/21 15:55		1.015	0.000828	mg/L	0.000507	0.001015	J
* Thallium, Total	2/9/21 08:13	2/10/21 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/12/21 09:23		10.15	2.58	mg/L	0.000680	0.00203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/10/21 09:48	2/10/21 11:45		1	88.3	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	277	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6S DUP

Location Code: WMWGORAP
Collected: 2/3/21 09:40
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	88.2	mg/L			
Carbonate Alkalinity, (calc.)	2/10/21 09:48	2/10/21 11:45		1	0.08	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:47	2/4/21 13:47		1	15.1	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:49	2/5/21 10:49		1	0.187	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:03	2/10/21 12:03		8	116	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/3/21 09:37	2/3/21 09:37			456.84	uS/cm			FA
pH	2/3/21 09:37	2/3/21 09:37			7.05	SU			FA
Temperature	2/3/21 09:37	2/3/21 09:37			15.27	C			FA
Turbidity	2/3/21 09:37	2/3/21 09:37			3.58	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 09:40

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6S DUP

Laboratory ID Number: BB02426

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02426	Iron, Total	mg/L	0.000510	0.0176	0.2	5.72	5.84	0.202	0.170 to 0.230	110	70.0 to 130	2.08	20.0
BB02426	Iron, Dissolved	mg/L	-0.0000638	0.0176	0.2	4.94	4.85	0.202	0.170 to 0.230	115	70.0 to 130	1.84	20.0
BB02426	Boron, Total	mg/L	0.000682	0.0650	1.00	1.80	1.81	1.00	0.850 to 1.15	98.8	70.0 to 130	0.554	20.0
BB02426	Thallium, Total	mg/L	0.000003	0.000147	0.10	0.0977	0.0975	0.0988	0.0850 to 0.115	97.7	70.0 to 130	0.205	20.0
BB02426	Arsenic, Total	mg/L	-0.0000367	0.000147	0.10	0.108	0.109	0.104	0.0850 to 0.115	101	70.0 to 130	0.922	20.0
BB02426	Calcium, Total	mg/L	0.00765	0.152	5.00	55.4	57.0	5.06	4.25 to 5.75	88.0	70.0 to 130	2.85	20.0
BB02426	Lithium, Total	mg/L	0.0000582	0.0154	0.20	0.261	0.259	0.197	0.170 to 0.230	107	70.0 to 130	0.769	20.0
BB02426	Chromium, Total	mg/L	0.0000007	0.000440	0.10	0.0949	0.0999	0.103	0.0850 to 0.115	94.6	70.0 to 130	5.13	20.0
BB02426	Potassium, Total	mg/L	0.0165	0.367	10.0	13.1	13.7	10.6	8.50 to 11.5	94.9	70.0 to 130	4.48	20.0
BB02426	Manganese, Total	mg/L	-0.0000005	0.000147	0.10	2.89	2.83	0.104	0.0850 to 0.115	40.0	70.0 to 130	2.10	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02426	Barium, Total	mg/L	0.0000107	0.000200	0.10	0.166	0.168	0.0955	0.0850 to 0.115	87.5	70.0 to 130	1.20	20.0
BB02426	Beryllium, Total	mg/L	0.0000072	0.000880	0.10	0.0938	0.0941	0.0859	0.0850 to 0.115	93.8	70.0 to 130	0.319	20.0
BB02426	Cobalt, Total	mg/L	-0.0000016	0.000147	0.10	0.0959	0.101	0.104	0.0850 to 0.115	95.2	70.0 to 130	5.18	20.0
BB02426	Sodium, Total	mg/L	0.00161	0.0440	5.00	13.1	13.1	4.78	4.25 to 5.75	108	70.0 to 130	0.00	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	0.00	20.0
BB02426	Cadmium, Total	mg/L	0.00000	0.000147	0.10	0.0953	0.0992	0.100	0.0850 to 0.115	95.3	70.0 to 130	4.01	20.0
BB02426	Molybdenum, Total	mg/L	0.0000071	0.000147	0.10	0.117	0.117	0.0963	0.0850 to 0.115	94.5	70.0 to 130	0.00	20.0
BB02426	Lead, Total	mg/L	0.0000039	0.000147	0.10	0.101	0.100	0.101	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02426	Antimony, Total	mg/L	0.000141	0.00100	0.10	0.0914	0.0908	0.0893	0.0850 to 0.115	90.7	70.0 to 130	0.659	20.0
BB02426	Magnesium, Total	mg/L	0.00235	0.0462	5.00	23.3	23.3	5.02	4.25 to 5.75	96.0	70.0 to 130	0.00	20.0
BB02426	Selenium, Total	mg/L	0.0000867	0.00100	0.10	0.102	0.102	0.101	0.0850 to 0.115	101	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 09:40

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6S DUP

Laboratory ID Number: BB02426

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02426	Alkalinity, Total as CaCO3	mg/L					90.1	51.3	45.0 to 55.0			2.02	10.0
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6D

Location Code: WMWGORAP
Collected: 2/3/21 10:40
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:40		1.015	1.24	mg/L	0.030000	0.1015	
* Calcium, Total	2/9/21 11:00	2/10/21 14:50		10.15	56.9	mg/L	0.70035	4.06	
* Iron, Total	2/9/21 11:00	2/10/21 11:40		1.015	0.0229	mg/L	0.008120	0.0406	J
* Lithium, Total	2/9/21 11:00	2/10/21 11:40		1.015	0.312	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 11:40		1.015	15.7	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 11:40		1.015	30.1	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7			Analyst: RDA						
* Iron, Dissolved	2/8/21 12:00	2/9/21 12:24		1.015	0.0168	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 16:24		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 16:24		1.015	0.104	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 16:24		1.015	0.443	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 16:24		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 16:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 16:24		1.015	0.000264	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 16:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/9/21 08:13	2/10/21 16:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 16:24		1.015	0.00950	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 16:24		1.015	2.43	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 16:24		1.015	0.177	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 16:24		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 16:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: ABB						
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:45		1.015	0.178	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:46		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	234	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	301	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6D

Location Code: WMWGORAP
Collected: 2/3/21 10:40
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	233	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.83	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:48	2/4/21 13:48		1	12.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:50	2/5/21 10:50		1	0.135	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:05	2/10/21 12:05		3	58.9	mg/L	1.50	3	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/3/21 10:36	2/3/21 10:36			493.96	uS/cm			FA
pH	2/3/21 10:36	2/3/21 10:36			7.55	SU			FA
Temperature	2/3/21 10:36	2/3/21 10:36			16.75	C			FA
Turbidity	2/3/21 10:36	2/3/21 10:36			0.01	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:40

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: BB02427

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02429	Barium, Total	mg/L	-0.0000006	0.000200	0.10	0.106	0.108	0.0965	0.0850 to 0.115	92.2	70.0 to 130	1.87	20.0
BB02429	Calcium, Total	mg/L	-0.000419	0.152	5.00	81.2	81.1	5.01	4.25 to 5.75	112	70.0 to 130	0.123	20.0
BB02429	Potassium, Total	mg/L	0.0170	0.367	10.0	11.4	11.5	10.3	8.50 to 11.5	99.1	70.0 to 130	0.873	20.0
BB02429	Manganese, Total	mg/L	0.0000272	0.000147	0.100	1.75	1.76	0.100	0.0850 to 0.115	110	70.0 to 130	0.570	20.0
BB02429	Arsenic, Total	mg/L	0.0000455	0.000147	0.10	0.156	0.162	0.104	0.0850 to 0.115	99.8	70.0 to 130	3.77	20.0
BB02429	Chromium, Total	mg/L	-0.0000115	0.000440	0.10	0.0971	0.0960	0.101	0.0850 to 0.115	96.9	70.0 to 130	1.14	20.0
BB02429	Sodium, Total	mg/L	0.000326	0.0440	5.00	23.6	23.5	4.79	4.25 to 5.75	112	70.0 to 130	0.425	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	0.00	20.0
BB02429	Cadmium, Total	mg/L	0.0000277	0.000147	0.10	0.0944	0.0953	0.0978	0.0850 to 0.115	94.4	70.0 to 130	0.949	20.0
BB02429	Beryllium, Total	mg/L	0.0000265	0.000880	0.10	0.0917	0.0927	0.0951	0.0850 to 0.115	91.7	70.0 to 130	1.08	20.0
BB02429	Boron, Total	mg/L	0.00124	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BB02429	Iron, Dissolved	mg/L	0.0000869	0.0176	0.2	48.4	48.4	0.206	0.170 to 0.230	0.00	70.0 to 130	0.00	20.0
BB02429	Iron, Total	mg/L	0.000632	0.0176	0.2	49.3	49.7	0.201	0.170 to 0.230	100	70.0 to 130	0.808	20.0
BB02429	Lithium, Total	mg/L	0.0000568	0.0154	0.20	0.252	0.252	0.197	0.170 to 0.230	110	70.0 to 130	0.00	20.0
BB02429	Magnesium, Total	mg/L	0.00259	0.0462	5.00	39.9	40.0	5.02	4.25 to 5.75	96.0	70.0 to 130	0.250	20.0
BB02429	Molybdenum, Total	mg/L	0.0000538	0.000147	0.10	0.0946	0.0943	0.0966	0.0850 to 0.115	93.7	70.0 to 130	0.318	20.0
BB02429	Antimony, Total	mg/L	0.000185	0.00100	0.10	0.0923	0.0931	0.0916	0.0850 to 0.115	92.3	70.0 to 130	0.863	20.0
BB02429	Cobalt, Total	mg/L	0.0000273	0.000147	0.10	0.0976	0.0973	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.308	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02429	Lead, Total	mg/L	0.0000345	0.000147	0.10	0.0989	0.100	0.100	0.0850 to 0.115	98.9	70.0 to 130	1.11	20.0
BB02429	Selenium, Total	mg/L	0.000126	0.00100	0.10	0.0978	0.0986	0.103	0.0850 to 0.115	97.8	70.0 to 130	0.815	20.0
BB02429	Thallium, Total	mg/L	0.0000291	0.000147	0.10	0.0961	0.0981	0.0968	0.0850 to 0.115	96.1	70.0 to 130	2.06	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:40

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: BB02427

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6V

Location Code: WMWGORAP
Collected: 2/3/21 13:25
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:43		1.015	0.100	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 11:43		1.015	1.50	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 11:43		1.015	0.135	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 11:43		1.015	0.156	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 11:43		1.015	0.473	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 14:54		101.5	331	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 12:27		1.015	0.0283	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 16:28		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 16:28		1.015	0.000767	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 16:28		1.015	0.124	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 16:28		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 16:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 16:28		1.015	0.000274	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 16:28		1.015	0.0000819	mg/L	0.000068	0.000203	J
* Lead, Total	2/9/21 08:13	2/10/21 16:28		1.015	0.000155	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/9/21 08:13	2/10/21 16:28		1.015	0.00284	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 16:28		1.015	1.36	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/10/21 16:28		1.015	0.0140	mg/L	0.000068	0.000203	
* Selenium, Total	2/9/21 08:13	2/10/21 16:28		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 16:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/9/21 12:49		1.015	0.0136	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	840	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	840	mg/L		83.3	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6V

Location Code: WMWGORAP

Collected: 2/3/21 13:25

Customer ID:

Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	792	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	48.1	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:54	2/4/21 13:54		10	48.0	mg/L	5.00	10	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:51	2/5/21 10:51		1	4.28	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:06	2/10/21 12:06		1	4.29	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/3/21 13:22	2/3/21 13:22			1378.13	uS/cm			FA
pH	2/3/21 13:22	2/3/21 13:22			8.90	SU			FA
Temperature	2/3/21 13:22	2/3/21 13:22			16.80	C			FA
Turbidity	2/3/21 13:22	2/3/21 13:22			3.81	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 13:25

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6V

Laboratory ID Number: BB02428

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02429	Barium, Total	mg/L	-0.0000006	0.000200	0.10	0.106	0.108	0.0965	0.0850 to 0.115	92.2	70.0 to 130	1.87	20.0
BB02429	Cobalt, Total	mg/L	0.0000273	0.000147	0.10	0.0976	0.0973	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.308	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02429	Lead, Total	mg/L	0.0000345	0.000147	0.10	0.0989	0.100	0.100	0.0850 to 0.115	98.9	70.0 to 130	1.11	20.0
BB02428	Manganese, Dissolved	mg/L	0.0000034	0.000147	0.10	0.109	0.109	0.103	0.0850 to 0.115	95.4	70.0 to 130	0.00	20.0
BB02429	Cadmium, Total	mg/L	0.0000277	0.000147	0.10	0.0944	0.0953	0.0978	0.0850 to 0.115	94.4	70.0 to 130	0.949	20.0
BB02429	Calcium, Total	mg/L	-0.000419	0.152	5.00	81.2	81.1	5.01	4.25 to 5.75	112	70.0 to 130	0.123	20.0
BB02429	Potassium, Total	mg/L	0.0170	0.367	10.0	11.4	11.5	10.3	8.50 to 11.5	99.1	70.0 to 130	0.873	20.0
BB02429	Manganese, Total	mg/L	0.0000272	0.000147	0.100	1.75	1.76	0.100	0.0850 to 0.115	110	70.0 to 130	0.570	20.0
BB02429	Beryllium, Total	mg/L	0.0000265	0.000880	0.10	0.0917	0.0927	0.0951	0.0850 to 0.115	91.7	70.0 to 130	1.08	20.0
BB02429	Boron, Total	mg/L	0.00124	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BB02429	Iron, Dissolved	mg/L	0.0000869	0.0176	0.2	48.4	48.4	0.206	0.170 to 0.230	0.00	70.0 to 130	0.00	20.0
BB02429	Iron, Total	mg/L	0.000632	0.0176	0.2	49.3	49.7	0.201	0.170 to 0.230	100	70.0 to 130	0.808	20.0
BB02429	Lithium, Total	mg/L	0.0000568	0.0154	0.20	0.252	0.252	0.197	0.170 to 0.230	110	70.0 to 130	0.00	20.0
BB02429	Magnesium, Total	mg/L	0.00259	0.0462	5.00	39.9	40.0	5.02	4.25 to 5.75	96.0	70.0 to 130	0.250	20.0
BB02429	Molybdenum, Total	mg/L	0.0000538	0.000147	0.10	0.0946	0.0943	0.0966	0.0850 to 0.115	93.7	70.0 to 130	0.318	20.0
BB02429	Antimony, Total	mg/L	0.000185	0.00100	0.10	0.0923	0.0931	0.0916	0.0850 to 0.115	92.3	70.0 to 130	0.863	20.0
BB02429	Arsenic, Total	mg/L	0.0000455	0.000147	0.10	0.156	0.162	0.104	0.0850 to 0.115	99.8	70.0 to 130	3.77	20.0
BB02429	Chromium, Total	mg/L	-0.0000115	0.000440	0.10	0.0971	0.0960	0.101	0.0850 to 0.115	96.9	70.0 to 130	1.14	20.0
BB02429	Sodium, Total	mg/L	0.000326	0.0440	5.00	23.6	23.5	4.79	4.25 to 5.75	112	70.0 to 130	0.425	20.0
BB02429	Selenium, Total	mg/L	0.000126	0.00100	0.10	0.0978	0.0986	0.103	0.0850 to 0.115	97.8	70.0 to 130	0.815	20.0
BB02429	Thallium, Total	mg/L	0.0000291	0.000147	0.10	0.0961	0.0981	0.0968	0.0850 to 0.115	96.1	70.0 to 130	2.06	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 13:25

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-6V

Laboratory ID Number: BB02428

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-23H

Location Code: WMWGORAP
Collected: 2/3/21 14:50
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02429

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 11:47		1.015	0.0425	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 14:57		50.75	75.6	mg/L	3.50175	20.3	
* Iron, Total	2/9/21 11:00	2/10/21 14:57		50.75	49.1	mg/L	0.40600	2.03	RA
* Lithium, Total	2/9/21 11:00	2/10/21 11:47		1.015	0.0319	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 11:47		1.015	35.1	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 11:47		1.015	18.0	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 14:29		101.5	48.4	mg/L	0.8120	4.06	RA
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	2/9/21 08:13	2/10/21 16:31		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/9/21 08:13	2/10/21 16:31		1.015	0.0562	mg/L	0.000068	0.000203	
* Barium, Total	2/9/21 08:13	2/10/21 16:31		1.015	0.0138	mg/L	0.000101	0.000203	
* Beryllium, Total	2/9/21 08:13	2/10/21 16:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/9/21 08:13	2/10/21 16:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/9/21 08:13	2/10/21 16:31		1.015	0.000222	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/9/21 08:13	2/10/21 16:31		1.015	0.000512	mg/L	0.000068	0.000203	
* Lead, Total	2/9/21 08:13	2/10/21 16:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/9/21 08:13	2/10/21 16:31		1.015	0.000902	mg/L	0.000068	0.000203	
* Potassium, Total	2/9/21 08:13	2/10/21 16:31		1.015	1.49	mg/L	0.169505	0.5075	
* Manganese, Total	2/9/21 08:13	2/12/21 11:36		10.15	1.64	mg/L	0.000680	0.00203	
* Selenium, Total	2/9/21 08:13	2/10/21 16:31		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/9/21 08:13	2/10/21 16:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:56	2/12/21 09:26		10.15	1.64	mg/L	0.000680	0.00203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 10:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	104	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	612	mg/L		50	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-23H

Location Code: WMWGORAP
Collected: 2/3/21 14:50
Customer ID:
Submittal Date: 2/4/21 11:39

Laboratory ID Number: BB02429

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	104	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.02	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 13:50	2/4/21 13:50		1	2.07	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 10:52	2/5/21 10:52		1	0.156	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:07	2/10/21 12:07		20	339	mg/L	10.00	20	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/3/21 14:48	2/3/21 14:48			807.29	uS/cm			FA
pH	2/3/21 14:48	2/3/21 14:48			6.22	SU			FA
Temperature	2/3/21 14:48	2/3/21 14:48			17.20	C			FA
Turbidity	2/3/21 14:48	2/3/21 14:48			0.6	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 14:50

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-23H

Laboratory ID Number: BB02429

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02429	Barium, Total	mg/L	-0.0000006	0.000200	0.10	0.106	0.108	0.0965	0.0850 to 0.115	92.2	70.0 to 130	1.87	20.0
BB02429	Cadmium, Total	mg/L	0.0000277	0.000147	0.10	0.0944	0.0953	0.0978	0.0850 to 0.115	94.4	70.0 to 130	0.949	20.0
BB02429	Lithium, Total	mg/L	0.0000568	0.0154	0.20	0.252	0.252	0.197	0.170 to 0.230	110	70.0 to 130	0.00	20.0
BB02429	Magnesium, Total	mg/L	0.00259	0.0462	5.00	39.9	40.0	5.02	4.25 to 5.75	96.0	70.0 to 130	0.250	20.0
BB02429	Molybdenum, Total	mg/L	0.0000538	0.000147	0.10	0.0946	0.0943	0.0966	0.0850 to 0.115	93.7	70.0 to 130	0.318	20.0
BB02429	Antimony, Total	mg/L	0.000185	0.00100	0.10	0.0923	0.0931	0.0916	0.0850 to 0.115	92.3	70.0 to 130	0.863	20.0
BB02429	Calcium, Total	mg/L	-0.000419	0.152	5.00	81.2	81.1	5.01	4.25 to 5.75	112	70.0 to 130	0.123	20.0
BB02429	Potassium, Total	mg/L	0.0170	0.367	10.0	11.4	11.5	10.3	8.50 to 11.5	99.1	70.0 to 130	0.873	20.0
BB02429	Manganese, Total	mg/L	0.0000272	0.000147	0.100	1.75	1.76	0.100	0.0850 to 0.115	110	70.0 to 130	0.570	20.0
BB02250	Manganese, Dissolved	mg/L	0.0000024	0.000147	0.100	0.169	0.169	0.102	0.0850 to 0.115	98.4	70.0 to 130	0.00	20.0
BB02429	Arsenic, Total	mg/L	0.0000455	0.000147	0.10	0.156	0.162	0.104	0.0850 to 0.115	99.8	70.0 to 130	3.77	20.0
BB02429	Chromium, Total	mg/L	-0.0000115	0.000440	0.10	0.0971	0.0960	0.101	0.0850 to 0.115	96.9	70.0 to 130	1.14	20.0
BB02429	Sodium, Total	mg/L	0.000326	0.0440	5.00	23.6	23.5	4.79	4.25 to 5.75	112	70.0 to 130	0.425	20.0
BB02429	Beryllium, Total	mg/L	0.0000265	0.000880	0.10	0.0917	0.0927	0.0951	0.0850 to 0.115	91.7	70.0 to 130	1.08	20.0
BB02429	Boron, Total	mg/L	0.00124	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BB02429	Iron, Dissolved	mg/L	0.0000869	0.0176	0.2	48.4	48.4	0.206	0.170 to 0.230	0.00	70.0 to 130	0.00	20.0
BB02429	Iron, Total	mg/L	0.000632	0.0176	0.2	49.3	49.7	0.201	0.170 to 0.230	100	70.0 to 130	0.808	20.0
BB02429	Cobalt, Total	mg/L	0.0000273	0.000147	0.10	0.0976	0.0973	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.308	20.0
BB02429	Mercury, Total by CVAA	mg/L	0.0000539	0.000500	0.004	0.00420	0.00430	0.00433	0.00340 to 0.00460	105	70.0 to 130	2.35	20.0
BB02429	Lead, Total	mg/L	0.0000345	0.000147	0.10	0.0989	0.100	0.100	0.0850 to 0.115	98.9	70.0 to 130	1.11	20.0
BB02429	Selenium, Total	mg/L	0.000126	0.00100	0.10	0.0978	0.0986	0.103	0.0850 to 0.115	97.8	70.0 to 130	0.815	20.0
BB02429	Thallium, Total	mg/L	0.0000291	0.000147	0.10	0.0961	0.0981	0.0968	0.0850 to 0.115	96.1	70.0 to 130	2.06	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 14:50

Customer ID:

Delivery Date: 2/4/21 11:39

Description: Gorgas Ash Pond - MW-23H

Laboratory ID Number: BB02429

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02429	Sulfate	mg/L	-0.279	0.500	400	728	346	19.0	18.0 to 22.0	97.2	80.0 to 120	2.04	20.0
BB02429	Fluoride	mg/L	0.0252	0.0500	2.50	2.82	0.131	2.63	2.25 to 2.75	107	80.0 to 120	17.4	20.0
BB02429	Solids, Dissolved	mg/L	1.00	25.0			610	49.0	40.0 to 60.0			0.164	5.00
BB02429	Chloride	mg/L	-0.0217	0.500	10.0	11.9	2.08	9.84	9.00 to 11.0	98.3	80.0 to 120	0.482	20.0
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-19

Location Code: WMWGORAP
Collected: 2/8/21 10:08
Customer ID:
Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02882

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:28		1.015	0.0336	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 14:10		10.15	56.8	mg/L	0.70035	4.06	
* Iron, Total	2/17/21 14:44	2/18/21 12:28		1.015	0.418	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 12:28		1.015	0.0368	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:28		1.015	15.8	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 14:10		10.15	46.4	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 10:56		1.015	0.396	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 09:52		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 09:52		1.015	0.00178	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 09:52		1.015	0.360	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 09:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 09:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 09:52		1.015	0.000258	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 09:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 09:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 09:52		1.015	0.00366	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 09:52		1.015	2.20	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 09:52		1.015	0.0250	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 09:52		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 09:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:15		1.015	0.0245	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	361	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	324	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-19

Location Code: WMWGORAP
Collected: 2/8/21 10:08
Customer ID:
Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02882

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	358	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	3.14	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 11:36	2/11/21 11:36		1	6.00	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:02	2/11/21 14:02		1	0.319	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:43	2/10/21 13:43		1	16.2	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/8/21 10:06	2/8/21 10:06			520.81	uS/cm			FA
pH	2/8/21 10:06	2/8/21 10:06			7.89	SU			FA
Temperature	2/8/21 10:06	2/8/21 10:06			16.08	C			FA
Turbidity	2/8/21 10:06	2/8/21 10:06			0.07	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 10:08

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: BB02882

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 10:08

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: BB02882

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec		Prec	Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit				
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75		107	80.0 to 120		1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0		89.4	80.0 to 120		4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0		97.6	80.0 to 120		1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0					0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0					1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-19 DUP

Location Code: WMWGORAP
Collected: 2/8/21 10:08
Customer ID:
Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02883

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:31		1.015	0.0342	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 14:14		10.15	52.3	mg/L	0.70035	4.06	
* Iron, Total	2/17/21 14:44	2/18/21 12:31		1.015	0.407	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 12:31		1.015	0.0383	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:31		1.015	15.7	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 14:14		10.15	45.4	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 10:59		1.015	0.405	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 09:55		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 09:55		1.015	0.00202	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 09:55		1.015	0.361	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 09:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 09:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 09:55		1.015	0.000238	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 09:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 09:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 09:55		1.015	0.00385	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 09:55		1.015	2.19	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 09:55		1.015	0.0243	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 09:55		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 09:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:17		1.015	0.0251	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	331	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	319	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-19 DUP

Location Code: WMWGORAP
Collected: 2/8/21 10:08
Customer ID:
Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02883

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	329	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	1.74	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 11:37	2/11/21 11:37		1	5.93	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:03	2/11/21 14:03		1	0.306	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:44	2/10/21 13:44		1	16.1	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/8/21 10:06	2/8/21 10:06			520.81	uS/cm			FA
pH	2/8/21 10:06	2/8/21 10:06			7.89	SU			FA
Temperature	2/8/21 10:06	2/8/21 10:06			16.08	C			FA
Turbidity	2/8/21 10:06	2/8/21 10:06			0.07	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 10:08

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-19 DUP

Laboratory ID Number: BB02883

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 10:08

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-19 DUP

Laboratory ID Number: BB02883

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0	97.6	80.0 to 120	1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0			0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75	107	80.0 to 120	1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0	89.4	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.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-18

Location Code: WMWGORAP
Collected: 2/8/21 12:57
Customer ID:
Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02884

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:35		1.015	0.546	mg/L	0.030000	0.1015	
* Calcium, Total	2/17/21 14:44	2/18/21 14:17		10.15	45.6	mg/L	0.70035	4.06	
* Iron, Total	2/17/21 14:44	2/18/21 12:35		1.015	0.458	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 12:35		1.015	0.108	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:35		1.015	11.1	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 14:17		10.15	92.5	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:03		1.015	0.305	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 09:58		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 09:58		1.015	0.00826	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 09:58		1.015	0.126	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 09:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 09:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 09:58		1.015	0.000296	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 09:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 09:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 09:58		1.015	0.0330	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 09:58		1.015	1.91	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 09:58		1.015	0.140	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 09:58		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 09:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:20		1.015	0.135	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	264	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	384	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-18

Location Code: WMWGORAP
Collected: 2/8/21 12:57
Customer ID:
Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02884

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	51.5	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	193	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 11:38	2/11/21 11:38		1	5.48	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:04	2/11/21 14:04		1	0.485	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:45	2/10/21 13:45		4	72.6	mg/L	2.00	4	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/8/21 12:54	2/8/21 12:54			608.11	uS/cm			FA
pH	2/8/21 12:54	2/8/21 12:54			7.49	SU			FA
Temperature	2/8/21 12:54	2/8/21 12:54			16.58	C			FA
Turbidity	2/8/21 12:54	2/8/21 12:54			1.48	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 12:57

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: BB02884

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 12:57

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: BB02884

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec		Prec	Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit				
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75		107	80.0 to 120		1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0		89.4	80.0 to 120		4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0		97.6	80.0 to 120		1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0					0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0					1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-21

Location Code: WMWGORAP
Collected: 2/8/21 15:03
Customer ID:
Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02885

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:38		1.015	0.0991	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 12:38		1.015	1.95	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 12:38		1.015	0.00825	mg/L	0.008120	0.0406	J
* Lithium, Total	2/17/21 14:44	2/18/21 12:38		1.015	0.239	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:38		1.015	0.295	mg/L	0.021315	0.406	J
* Sodium, Total	2/17/21 14:44	2/18/21 14:20		101.5	260	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:06		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:01		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:01		1.015	0.000624	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:01		1.015	0.151	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:01		1.015	0.000705	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 10:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:01		1.015	0.0396	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:01		1.015	4.99	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:01		1.015	0.000297	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:01		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:23		1.015	0.000291	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	272	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	684	mg/L		50	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-21

Location Code: WMWGORAP

Collected: 2/8/21 15:03

Customer ID:

Submittal Date: 2/10/21 09:56

Laboratory ID Number: BB02885

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	270	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	2.26	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:00	2/11/21 12:00		3	39.8	mg/L	1.50	3	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:05	2/11/21 14:05		1	0.203	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:46	2/10/21 13:46		16	232	mg/L	8.00	16	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/8/21 15:00	2/8/21 15:00			1177.68	uS/cm			FA
pH	2/8/21 15:00	2/8/21 15:00			10.69	SU			FA
Temperature	2/8/21 15:00	2/8/21 15:00			18.06	C			FA
Turbidity	2/8/21 15:00	2/8/21 15:00			0.59	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 15:03

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: BB02885

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 15:03

Customer ID:

Delivery Date: 2/10/21 09:56

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: BB02885

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75	107	80.0 to 120	1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0	89.4	80.0 to 120	4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0	97.6	80.0 to 120	1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0			0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond Equipment Blank-1

Location Code: WMWGORAPEB
Collected: 2/8/21 16:05
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02886

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:42		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/17/21 14:44	2/18/21 12:42		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/17/21 14:44	2/18/21 12:42		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/17/21 14:44	2/18/21 12:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/17/21 14:44	2/18/21 12:42		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/17/21 14:44	2/18/21 12:42		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:38		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	2/11/21 11:41	2/11/21 11:41		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	2/11/21 14:06	2/11/21 14:06		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	2/10/21 13:48	2/10/21 13:48		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 2/8/21 16:05

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB02886

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 2/8/21 16:05

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB02886

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75	107	80.0 to 120	1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0	89.4	80.0 to 120	4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0	97.6	80.0 to 120	1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0			0.281	5.00

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-21V

Location Code: WMWGORAP
Collected: 2/9/21 11:22
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02887

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:45		1.015	0.114	mg/L	0.030000	0.1015	
* Calcium, Total	2/17/21 14:44	2/18/21 14:24		101.5	73.8	mg/L	7.0035	40.6	
* Iron, Total	2/17/21 14:44	2/18/21 12:45		1.015	0.0712	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 12:45		1.015	0.124	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:45		1.015	14.7	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 14:24		101.5	678	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:09		1.015	0.0367	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:06		1.015	0.000661	mg/L	0.000507	0.001015	J
* Arsenic, Total	2/11/21 15:57	2/12/21 10:06		1.015	0.00630	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:06		1.015	0.0280	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:06		1.015	0.000218	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:06		1.015	0.0983	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 18:29		5.075	115	mg/L	0.847525	2.5375	
* Manganese, Total	2/11/21 15:57	2/12/21 10:06		1.015	0.0214	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:06		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:25		1.015	0.0211	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	232	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	2250	mg/L		208.3	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-21V

Location Code: WMWGORAP

Collected: 2/9/21 11:22

Customer ID:

Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02887

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	231	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	1.22	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:01	2/11/21 12:01		80	592	mg/L	40.00	80	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:08	2/11/21 14:08		1	0.546	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:57	2/10/21 13:57		32	645	mg/L	16.00	32	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/9/21 11:18	2/9/21 11:18			3767.05	uS/cm			FA
pH	2/9/21 11:18	2/9/21 11:18			7.87	SU			FA
Temperature	2/9/21 11:18	2/9/21 11:18			17.66	C			FA
Turbidity	2/9/21 11:18	2/9/21 11:18			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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 11:22

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-21V

Laboratory ID Number: BB02887

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 11:22

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-21V

Laboratory ID Number: BB02887

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75	107	80.0 to 120	1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0	89.4	80.0 to 120	4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0	97.6	80.0 to 120	1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0			0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-15

Location Code: WMWGORAP
Collected: 2/9/21 13:35
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02888

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:48		1.015	0.0521	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 12:48		1.015	4.38	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 12:48		1.015	0.0647	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 12:48		1.015	0.493	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:48		1.015	0.266	mg/L	0.021315	0.406	J
* Sodium, Total	2/17/21 14:44	2/18/21 14:27		101.5	245	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:13		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:09		1.015	0.000750	mg/L	0.000507	0.001015	J
* Arsenic, Total	2/11/21 15:57	2/12/21 10:09		1.015	0.0145	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:09		1.015	0.132	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:09		1.015	0.000720	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 10:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:09		1.015	0.0000874	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:09		1.015	0.0644	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:09		1.015	9.86	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:09		1.015	0.000829	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:09		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	725	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	616	mg/L		100	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-15

Location Code: WMWGORAP
Collected: 2/9/21 13:35
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02888

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	2.55	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	234	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 11:43	2/11/21 11:43		1	6.12	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:09	2/11/21 14:09		1	0.591	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:50	2/10/21 13:50		1	10.6	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/9/21 13:33	2/9/21 13:33			1942.55	uS/cm			FA
pH	2/9/21 13:33	2/9/21 13:33			11.88	SU			FA
Temperature	2/9/21 13:33	2/9/21 13:33			17.38	C			FA
Turbidity	2/9/21 13:33	2/9/21 13:33			0.62	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 13:35

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: BB02888

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 13:35

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: BB02888

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec			Prec Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit	Prec			
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75		107	80.0 to 120		1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0		89.4	80.0 to 120		4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0		97.6	80.0 to 120		1.41	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0					0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0					1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-15V

Location Code: WMWGORAP
Collected: 2/9/21 15:05
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02889

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:52		1.015	0.0722	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 12:52		1.015	10.0	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 12:52		1.015	0.0478	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 12:52		1.015	0.122	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:52		1.015	4.62	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 14:31		101.5	376	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:16		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:12		1.015	0.00237	mg/L	0.000507	0.001015	
* Arsenic, Total	2/11/21 15:57	2/12/21 10:12		1.015	0.0165	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:12		1.015	0.200	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:12		1.015	0.00142	mg/L	0.000203	0.001015	
* Cobalt, Total	2/11/21 15:57	2/12/21 10:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:12		1.015	0.0522	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:12		1.015	21.7	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:12		1.015	0.00146	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:12		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:30		1.015	0.000238	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	186	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	1040	mg/L		100	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-15V

Location Code: WMWGORAP
Collected: 2/9/21 15:05
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02889

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	134	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	50.1	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:02	2/11/21 12:02		40	197	mg/L	20.00	40	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:10	2/11/21 14:10		1	0.329	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:51	2/10/21 13:51		20	350	mg/L	10.00	20	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/9/21 15:01	2/9/21 15:01			1811.73	uS/cm			FA
pH	2/9/21 15:01	2/9/21 15:01			9.55	SU			FA
Temperature	2/9/21 15:01	2/9/21 15:01			17.26	C			FA
Turbidity	2/9/21 15:01	2/9/21 15:01			1.73	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 15:05

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-15V

Laboratory ID Number: BB02889

Sample	Analysis	Units	MB				Standard		Rec			Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit			Prec
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Lead, Total	mg/L	0.000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 15:05

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-15V

Laboratory ID Number: BB02889

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec		Prec	Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit				
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75		107	80.0 to 120		1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0		89.4	80.0 to 120		4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0		97.6	80.0 to 120		1.41	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0					0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0					1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-41HS

Location Code: WMWGORAP
Collected: 2/8/21 12:30
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02890

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:55		1.015	1.06	mg/L	0.030000	0.1015	
* Calcium, Total	2/17/21 14:44	2/18/21 14:34		10.15	49.8	mg/L	0.70035	4.06	
* Iron, Total	2/17/21 14:44	2/18/21 12:55		1.015	0.775	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 12:55		1.015	0.140	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:55		1.015	22.9	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 12:55		1.015	25.1	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:20		1.015	0.634	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:14		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:14		1.015	0.000551	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:14		1.015	0.0544	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:14		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:14		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:14		1.015	0.00175	mg/L	0.000068	0.000203	
* Lead, Total	2/11/21 15:57	2/12/21 10:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:14		1.015	0.00288	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:14		1.015	2.12	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:14		1.015	0.268	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:14		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:33		1.015	0.263	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	120	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	317	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-41HS

Location Code: WMWGORAP
Collected: 2/8/21 12:30
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02890

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	120	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.09	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 11:46	2/11/21 11:46		1	9.18	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:11	2/11/21 14:11		1	0.152	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:52	2/10/21 13:52		5	95.1	mg/L	2.50	5	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/8/21 12:27	2/8/21 12:27			507.42	uS/cm			FA
pH	2/8/21 12:27	2/8/21 12:27			6.77	SU			FA
Temperature	2/8/21 12:27	2/8/21 12:27			16.20	C			FA
Turbidity	2/8/21 12:27	2/8/21 12:27			0.49	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 12:30

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-41HS

Laboratory ID Number: BB02890

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Lead, Total	mg/L	0.000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 12:30

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-41HS

Laboratory ID Number: BB02890

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75	107	80.0 to 120	1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0	89.4	80.0 to 120	4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0	97.6	80.0 to 120	1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0			0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-41HD

Location Code: WMWGORAP
Collected: 2/8/21 14:00
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02891

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 12:58		1.015	1.48	mg/L	0.030000	0.1015	
* Calcium, Total	2/17/21 14:44	2/18/21 14:37		10.15	60.8	mg/L	0.70035	4.06	
* Iron, Total	2/17/21 14:44	2/18/21 12:58		1.015	0.0276	mg/L	0.008120	0.0406	J
* Lithium, Total	2/17/21 14:44	2/18/21 12:58		1.015	0.356	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 12:58		1.015	18.7	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 12:58		1.015	19.2	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:23		1.015	0.0145	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:17		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:17		1.015	0.00148	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:17		1.015	0.0434	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:17		1.015	0.000235	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 10:17		1.015	0.000585	mg/L	0.000068	0.000203	
* Lead, Total	2/11/21 15:57	2/12/21 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:17		1.015	0.0284	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:17		1.015	1.71	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:17		1.015	0.489	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:17		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:36		1.015	0.485	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 12:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	157	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	326	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-41HD

Location Code: WMWGORAP
Collected: 2/8/21 14:00
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02891

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	157	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.46	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 11:47	2/11/21 11:47		1	6.44	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:12	2/11/21 14:12		1	0.138	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:53	2/10/21 13:53		8	111	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/8/21 13:58	2/8/21 13:58			514.10	uS/cm			FA
pH	2/8/21 13:58	2/8/21 13:58			7.36	SU			FA
Temperature	2/8/21 13:58	2/8/21 13:58			15.31	C			FA
Turbidity	2/8/21 13:58	2/8/21 13:58			0.09	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 14:00

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-41HD

Laboratory ID Number: BB02891

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB02891	Calcium, Total	mg/L	0.00308	0.152	5.00	64.4	67.0	5.29	4.25 to 5.75	72.0	70.0 to 130	3.96	20.0
BB02891	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	23.6	23.9	5.20	4.25 to 5.75	98.0	70.0 to 130	1.26	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB02891	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0996	0.103	0.101	0.0850 to 0.115	99.0	70.0 to 130	3.36	20.0
BB02891	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.111	0.114	0.108	0.0850 to 0.115	111	70.0 to 130	2.67	20.0
BB02891	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.108	0.111	0.107	0.0850 to 0.115	107	70.0 to 130	2.74	20.0
BB02891	Boron, Total	mg/L	0.00190	0.0650	1.00	2.50	2.52	1.03	0.850 to 1.15	102	70.0 to 130	0.797	20.0
BB02891	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB02891	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.585	0.587	0.201	0.170 to 0.230	114	70.0 to 130	0.341	20.0
BB02891	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.127	0.127	0.0994	0.0850 to 0.115	98.6	70.0 to 130	0.00	20.0
BB02891	Sodium, Total	mg/L	0.000878	0.0440	5.00	24.8	24.9	4.91	4.25 to 5.75	112	70.0 to 130	0.402	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB02891	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0990	0.0988	0.0990	0.0850 to 0.115	99.0	70.0 to 130	0.202	20.0
BB02891	Mercury, Total by CVAA	mg/L	0.0000373	0.000500	0.004	0.00399	0.00384	0.00427	0.00340 to 0.00460	99.8	70.0 to 130	3.83	20.0
BB02891	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.570	0.588	0.0999	0.0850 to 0.115	81.0	70.0 to 130	3.11	20.0
BB02891	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0975	0.0995	0.0942	0.0850 to 0.115	97.5	70.0 to 130	2.03	20.0
BB02891	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.105	0.110	0.108	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BB02891	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0987	0.102	0.108	0.0850 to 0.115	98.7	70.0 to 130	3.29	20.0
BB02891	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.143	0.147	0.0996	0.0850 to 0.115	99.6	70.0 to 130	2.76	20.0
BB02891	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.0968	0.0972	0.0929	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02891	Iron, Total	mg/L	0.000696	0.0176	0.2	0.235	0.234	0.211	0.170 to 0.230	104	70.0 to 130	0.426	20.0
BB02891	Potassium, Total	mg/L	0.0155	0.367	10.0	11.8	12.3	10.1	8.50 to 11.5	101	70.0 to 130	4.15	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 14:00

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-41HD

Laboratory ID Number: BB02891

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec		Prec	Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit				
BB02891	Fluoride	mg/L	0.000495	0.0500	2.50	2.81	0.136	2.59	2.25 to 2.75		107	80.0 to 120		1.46	20.0
BB02891	Sulfate	mg/L	-0.290	0.500	160	254	106	18.5	18.0 to 22.0		89.4	80.0 to 120		4.61	20.0
BB02891	Chloride	mg/L	-0.0855	0.500	10.0	16.2	6.35	9.83	9.00 to 11.0		97.6	80.0 to 120		1.41	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0					0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0					1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-41HD DUP

Location Code: WMWGORAP
Collected: 2/8/21 14:00
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02892

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:15		1.015	1.48	mg/L	0.030000	0.1015	
* Calcium, Total	2/17/21 14:44	2/19/21 13:57		10.15	60.0	mg/L	0.70035	4.06	
* Iron, Total	2/17/21 14:44	2/18/21 13:15		1.015	0.0238	mg/L	0.008120	0.0406	J
* Lithium, Total	2/17/21 14:44	2/18/21 13:15		1.015	0.356	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:15		1.015	18.8	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 13:15		1.015	19.1	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:26		1.015	0.0130	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:33		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:33		1.015	0.00164	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:33		1.015	0.0438	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:33		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:33		1.015	0.000566	mg/L	0.000068	0.000203	
* Lead, Total	2/11/21 15:57	2/12/21 10:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:33		1.015	0.0268	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:33		1.015	1.71	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:33		1.015	0.467	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:33		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:38		1.015	0.484	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB		Preparation Method: EPA 1638				
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG		Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	136	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: TJW		Preparation Method: EPA 1638				
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	321	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-41HD DUP

Location Code: WMWGORAP
Collected: 2/8/21 14:00
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02892

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	136	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.41	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:36	2/11/21 12:36		1	6.38	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:25	2/11/21 14:25		1	0.140	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 14:10	2/10/21 14:10		8	111	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/8/21 13:58	2/8/21 13:58			514.10	uS/cm			FA
pH	2/8/21 13:58	2/8/21 13:58			7.36	SU			FA
Temperature	2/8/21 13:58	2/8/21 13:58			15.31	C			FA
Turbidity	2/8/21 13:58	2/8/21 13:58			0.09	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 14:00

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-41HD DUP

Laboratory ID Number: BB02892

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB02892	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.574	0.568	0.0989	0.0850 to 0.115	90.0	70.0 to 130	1.05	20.0
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB02892	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.215	0.213	0.205	0.170 to 0.230	101	70.0 to 130	0.935	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/8/21 14:00

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-41HD DUP

Laboratory ID Number: BB02892

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB02894	Sulfate	mg/L	-0.350	0.500	20.0	23.7	5.80	18.6	18.0 to 22.0	89.7	80.0 to 120	0.692	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0			0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-38H

Location Code: WMWGORAP
Collected: 2/9/21 10:22
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02893

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:19		1.015	0.0504	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 13:19		1.015	10.6	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 13:19		1.015	0.132	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 13:19		1.015	0.0676	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:19		1.015	3.32	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/19/21 15:42		10.15	110	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:43		1.015	0.0742	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:35		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:35		1.015	0.00260	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:35		1.015	0.356	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:35		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:35		1.015	0.0000823	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:35		1.015	0.00267	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:35		1.015	4.93	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:35		1.015	0.0394	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:35		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:54		1.015	0.0400	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	237	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/10/21 11:20	2/12/21 08:30		1	355	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-38H

Location Code: WMWGORAP
Collected: 2/9/21 10:22
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02893

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	234	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	2.53	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:37	2/11/21 12:37		2	28.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:26	2/11/21 14:26		1	0.243	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 14:11	2/10/21 14:11		1	27.0	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/9/21 10:20	2/9/21 10:20			654.47	uS/cm			FA
pH	2/9/21 10:20	2/9/21 10:20			8.06	SU			FA
Temperature	2/9/21 10:20	2/9/21 10:20			17.12	C			FA
Turbidity	2/9/21 10:20	2/9/21 10:20			0.74	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 10:22

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-38H

Laboratory ID Number: BB02893

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 10:22

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-38H

Laboratory ID Number: BB02893

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB02894	Sulfate	mg/L	-0.350	0.500	20.0	23.7	5.80	18.6	18.0 to 22.0	89.7	80.0 to 120	0.692	20.0
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB02893	Solids, Dissolved	mg/L	1.00	25.0			357	52.0	40.0 to 60.0			0.281	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-26H

Location Code: WMWGORAP
Collected: 2/9/21 12:52
Customer ID:
Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02894

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:22		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/17/21 14:44	2/18/21 13:22		1.015	28.1	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 13:22		1.015	1.05	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 13:22		1.015	0.0928	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:22		1.015	11.8	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/19/21 15:46		10.15	58.7	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:47		1.015	0.956	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:38		1.015	0.000192	mg/L	0.000068	0.000203	J
* Barium, Total	2/11/21 15:57	2/12/21 10:38		1.015	0.775	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:38		1.015	0.000207	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:38		1.015	2.61	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:38		1.015	0.0186	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:57		1.015	0.0169	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	271	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	280	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-26H

Location Code: WMWGORAP

Collected: 2/9/21 12:52

Customer ID:

Submittal Date: 2/10/21 09:57

Laboratory ID Number: BB02894

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	270	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.61	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:38	2/11/21 12:38		1	2.55	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:28	2/11/21 14:28		1	0.112	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 14:12	2/10/21 14:12		1	5.76	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/9/21 12:49	2/9/21 12:49			462.49	uS/cm			FA
pH	2/9/21 12:49	2/9/21 12:49			7.38	SU			FA
Temperature	2/9/21 12:49	2/9/21 12:49			17.90	C			FA
Turbidity	2/9/21 12:49	2/9/21 12:49			2.36	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 12:52

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-26H

Laboratory ID Number: BB02894

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/9/21 12:52

Customer ID:

Delivery Date: 2/10/21 09:57

Description: Gorgas Ash Pond - MW-26H

Laboratory ID Number: BB02894

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB02894	Sulfate	mg/L	-0.350	0.500	20.0	23.7	5.80	18.6	18.0 to 22.0	89.7	80.0 to 120	0.692	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-25HA

Location Code: WMWGORAP
Collected: 2/10/21 11:19
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03088

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:25		1.015	0.147	mg/L	0.030000	0.1015	
* Calcium, Total	2/17/21 14:44	2/18/21 13:25		1.015	2.11	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 13:25		1.015	0.0638	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 13:25		1.015	0.0579	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:25		1.015	0.712	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/19/21 15:49		101.5	293	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:50		1.015	0.0173	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:40		1.015	0.00923	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:40		1.015	0.208	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:40		1.015	0.0158	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:40		1.015	1.34	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:40		1.015	0.00849	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 11:59		1.015	0.00776	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	606	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	887	mg/L		83.3	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-25HA

Location Code: WMWGORAP
Collected: 2/10/21 11:19
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03088

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	572	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	33.9	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:39	2/11/21 12:39		4	43.7	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:29	2/11/21 14:29		1	1.81	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/12/21 13:37	2/12/21 13:37		10	171	mg/L	5.00	10	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/10/21 11:16	2/10/21 11:16			1559.00	uS/cm			FA
pH	2/10/21 11:16	2/10/21 11:16			8.77	SU			FA
Temperature	2/10/21 11:16	2/10/21 11:16			16.98	C			FA
Turbidity	2/10/21 11:16	2/10/21 11:16			1.66	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 11:19

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-25HA

Laboratory ID Number: BB03088

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 11:19

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-25HA

Laboratory ID Number: BB03088

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB03094	Sulfate	mg/L	-0.580	0.500	20.0	19.3	-0.615	19.7	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - PZ-18

Location Code: WMWGORAP
Collected: 2/10/21 13:52
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03089

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:29		1.015	0.0701	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 13:29		1.015	40.5	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/19/21 14:10		101.5	22.8	mg/L	0.8120	4.06	
* Lithium, Total	2/17/21 14:44	2/18/21 13:29		1.015	0.120	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:29		1.015	14.2	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/19/21 15:53		101.5	184	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 13:07		10.15	17.0	mg/L	0.08120	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:43		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:43		1.015	0.0160	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:43		1.015	0.0405	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:43		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:43		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:43		1.015	0.00443	mg/L	0.000068	0.000203	
* Lead, Total	2/11/21 15:57	2/12/21 10:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:43		1.015	0.00511	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:43		1.015	2.74	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:43		1.015	0.238	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:43		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 12:02		1.015	0.232	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	278	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	787	mg/L		83.3	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - PZ-18

Location Code: WMWGORAP

Collected: 2/10/21 13:52

Customer ID:

Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03089

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	278	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.34	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:40	2/11/21 12:40		1	3.20	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:30	2/11/21 14:30		1	0.368	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/12/21 13:38	2/12/21 13:38		25	390	mg/L	12.50	25	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/10/21 13:50	2/10/21 13:50			1316.34	uS/cm			FA
pH	2/10/21 13:50	2/10/21 13:50			6.90	SU			FA
Temperature	2/10/21 13:50	2/10/21 13:50			17.76	C			FA
Turbidity	2/10/21 13:50	2/10/21 13:50			1.22	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 13:52

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - PZ-18

Laboratory ID Number: BB03089

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 13:52

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - PZ-18

Laboratory ID Number: BB03089

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0
BB03094	Sulfate	mg/L	-0.580	0.500	20.0	19.3	-0.615	19.7	18.0 to 22.0	96.5	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.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-32H

Location Code: WMWGORAP
Collected: 2/10/21 15:23
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03090

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:32		1.015	0.0477	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 13:32		1.015	3.24	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 13:32		1.015	0.0604	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 13:32		1.015	0.0471	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:32		1.015	0.581	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/19/21 15:56		10.15	124	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 11:57		1.015	0.0345	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:46		1.015	0.000838	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:46		1.015	0.0511	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:46		1.015	0.0889	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:46		1.015	3.26	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:46		1.015	0.00711	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 12:05		1.015	0.00646	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	279	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	379	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-32H

Location Code: WMWGORAP
Collected: 2/10/21 15:23
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03090

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	271	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	7.36	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:42	2/11/21 12:42		4	39.4	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:31	2/11/21 14:31		1	0.134	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/12/21 13:40	2/12/21 13:40		2	50.8	mg/L	1.00	2	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/10/21 15:21	2/10/21 15:21			662.54	uS/cm			FA
pH	2/10/21 15:21	2/10/21 15:21			8.03	SU			FA
Temperature	2/10/21 15:21	2/10/21 15:21			17.65	C			FA
Turbidity	2/10/21 15:21	2/10/21 15:21			1.46	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 15:23

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-32H

Laboratory ID Number: BB03090

Sample	Analysis	Units	MB				Standard			Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 15:23

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-32H

Laboratory ID Number: BB03090

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03094	Sulfate	mg/L	-0.580	0.500	20.0	19.3	-0.615	19.7	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-16S

Location Code: WMWGORAP
Collected: 2/10/21 13:07
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03091

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:36		1.015	0.0762	mg/L	0.030000	0.1015	J
* Calcium, Total	2/17/21 14:44	2/18/21 13:36		1.015	15.7	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 13:36		1.015	0.108	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 13:36		1.015	0.103	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:36		1.015	0.0451	mg/L	0.021315	0.406	J
* Sodium, Total	2/17/21 14:44	2/19/21 15:59		10.15	131	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 12:00		1.015	0.0364	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:48		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:48		1.015	0.00173	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:48		1.015	0.0976	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:48		1.015	0.000246	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/11/21 15:57	2/12/21 10:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:48		1.015	0.000105	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:48		1.015	0.0402	mg/L	0.000068	0.000203	
* Potassium, Total	2/11/21 15:57	2/12/21 10:48		1.015	2.17	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:48		1.015	0.000820	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:48		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 12:07		1.015	0.000308	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	489	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	402	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-16S

Location Code: WMWGORAP

Collected: 2/10/21 13:07

Customer ID:

Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03091

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	185	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	295	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:43	2/11/21 12:43		1	6.17	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:32	2/11/21 14:32		1	0.529	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/12/21 13:41	2/12/21 13:41		1	3.84	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/10/21 13:04	2/10/21 13:04			810.05	uS/cm			FA
pH	2/10/21 13:04	2/10/21 13:04			10.37	SU			FA
Temperature	2/10/21 13:04	2/10/21 13:04			17.63	C			FA
Turbidity	2/10/21 13:04	2/10/21 13:04			3.07	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 13:07

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-16S

Laboratory ID Number: BB03091

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 13:07

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-16S

Laboratory ID Number: BB03091

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03094	Sulfate	mg/L	-0.580	0.500	20.0	19.3	-0.615	19.7	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-16D

Location Code: WMWGORAP
Collected: 2/10/21 15:50
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03092

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:39		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/17/21 14:44	2/18/21 13:39		1.015	34.6	mg/L	0.070035	0.406	
* Iron, Total	2/17/21 14:44	2/18/21 13:39		1.015	1.83	mg/L	0.008120	0.0406	
* Lithium, Total	2/17/21 14:44	2/18/21 13:39		1.015	0.0376	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/17/21 14:44	2/18/21 13:39		1.015	12.8	mg/L	0.021315	0.406	
* Sodium, Total	2/17/21 14:44	2/18/21 13:39		1.015	30.9	mg/L	0.02030	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/17/21 15:30	2/19/21 12:03		1.015	0.184	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:51		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:51		1.015	0.000491	mg/L	0.000068	0.000203	
* Barium, Total	2/11/21 15:57	2/12/21 10:51		1.015	0.356	mg/L	0.000101	0.000203	
* Beryllium, Total	2/11/21 15:57	2/12/21 10:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:51		1.015	0.00107	mg/L	0.000203	0.001015	
* Cobalt, Total	2/11/21 15:57	2/12/21 10:51		1.015	0.000252	mg/L	0.000068	0.000203	
* Lead, Total	2/11/21 15:57	2/12/21 10:51		1.015	0.000873	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:51		1.015	0.000140	mg/L	0.000068	0.000203	J
* Potassium, Total	2/11/21 15:57	2/12/21 10:51		1.015	1.59	mg/L	0.169505	0.5075	
* Manganese, Total	2/11/21 15:57	2/12/21 10:51		1.015	0.0166	mg/L	0.000068	0.000203	
* Selenium, Total	2/11/21 15:57	2/12/21 10:51		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/12/21 09:22	2/12/21 12:10		1.015	0.0123	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 11:07	2/11/21 12:30		1	230	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	224	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-16D

Location Code: WMWGORAP
Collected: 2/10/21 15:50
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03092

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	229	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 11:07	2/11/21 12:30		1	0.94	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:44	2/11/21 12:44		1	3.19	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:34	2/11/21 14:34		1	0.103	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/12/21 13:42	2/12/21 13:42		1	15.8	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/10/21 15:46	2/10/21 15:46			384.90	uS/cm			FA
pH	2/10/21 15:46	2/10/21 15:46			7.73	SU			FA
Temperature	2/10/21 15:46	2/10/21 15:46			16.61	C			FA
Turbidity	2/10/21 15:46	2/10/21 15:46			27.2	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 15:50

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: BB03092

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 15:50

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: BB03092

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03094	Sulfate	mg/L	-0.580	0.500	20.0	19.3	-0.615	19.7	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00
BB03092	Alkalinity, Total as CaCO3	mg/L					227	51.9	45.0 to 55.0			1.31	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-16D DIS

Location Code: WMWGORAP
Collected: 2/10/21 15:50
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03093

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	2/17/21 15:30	2/19/21 12:07		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	2/17/21 15:30	2/19/21 12:07		1.015	33.3	mg/L	0.070035	0.406	
* Iron, Dissolved	2/17/21 15:30	2/19/21 12:07		1.015	0.177	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/17/21 15:30	2/19/21 12:07		1.015	0.0356	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/17/21 15:30	2/19/21 12:07		1.015	12.3	mg/L	0.021315	0.406	
* Sodium, Dissolved	2/17/21 15:30	2/23/21 11:23		1.015	30.9	mg/L	0.02030	0.406	RA
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	0.355	mg/L	0.000101	0.000203	
* Beryllium, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	0.000107	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	0.0127	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	1.60	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Dissolved	2/12/21 09:22	2/12/21 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Dissolved by CVAA	2/18/21 10:21	2/18/21 13:19		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/22/21 13:34	2/22/21 14:07		1	163	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	212	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	162	mg/L			
Carbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	0.75	mg/L			

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-16D DIS

Location Code: WMWGORAP
Collected: 2/10/21 15:50
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03093

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/11/21 12:45	2/11/21 12:45		1	3.11	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/11/21 14:35	2/11/21 14:35		1	0.107	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/12/21 13:43	2/12/21 13:43		1	14.0	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/10/21 15:46	2/10/21 15:46			384.90	uS/cm			FA
pH	2/10/21 15:46	2/10/21 15:46			7.73	SU			FA
Temperature	2/10/21 15:46	2/10/21 15:46			16.61	C			FA
Turbidity	2/10/21 15:46	2/10/21 15:46			27.2	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 15:50

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-16D DIS

Laboratory ID Number: BB03093

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit		
BB03093	Molybdenum, Dissolved	mg/L	0.0000000	0.000147	0.10	0.0993	0.101	0.102	0.0850 to 0.115	99.2	70.0 to 130	1.70	20.0	
BB03093	Thallium, Dissolved	mg/L	-0.0000639	0.000147	0.10	0.114	0.115	0.114	0.0850 to 0.115	114	70.0 to 130	0.873	20.0	
BB03093	Barium, Dissolved	mg/L	-0.0000088	0.000200	0.10	0.450	0.453	0.101	0.0850 to 0.115	95.0	70.0 to 130	0.664	20.0	
BB03093	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.10	0.101	0.0995	0.0985	0.0850 to 0.115	101	70.0 to 130	1.50	20.0	
BB03093	Manganese, Dissolved	mg/L	0.0000012	0.000147	0.10	0.110	0.111	0.0989	0.0850 to 0.115	97.3	70.0 to 130	0.905	20.0	
BB03093	Mercury, Dissolved by	mg/L	0.0000237	0.000500	0.004	0.00431	0.00426	0.00429	0.00340 to 0.00460	108	70.0 to 130	1.17	20.0	
BB03093	Lithium, Dissolved	mg/L	0.0000418	0.0154	0.20	0.251	0.245	0.202	0.170 to 0.230	108	70.0 to 130	2.42	20.0	
BB03093	Magnesium, Dissolved	mg/L	0.00124	0.0462	5.00	17.4	17.3	5.17	4.25 to 5.75	102	70.0 to 130	0.576	20.0	
BB03093	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.10	0.104	0.102	0.106	0.0850 to 0.115	104	70.0 to 130	1.94	20.0	
BB03093	Calcium, Dissolved	mg/L	0.000877	0.152	5.00	38.3	38.3	5.16	4.25 to 5.75	100	70.0 to 130	0.00	20.0	
BB03093	Chromium, Dissolved	mg/L	-0.000180	0.000440	0.10	0.102	0.104	0.103	0.0850 to 0.115	102	70.0 to 130	1.94	20.0	
BB03093	Iron, Dissolved	mg/L	-0.000259	0.0176	0.2	0.373	0.376	0.205	0.170 to 0.230	98.0	70.0 to 130	0.801	20.0	
BB03093	Sodium, Dissolved	mg/L	-0.000286	0.0440	5.00	34.5	34.1	5.00	4.25 to 5.75	72.0	70.0 to 130	1.17	20.0	
BB03093	Arsenic, Dissolved	mg/L	0.0000050	0.000147	0.10	0.106	0.104	0.106	0.0850 to 0.115	106	70.0 to 130	1.90	20.0	
BB03093	Cobalt, Dissolved	mg/L	-0.0000620	0.000147	0.10	0.0973	0.100	0.1000	0.0850 to 0.115	97.3	70.0 to 130	2.74	20.0	
BB03093	Potassium, Dissolved	mg/L	0.00862	0.367	10.0	12.0	12.0	10.4	8.50 to 11.5	104	70.0 to 130	0.00	20.0	
BB03093	Lead, Dissolved	mg/L	0.0000046	0.000147	0.10	0.111	0.112	0.111	0.0850 to 0.115	111	70.0 to 130	0.897	20.0	
BB03093	Selenium, Dissolved	mg/L	0.0000673	0.00100	0.10	0.0993	0.101	0.102	0.0850 to 0.115	99.3	70.0 to 130	1.70	20.0	
BB03093	Boron, Dissolved	mg/L	0.00320	0.0650	1.00	1.05	1.04	1.03	0.850 to 1.15	105	70.0 to 130	0.957	20.0	
BB03093	Antimony, Dissolved	mg/L	0.000132	0.00100	0.10	0.0982	0.0980	0.0970	0.0850 to 0.115	98.2	70.0 to 130	0.204	20.0	

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/10/21 15:50

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond - MW-16D DIS

Laboratory ID Number: BB03093

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03094	Sulfate	mg/L	-0.580	0.500	20.0	19.3	-0.615	19.7	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB03630	Alkalinity, Total as CaCO3	mg/L					347	51.1	45.0 to 55.0			1.43	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond Field Blank-4

Location Code: WMWGORAPFB
Collected: 2/10/21 17:00
Customer ID:
Submittal Date: 2/11/21 09:12

Laboratory ID Number: BB03094

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	2/17/21 14:44	2/18/21 13:42		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/17/21 14:44	2/18/21 13:42		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/17/21 14:44	2/18/21 13:42		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/17/21 14:44	2/18/21 13:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/17/21 14:44	2/18/21 13:42		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/17/21 14:44	2/18/21 13:42		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/11/21 15:57	2/12/21 10:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/12/21 15:05	2/18/21 08:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	2/11/21 12:46	2/11/21 12:46		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	2/11/21 14:36	2/11/21 14:36		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	2/12/21 13:44	2/12/21 13:44		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/10/21 17:00

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond Field Blank-4

Laboratory ID Number: BB03094

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB03094	Potassium, Total	mg/L	0.0155	0.367	10.0	10.3	10.4	10.1	8.50 to 11.5	103	70.0 to 130	0.966	20.0
BB03094	Boron, Total	mg/L	0.00190	0.0650	1.00	1.03	1.02	1.03	0.850 to 1.15	103	70.0 to 130	0.976	20.0
BB03094	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0963	0.101	0.0990	0.0850 to 0.115	96.3	70.0 to 130	4.76	20.0
BB03094	Arsenic, Total	mg/L	0.0000261	0.000147	0.10	0.106	0.104	0.107	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Chromium, Total	mg/L	-0.0000255	0.000440	0.10	0.102	0.105	0.104	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB03094	Lead, Total	mg/L	0.0000060	0.000147	0.10	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BB03094	Antimony, Total	mg/L	0.000116	0.00100	0.10	0.0998	0.0971	0.0942	0.0850 to 0.115	99.8	70.0 to 130	2.74	20.0
BB03094	Beryllium, Total	mg/L	0.0000137	0.000880	0.10	0.104	0.0995	0.0929	0.0850 to 0.115	104	70.0 to 130	4.42	20.0
BB03094	Iron, Total	mg/L	0.000696	0.0176	0.2	0.210	0.210	0.211	0.170 to 0.230	105	70.0 to 130	0.00	20.0
BB03094	Lithium, Total	mg/L	0.0000501	0.0154	0.20	0.202	0.201	0.201	0.170 to 0.230	101	70.0 to 130	0.496	20.0
BB03094	Calcium, Total	mg/L	0.00308	0.152	5.00	5.24	5.20	5.29	4.25 to 5.75	105	70.0 to 130	0.766	20.0
BB03094	Selenium, Total	mg/L	0.0000604	0.00100	0.10	0.0994	0.101	0.108	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BB03094	Thallium, Total	mg/L	-0.0000888	0.000147	0.10	0.107	0.109	0.108	0.0850 to 0.115	107	70.0 to 130	1.85	20.0
BB03094	Barium, Total	mg/L	0.0000071	0.000200	0.10	0.106	0.104	0.0996	0.0850 to 0.115	106	70.0 to 130	1.90	20.0
BB03094	Molybdenum, Total	mg/L	0.0000000	0.000147	0.10	0.0981	0.101	0.0994	0.0850 to 0.115	98.1	70.0 to 130	2.91	20.0
BB03094	Mercury, Total by CVAA	mg/L	0.0000720	0.000500	0.004	0.00434	0.00423	0.00417	0.00340 to 0.00460	108	70.0 to 130	2.57	20.0
BB03094	Magnesium, Total	mg/L	-0.00206	0.0462	5.00	5.16	5.11	5.20	4.25 to 5.75	103	70.0 to 130	0.974	20.0
BB03094	Manganese, Total	mg/L	0.0000102	0.000147	0.10	0.0983	0.100	0.0999	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BB03094	Sodium, Total	mg/L	0.000878	0.0440	5.00	4.91	4.87	4.91	4.25 to 5.75	98.2	70.0 to 130	0.818	20.0
BB03094	Cobalt, Total	mg/L	-0.0000614	0.000147	0.10	0.0991	0.103	0.101	0.0850 to 0.115	99.1	70.0 to 130	3.86	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/10/21 17:00

Customer ID:

Delivery Date: 2/11/21 09:12

Description: Gorgas Ash Pond Field Blank-4

Laboratory ID Number: BB03094

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BB03094	Sulfate	mg/L	-0.580	0.500	20.0	19.3	-0.615	19.7	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB03094	Chloride	mg/L	-0.0602	0.500	10.0	9.83	0.0125	9.82	9.00 to 11.0	98.3	80.0 to 120	0.00	20.0
BB03094	Fluoride	mg/L	-0.00874	0.0500	2.50	2.54	-0.010	2.61	2.25 to 2.75	102	80.0 to 120	0.00	20.0
BB03091	Solids, Dissolved	mg/L	-1.00	25.0			399	53.0	40.0 to 60.0			0.375	5.00

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-36H

Location Code: WMWGORAP
Collected: 2/17/21 11:27
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03625

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	3/11/21 14:53	3/12/21 13:53		1.015	0.0413	mg/L	0.030000	0.1015	J
* Calcium, Total	3/11/21 14:53	3/12/21 13:53		1.015	3.16	mg/L	0.070035	0.406	
* Iron, Total	3/11/21 14:53	3/12/21 13:53		1.015	0.115	mg/L	0.008120	0.0406	
* Lithium, Total	3/11/21 14:53	3/12/21 13:53		1.015	0.0390	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/11/21 14:53	3/12/21 13:53		1.015	0.653	mg/L	0.021315	0.406	
* Sodium, Total	3/11/21 14:53	3/12/21 15:10		101.5	105	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/19/21 10:21	2/19/21 12:30		1.015	0.0201	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/18/21 11:46	2/18/21 16:42		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/18/21 11:46	2/18/21 16:42		1.015	0.00102	mg/L	0.000068	0.000203	
* Barium, Total	2/18/21 11:46	2/18/21 16:42		1.015	0.0463	mg/L	0.000101	0.000203	
* Beryllium, Total	2/18/21 11:46	2/18/21 16:42		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/18/21 11:46	2/18/21 16:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/18/21 11:46	2/18/21 16:42		1.015	0.000271	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/18/21 11:46	2/18/21 16:42		1.015	0.000148	mg/L	0.000068	0.000203	J
* Lead, Total	2/18/21 11:46	2/18/21 16:42		1.015	0.0000880	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/18/21 11:46	2/18/21 16:42		1.015	0.00540	mg/L	0.000068	0.000203	
* Potassium, Total	2/18/21 11:46	2/18/21 16:42		1.015	4.01	mg/L	0.169505	0.5075	
* Manganese, Total	2/18/21 11:46	2/18/21 16:42		1.015	0.00769	mg/L	0.000068	0.000203	
* Selenium, Total	2/18/21 11:46	2/18/21 16:42		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/18/21 11:46	2/18/21 16:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/18/21 13:34	2/18/21 14:12		1.015	0.00653	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/22/21 13:34	2/22/21 14:07		1	200	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/22/21 15:00	2/24/21 07:45		1	292	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-36H

Location Code: WMWGORAP
Collected: 2/17/21 11:27
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03625

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	197	mg/L			
Carbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	2.87	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/18/21 11:52	2/18/21 11:52		2	24.3	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/18/21 12:43	2/18/21 12:43		1	0.220	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/23/21 14:24	2/23/21 14:24		1	28.9	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/17/21 11:25	2/17/21 11:25			429.38	uS/cm			FA
pH	2/17/21 11:25	2/17/21 11:25			8.36	SU			FA
Temperature	2/17/21 11:25	2/17/21 11:25			14.17	C			FA
Turbidity	2/17/21 11:25	2/17/21 11:25			3.5	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 11:27

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-36H

Laboratory ID Number: BB03625

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB03631	Beryllium, Total	mg/L	0.0000143	0.000880	0.10	0.0933	0.0928	0.0965	0.0850 to 0.115	93.3	70.0 to 130	0.537	20.0
BB03631	Antimony, Total	mg/L	0.000158	0.00100	0.10	0.0909	0.0932	0.0982	0.0850 to 0.115	90.9	70.0 to 130	2.50	20.0
BB03631	Cobalt, Total	mg/L	-0.0000124	0.000147	0.10	0.102	0.102	0.107	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BB03631	Lithium, Total	mg/L	-0.0000744	0.0154	0.20	0.205	0.204	0.210	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB03631	Manganese, Total	mg/L	0.0000078	0.000147	0.10	0.101	0.101	0.105	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03630	Iron, Dissolved	mg/L	-0.000255	0.0176	0.2	0.204	0.204	0.202	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BB03631	Arsenic, Total	mg/L	0.0000407	0.000147	0.10	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Cadmium, Total	mg/L	-0.0000078	0.000147	0.10	0.0991	0.0989	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.202	20.0
BB03631	Boron, Total	mg/L	-0.00165	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BB03631	Mercury, Total by CVAA	mg/L	0.0000305	0.000500	0.004	0.00426	0.00427	0.00424	0.00340 to 0.00460	106	70.0 to 130	0.234	20.0
BB03631	Lead, Total	mg/L	0.0000012	0.000147	0.10	0.0935	0.0956	0.0971	0.0850 to 0.115	93.5	70.0 to 130	2.22	20.0
BB03631	Calcium, Total	mg/L	0.000993	0.152	5.00	5.04	5.00	4.98	4.25 to 5.75	101	70.0 to 130	0.797	20.0
BB03631	Magnesium, Total	mg/L	-0.000195	0.0462	5.00	5.14	5.08	5.12	4.25 to 5.75	103	70.0 to 130	1.17	20.0
BB03631	Sodium, Total	mg/L	0.00835	0.0440	5.00	5.15	5.08	5.24	4.25 to 5.75	103	70.0 to 130	1.37	20.0
BB03631	Selenium, Total	mg/L	0.000299	0.00100	0.10	0.101	0.100	0.102	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB03631	Chromium, Total	mg/L	-0.0000128	0.000440	0.10	0.0984	0.0999	0.104	0.0850 to 0.115	98.4	70.0 to 130	1.51	20.0
BB03631	Potassium, Total	mg/L	-0.00828	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB03631	Thallium, Total	mg/L	-0.0000113	0.000147	0.10	0.0887	0.0916	0.0930	0.0850 to 0.115	88.7	70.0 to 130	3.22	20.0
BB03630	Manganese, Dissolved	mg/L	0.0000093	0.000147	0.10	0.104	0.103	0.102	0.0850 to 0.115	99.2	70.0 to 130	0.966	20.0
BB03631	Barium, Total	mg/L	-0.0000215	0.000200	0.10	0.0951	0.0976	0.101	0.0850 to 0.115	95.1	70.0 to 130	2.59	20.0
BB03631	Iron, Total	mg/L	0.000896	0.0176	0.2	0.203	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.494	20.0
BB03631	Molybdenum, Total	mg/L	0.0000229	0.000147	0.10	0.0980	0.0985	0.102	0.0850 to 0.115	98.0	70.0 to 130	0.509	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 11:27

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-36H

Laboratory ID Number: BB03625

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03631	Chloride	mg/L	-0.0578	0.500	10.0	9.72	0.0422	10.0	9.00 to 11.0	97.2	80.0 to 120	0.00	20.0
BB03630	Solids, Dissolved	mg/L	-1.00	25.0			847	51.0	40.0 to 60.0			0.353	5.00
BB03631	Sulfate	mg/L	-0.522	0.500	20.0	19.4	-0.524	19.8	18.0 to 22.0	97.0	80.0 to 120	0.00	20.0
BB03630	Alkalinity, Total as CaCO3	mg/L					347	51.1	45.0 to 55.0			1.43	10.0
BB03631	Fluoride	mg/L	0.0195	0.0500	2.50	2.73	0.0225	2.65	2.25 to 2.75	109	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.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-28H

Location Code: WMWGORAP
Collected: 2/17/21 12:50
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03626

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	3/11/21 14:53	3/12/21 13:57		1.015	0.0748	mg/L	0.030000	0.1015	J
* Calcium, Total	3/11/21 14:53	3/12/21 13:57		1.015	2.02	mg/L	0.070035	0.406	
* Iron, Total	3/11/21 14:53	3/12/21 13:57		1.015	0.144	mg/L	0.008120	0.0406	
* Lithium, Total	3/11/21 14:53	3/12/21 13:57		1.015	0.0686	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/11/21 14:53	3/12/21 13:57		1.015	0.586	mg/L	0.021315	0.406	
* Sodium, Total	3/11/21 14:53	3/12/21 15:13		101.5	183	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/19/21 10:21	2/19/21 12:34		1.015	0.0685	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/18/21 11:46	2/18/21 16:45		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/18/21 11:46	2/18/21 16:45		1.015	0.000796	mg/L	0.000068	0.000203	
* Barium, Total	2/18/21 11:46	2/18/21 16:45		1.015	0.0297	mg/L	0.000101	0.000203	
* Beryllium, Total	2/18/21 11:46	2/18/21 16:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/18/21 11:46	2/18/21 16:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/18/21 11:46	2/18/21 16:45		1.015	0.000352	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/18/21 11:46	2/18/21 16:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/18/21 11:46	2/18/21 16:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/18/21 11:46	2/18/21 16:45		1.015	0.00454	mg/L	0.000068	0.000203	
* Potassium, Total	2/18/21 11:46	2/18/21 16:45		1.015	1.44	mg/L	0.169505	0.5075	
* Manganese, Total	2/18/21 11:46	2/18/21 16:45		1.015	0.0112	mg/L	0.000068	0.000203	
* Selenium, Total	2/18/21 11:46	2/18/21 16:45		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/18/21 11:46	2/18/21 16:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/18/21 13:34	2/18/21 14:16		1.015	0.0102	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/22/21 13:34	2/22/21 14:07		1	338	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/22/21 15:00	2/24/21 07:45		1	451	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-28H

Location Code: WMWGORAP
Collected: 2/17/21 12:50
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03626

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	334	mg/L			
Carbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	4.33	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/18/21 11:46	2/18/21 11:46		1	10.3	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/18/21 12:44	2/18/21 12:44		1	0.180	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/23/21 14:25	2/23/21 14:25		1	6.39	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/17/21 12:46	2/17/21 12:46			551.88	uS/cm			FA
pH	2/17/21 12:46	2/17/21 12:46			8.31	SU			FA
Temperature	2/17/21 12:46	2/17/21 12:46			16.35	C			FA
Turbidity	2/17/21 12:46	2/17/21 12:46			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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 12:50

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-28H

Laboratory ID Number: BB03626

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
				Limit					Standard	Limit	Rec	Limit			Prec
BB03631	Antimony, Total	mg/L	0.000158	0.00100	0.10	0.0909	0.0932	0.0982	0.0850 to 0.115	90.9	70.0 to 130	2.50	20.0	
BB03631	Beryllium, Total	mg/L	0.0000143	0.000880	0.10	0.0933	0.0928	0.0965	0.0850 to 0.115	93.3	70.0 to 130	0.537	20.0	
BB03631	Chromium, Total	mg/L	-0.0000128	0.000440	0.10	0.0984	0.0999	0.104	0.0850 to 0.115	98.4	70.0 to 130	1.51	20.0	
BB03631	Potassium, Total	mg/L	-0.00828	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0	
BB03631	Thallium, Total	mg/L	-0.0000113	0.000147	0.10	0.0887	0.0916	0.0930	0.0850 to 0.115	88.7	70.0 to 130	3.22	20.0	
BB03631	Boron, Total	mg/L	-0.00165	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0	
BB03631	Mercury, Total by CVAA	mg/L	0.0000305	0.000500	0.004	0.00426	0.00427	0.00424	0.00340 to 0.00460	106	70.0 to 130	0.234	20.0	
BB03631	Lead, Total	mg/L	0.0000012	0.000147	0.10	0.0935	0.0956	0.0971	0.0850 to 0.115	93.5	70.0 to 130	2.22	20.0	
BB03631	Cobalt, Total	mg/L	-0.0000124	0.000147	0.10	0.102	0.102	0.107	0.0850 to 0.115	102	70.0 to 130	0.00	20.0	
BB03631	Lithium, Total	mg/L	-0.0000744	0.0154	0.20	0.205	0.204	0.210	0.170 to 0.230	102	70.0 to 130	0.489	20.0	
BB03631	Manganese, Total	mg/L	0.0000078	0.000147	0.10	0.101	0.101	0.105	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BB03631	Calcium, Total	mg/L	0.000993	0.152	5.00	5.04	5.00	4.98	4.25 to 5.75	101	70.0 to 130	0.797	20.0	
BB03631	Magnesium, Total	mg/L	-0.000195	0.0462	5.00	5.14	5.08	5.12	4.25 to 5.75	103	70.0 to 130	1.17	20.0	
BB03631	Sodium, Total	mg/L	0.00835	0.0440	5.00	5.15	5.08	5.24	4.25 to 5.75	103	70.0 to 130	1.37	20.0	
BB03631	Selenium, Total	mg/L	0.000299	0.00100	0.10	0.101	0.100	0.102	0.0850 to 0.115	101	70.0 to 130	0.995	20.0	
BB03630	Iron, Dissolved	mg/L	-0.000255	0.0176	0.2	0.204	0.204	0.202	0.170 to 0.230	102	70.0 to 130	0.00	20.0	
BB03631	Arsenic, Total	mg/L	0.0000407	0.000147	0.10	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0	
BB03631	Cadmium, Total	mg/L	-0.0000078	0.000147	0.10	0.0991	0.0989	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.202	20.0	
BB03630	Manganese, Dissolved	mg/L	0.0000093	0.000147	0.10	0.104	0.103	0.102	0.0850 to 0.115	99.2	70.0 to 130	0.966	20.0	
BB03631	Barium, Total	mg/L	-0.0000215	0.000200	0.10	0.0951	0.0976	0.101	0.0850 to 0.115	95.1	70.0 to 130	2.59	20.0	
BB03631	Iron, Total	mg/L	0.000896	0.0176	0.2	0.203	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.494	20.0	
BB03631	Molybdenum, Total	mg/L	0.0000229	0.000147	0.10	0.0980	0.0985	0.102	0.0850 to 0.115	98.0	70.0 to 130	0.509	20.0	

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 12:50

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-28H

Laboratory ID Number: BB03626

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03630	Solids, Dissolved	mg/L	-1.00	25.0			847	51.0	40.0 to 60.0			0.353	5.00
BB03631	Sulfate	mg/L	-0.522	0.500	20.0	19.4	-0.524	19.8	18.0 to 22.0	97.0	80.0 to 120	0.00	20.0
BB03630	Alkalinity, Total as CaCO3	mg/L					347	51.1	45.0 to 55.0			1.43	10.0
BB03631	Fluoride	mg/L	0.0195	0.0500	2.50	2.73	0.0225	2.65	2.25 to 2.75	109	80.0 to 120	0.00	20.0
BB03631	Chloride	mg/L	-0.0578	0.500	10.0	9.72	0.0422	10.0	9.00 to 11.0	97.2	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.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-30HA

Location Code: WMWGORAP
Collected: 2/17/21 14:22
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03627

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	3/11/21 14:53	3/12/21 14:00		1.015	0.0668	mg/L	0.030000	0.1015	J
* Calcium, Total	3/11/21 14:53	3/12/21 14:00		1.015	29.7	mg/L	0.070035	0.406	
* Iron, Total	3/11/21 14:53	3/12/21 14:00		1.015	2.54	mg/L	0.008120	0.0406	
* Lithium, Total	3/11/21 14:53	3/12/21 14:00		1.015	0.0548	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/11/21 14:53	3/12/21 14:00		1.015	6.48	mg/L	0.021315	0.406	
* Sodium, Total	3/11/21 14:53	3/12/21 15:17		101.5	162	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/19/21 10:21	2/19/21 12:37		1.015	2.17	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/18/21 11:46	2/18/21 16:49		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/18/21 11:46	2/18/21 16:49		1.015	0.00354	mg/L	0.000068	0.000203	
* Barium, Total	2/18/21 11:46	2/18/21 16:49		1.015	0.0890	mg/L	0.000101	0.000203	
* Beryllium, Total	2/18/21 11:46	2/18/21 16:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/18/21 11:46	2/18/21 16:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/18/21 11:46	2/18/21 16:49		1.015	0.000418	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/18/21 11:46	2/18/21 16:49		1.015	0.000160	mg/L	0.000068	0.000203	J
* Lead, Total	2/18/21 11:46	2/18/21 16:49		1.015	0.000280	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/18/21 11:46	2/18/21 16:49		1.015	0.00190	mg/L	0.000068	0.000203	
* Potassium, Total	2/18/21 11:46	2/18/21 16:49		1.015	4.23	mg/L	0.169505	0.5075	
* Manganese, Total	2/18/21 11:46	2/18/21 16:49		1.015	0.152	mg/L	0.000068	0.000203	
* Selenium, Total	2/18/21 11:46	2/18/21 16:49		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/18/21 11:46	2/18/21 16:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/18/21 13:34	2/18/21 14:19		1.015	0.153	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/22/21 13:34	2/22/21 14:07		1	291	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/22/21 15:00	2/24/21 07:45		1	534	mg/L		50	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-30HA

Location Code: WMWGORAP
Collected: 2/17/21 14:22
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03627

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07	1		290	mg/L			
Carbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07	1		0.72	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/18/21 11:47	2/18/21 11:47	1		3.69	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/18/21 12:45	2/18/21 12:45	1		0.884	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/23/21 14:35	2/23/21 14:35	8		136	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	2/17/21 14:19	2/17/21 14:19			723.03	uS/cm			FA
pH	2/17/21 14:19	2/17/21 14:19			7.29	SU			FA
Temperature	2/17/21 14:19	2/17/21 14:19			15.39	C			FA
Turbidity	2/17/21 14:19	2/17/21 14:19			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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 14:22

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-30HA

Laboratory ID Number: BB03627

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB03631	Beryllium, Total	mg/L	0.0000143	0.000880	0.10	0.0933	0.0928	0.0965	0.0850 to 0.115	93.3	70.0 to 130	0.537	20.0
BB03631	Antimony, Total	mg/L	0.000158	0.00100	0.10	0.0909	0.0932	0.0982	0.0850 to 0.115	90.9	70.0 to 130	2.50	20.0
BB03630	Iron, Dissolved	mg/L	-0.000255	0.0176	0.2	0.204	0.204	0.202	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BB03631	Arsenic, Total	mg/L	0.0000407	0.000147	0.10	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Cadmium, Total	mg/L	-0.0000078	0.000147	0.10	0.0991	0.0989	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.202	20.0
BB03631	Calcium, Total	mg/L	0.000993	0.152	5.00	5.04	5.00	4.98	4.25 to 5.75	101	70.0 to 130	0.797	20.0
BB03631	Magnesium, Total	mg/L	-0.000195	0.0462	5.00	5.14	5.08	5.12	4.25 to 5.75	103	70.0 to 130	1.17	20.0
BB03631	Sodium, Total	mg/L	0.00835	0.0440	5.00	5.15	5.08	5.24	4.25 to 5.75	103	70.0 to 130	1.37	20.0
BB03631	Selenium, Total	mg/L	0.000299	0.00100	0.10	0.101	0.100	0.102	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB03631	Boron, Total	mg/L	-0.00165	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BB03631	Mercury, Total by CVAA	mg/L	0.0000305	0.000500	0.004	0.00426	0.00427	0.00424	0.00340 to 0.00460	106	70.0 to 130	0.234	20.0
BB03631	Lead, Total	mg/L	0.0000012	0.000147	0.10	0.0935	0.0956	0.0971	0.0850 to 0.115	93.5	70.0 to 130	2.22	20.0
BB03631	Cobalt, Total	mg/L	-0.0000124	0.000147	0.10	0.102	0.102	0.107	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BB03631	Lithium, Total	mg/L	-0.0000744	0.0154	0.20	0.205	0.204	0.210	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB03631	Manganese, Total	mg/L	0.0000078	0.000147	0.10	0.101	0.101	0.105	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Chromium, Total	mg/L	-0.0000128	0.000440	0.10	0.0984	0.0999	0.104	0.0850 to 0.115	98.4	70.0 to 130	1.51	20.0
BB03631	Potassium, Total	mg/L	-0.00828	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB03631	Thallium, Total	mg/L	-0.0000113	0.000147	0.10	0.0887	0.0916	0.0930	0.0850 to 0.115	88.7	70.0 to 130	3.22	20.0
BB03630	Manganese, Dissolved	mg/L	0.0000093	0.000147	0.10	0.104	0.103	0.102	0.0850 to 0.115	99.2	70.0 to 130	0.966	20.0
BB03631	Barium, Total	mg/L	-0.0000215	0.000200	0.10	0.0951	0.0976	0.101	0.0850 to 0.115	95.1	70.0 to 130	2.59	20.0
BB03631	Iron, Total	mg/L	0.000896	0.0176	0.2	0.203	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.494	20.0
BB03631	Molybdenum, Total	mg/L	0.0000229	0.000147	0.10	0.0980	0.0985	0.102	0.0850 to 0.115	98.0	70.0 to 130	0.509	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 14:22

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-30HA

Laboratory ID Number: BB03627

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03631	Chloride	mg/L	-0.0578	0.500	10.0	9.72	0.0422	10.0	9.00 to 11.0	97.2	80.0 to 120	0.00	20.0
BB03630	Alkalinity, Total as CaCO3	mg/L					347	51.1	45.0 to 55.0			1.43	10.0
BB03631	Sulfate	mg/L	-0.522	0.500	20.0	19.4	-0.524	19.8	18.0 to 22.0	97.0	80.0 to 120	0.00	20.0
BB03630	Solids, Dissolved	mg/L	-1.00	25.0			847	51.0	40.0 to 60.0			0.353	5.00
BB03631	Fluoride	mg/L	0.0195	0.0500	2.50	2.73	0.0225	2.65	2.25 to 2.75	109	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.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - PZ-16

Location Code: WMWGORAP
Collected: 2/17/21 10:35
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03628

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	3/11/21 14:53	3/12/21 14:03		1.015	0.0890	mg/L	0.030000	0.1015	J
* Calcium, Total	3/11/21 14:53	3/12/21 14:03		1.015	9.59	mg/L	0.070035	0.406	
* Iron, Total	3/11/21 14:53	3/12/21 14:03		1.015	0.172	mg/L	0.008120	0.0406	
* Lithium, Total	3/11/21 14:53	3/12/21 14:03		1.015	0.0762	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/11/21 14:53	3/12/21 14:03		1.015	2.94	mg/L	0.021315	0.406	
* Sodium, Total	3/11/21 14:53	3/12/21 15:20		101.5	148	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/19/21 10:21	2/19/21 12:41		1.015	0.0758	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/18/21 11:46	2/18/21 16:52		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/18/21 11:46	2/18/21 16:52		1.015	0.000258	mg/L	0.000068	0.000203	
* Barium, Total	2/18/21 11:46	2/18/21 16:52		1.015	0.270	mg/L	0.000101	0.000203	
* Beryllium, Total	2/18/21 11:46	2/18/21 16:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/18/21 11:46	2/18/21 16:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/18/21 11:46	2/18/21 16:52		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/18/21 11:46	2/18/21 16:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/18/21 11:46	2/18/21 16:52		1.015	0.000148	mg/L	0.000068	0.000203	J
* Molybdenum, Total	2/18/21 11:46	2/18/21 16:52		1.015	0.00132	mg/L	0.000068	0.000203	
* Potassium, Total	2/18/21 11:46	2/18/21 16:52		1.015	1.88	mg/L	0.169505	0.5075	
* Manganese, Total	2/18/21 11:46	2/18/21 16:52		1.015	0.00647	mg/L	0.000068	0.000203	
* Selenium, Total	2/18/21 11:46	2/18/21 16:52		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/18/21 11:46	2/18/21 16:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/18/21 13:34	2/18/21 14:23		1.015	0.00573	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/22/21 13:34	2/22/21 14:07		1	310	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/22/21 15:00	2/24/21 07:45		1	397	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - PZ-16

Location Code: WMWGORAP
Collected: 2/17/21 10:35
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03628

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	307	mg/L			
Carbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	3.39	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/18/21 11:49	2/18/21 11:49		1	6.69	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/18/21 12:47	2/18/21 12:47		1	0.219	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/23/21 14:28	2/23/21 14:28		1	14.1	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/17/21 10:33	2/17/21 10:33			630.32	uS/cm			FA
pH	2/17/21 10:33	2/17/21 10:33			8.32	SU			FA
Temperature	2/17/21 10:33	2/17/21 10:33			16.40	C			FA
Turbidity	2/17/21 10:33	2/17/21 10:33			4.53	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 10:35

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - PZ-16

Laboratory ID Number: BB03628

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB03631	Beryllium, Total	mg/L	0.0000143	0.000880	0.10	0.0933	0.0928	0.0965	0.0850 to 0.115	93.3	70.0 to 130	0.537	20.0
BB03631	Antimony, Total	mg/L	0.000158	0.00100	0.10	0.0909	0.0932	0.0982	0.0850 to 0.115	90.9	70.0 to 130	2.50	20.0
BB03631	Chromium, Total	mg/L	-0.0000128	0.000440	0.10	0.0984	0.0999	0.104	0.0850 to 0.115	98.4	70.0 to 130	1.51	20.0
BB03631	Potassium, Total	mg/L	-0.00828	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB03631	Thallium, Total	mg/L	-0.0000113	0.000147	0.10	0.0887	0.0916	0.0930	0.0850 to 0.115	88.7	70.0 to 130	3.22	20.0
BB03631	Cobalt, Total	mg/L	-0.0000124	0.000147	0.10	0.102	0.102	0.107	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BB03631	Lithium, Total	mg/L	-0.0000744	0.0154	0.20	0.205	0.204	0.210	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB03631	Manganese, Total	mg/L	0.0000078	0.000147	0.10	0.101	0.101	0.105	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Boron, Total	mg/L	-0.00165	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BB03631	Mercury, Total by CVAA	mg/L	0.0000305	0.000500	0.004	0.00426	0.00427	0.00424	0.00340 to 0.00460	106	70.0 to 130	0.234	20.0
BB03631	Lead, Total	mg/L	0.0000012	0.000147	0.10	0.0935	0.0956	0.0971	0.0850 to 0.115	93.5	70.0 to 130	2.22	20.0
BB03631	Calcium, Total	mg/L	0.000993	0.152	5.00	5.04	5.00	4.98	4.25 to 5.75	101	70.0 to 130	0.797	20.0
BB03631	Magnesium, Total	mg/L	-0.000195	0.0462	5.00	5.14	5.08	5.12	4.25 to 5.75	103	70.0 to 130	1.17	20.0
BB03631	Sodium, Total	mg/L	0.00835	0.0440	5.00	5.15	5.08	5.24	4.25 to 5.75	103	70.0 to 130	1.37	20.0
BB03631	Selenium, Total	mg/L	0.000299	0.00100	0.10	0.101	0.100	0.102	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB03630	Iron, Dissolved	mg/L	-0.000255	0.0176	0.2	0.204	0.204	0.202	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BB03631	Arsenic, Total	mg/L	0.0000407	0.000147	0.10	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Cadmium, Total	mg/L	-0.0000078	0.000147	0.10	0.0991	0.0989	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.202	20.0
BB03630	Manganese, Dissolved	mg/L	0.0000093	0.000147	0.10	0.104	0.103	0.102	0.0850 to 0.115	99.2	70.0 to 130	0.966	20.0
BB03631	Barium, Total	mg/L	-0.0000215	0.000200	0.10	0.0951	0.0976	0.101	0.0850 to 0.115	95.1	70.0 to 130	2.59	20.0
BB03631	Iron, Total	mg/L	0.000896	0.0176	0.2	0.203	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.494	20.0
BB03631	Molybdenum, Total	mg/L	0.0000229	0.000147	0.10	0.0980	0.0985	0.102	0.0850 to 0.115	98.0	70.0 to 130	0.509	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 10:35

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - PZ-16

Laboratory ID Number: BB03628

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BB03630	Solids, Dissolved	mg/L	-1.00	25.0			847	51.0	40.0 to 60.0			0.353	5.00
BB03631	Chloride	mg/L	-0.0578	0.500	10.0	9.72	0.0422	10.0	9.00 to 11.0	97.2	80.0 to 120	0.00	20.0
BB03631	Sulfate	mg/L	-0.522	0.500	20.0	19.4	-0.524	19.8	18.0 to 22.0	97.0	80.0 to 120	0.00	20.0
BB03631	Fluoride	mg/L	0.0195	0.0500	2.50	2.73	0.0225	2.65	2.25 to 2.75	109	80.0 to 120	0.00	20.0
BB03630	Alkalinity, Total as CaCO3	mg/L					347	51.1	45.0 to 55.0			1.43	10.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-3

Location Code: WMWGORAP
Collected: 2/17/21 12:45
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03629

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	3/11/21 14:53	3/12/21 14:07		1.015	0.426	mg/L	0.030000	0.1015	
* Calcium, Total	3/11/21 14:53	3/12/21 14:07		1.015	39.3	mg/L	0.070035	0.406	
* Iron, Total	3/11/21 14:53	3/12/21 15:23		10.15	6.70	mg/L	0.08120	0.406	
* Lithium, Total	3/11/21 14:53	3/12/21 14:07		1.015	0.0995	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/11/21 14:53	3/12/21 14:07		1.015	16.8	mg/L	0.021315	0.406	
* Sodium, Total	3/11/21 14:53	3/12/21 15:23		10.15	72.1	mg/L	0.2030	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/19/21 10:21	2/19/21 13:10		10.15	7.35	mg/L	0.08120	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/18/21 11:46	2/18/21 16:56		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/18/21 11:46	2/18/21 16:56		1.015	0.000168	mg/L	0.000068	0.000203	J
* Barium, Total	2/18/21 11:46	2/18/21 16:56		1.015	0.590	mg/L	0.000101	0.000203	
* Beryllium, Total	2/18/21 11:46	2/18/21 16:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/18/21 11:46	2/18/21 16:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/18/21 11:46	2/18/21 16:56		1.015	0.000326	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/18/21 11:46	2/18/21 16:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/18/21 11:46	2/18/21 16:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/18/21 11:46	2/18/21 16:56		1.015	0.0113	mg/L	0.000068	0.000203	
* Potassium, Total	2/18/21 11:46	2/18/21 16:56		1.015	1.50	mg/L	0.169505	0.5075	
* Manganese, Total	2/18/21 11:46	2/18/21 16:56		1.015	0.273	mg/L	0.000068	0.000203	
* Selenium, Total	2/18/21 11:46	2/18/21 16:56		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/18/21 11:46	2/18/21 16:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/18/21 13:34	2/18/21 14:26		1.015	0.289	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/24/21 10:57	2/24/21 10:57		1	167	mg/L		0.10	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/22/21 15:00	2/24/21 07:45		1	387	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-3

Location Code: WMWGORAP
Collected: 2/17/21 12:45
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03629

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/24/21 10:57	2/24/21 10:57		1	167	mg/L			
Carbonate Alkalinity, (calc.)	2/24/21 10:57	2/24/21 10:57		1	0.37	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/18/21 11:50	2/18/21 11:50		1	17.4	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/18/21 12:48	2/18/21 12:48		1	0.100	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/23/21 14:36	2/23/21 14:36		10	158	mg/L	5.00	10	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/17/21 12:42	2/17/21 12:42			607.84	uS/cm			FA
pH	2/17/21 12:42	2/17/21 12:42			7.71	SU			FA
Temperature	2/17/21 12:42	2/17/21 12:42			14.85	C			FA
Turbidity	2/17/21 12:42	2/17/21 12:42			0.5	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 12:45

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-3

Laboratory ID Number: BB03629

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB03631	Antimony, Total	mg/L	0.000158	0.00100	0.10	0.0909	0.0932	0.0982	0.0850 to 0.115	90.9	70.0 to 130	2.50	20.0
BB03631	Beryllium, Total	mg/L	0.0000143	0.000880	0.10	0.0933	0.0928	0.0965	0.0850 to 0.115	93.3	70.0 to 130	0.537	20.0
BB03630	Iron, Dissolved	mg/L	-0.000255	0.0176	0.2	0.204	0.204	0.202	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BB03631	Arsenic, Total	mg/L	0.0000407	0.000147	0.10	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Cadmium, Total	mg/L	-0.0000078	0.000147	0.10	0.0991	0.0989	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.202	20.0
BB03631	Boron, Total	mg/L	-0.00165	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BB03631	Mercury, Total by CVAA	mg/L	0.0000305	0.000500	0.004	0.00426	0.00427	0.00424	0.00340 to 0.00460	106	70.0 to 130	0.234	20.0
BB03631	Lead, Total	mg/L	0.0000012	0.000147	0.10	0.0935	0.0956	0.0971	0.0850 to 0.115	93.5	70.0 to 130	2.22	20.0
BB03631	Calcium, Total	mg/L	0.000993	0.152	5.00	5.04	5.00	4.98	4.25 to 5.75	101	70.0 to 130	0.797	20.0
BB03631	Magnesium, Total	mg/L	-0.000195	0.0462	5.00	5.14	5.08	5.12	4.25 to 5.75	103	70.0 to 130	1.17	20.0
BB03631	Sodium, Total	mg/L	0.00835	0.0440	5.00	5.15	5.08	5.24	4.25 to 5.75	103	70.0 to 130	1.37	20.0
BB03631	Selenium, Total	mg/L	0.000299	0.00100	0.10	0.101	0.100	0.102	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB03631	Chromium, Total	mg/L	-0.0000128	0.000440	0.10	0.0984	0.0999	0.104	0.0850 to 0.115	98.4	70.0 to 130	1.51	20.0
BB03631	Potassium, Total	mg/L	-0.00828	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB03631	Thallium, Total	mg/L	-0.0000113	0.000147	0.10	0.0887	0.0916	0.0930	0.0850 to 0.115	88.7	70.0 to 130	3.22	20.0
BB03631	Cobalt, Total	mg/L	-0.0000124	0.000147	0.10	0.102	0.102	0.107	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BB03631	Lithium, Total	mg/L	-0.0000744	0.0154	0.20	0.205	0.204	0.210	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB03631	Manganese, Total	mg/L	0.0000078	0.000147	0.10	0.101	0.101	0.105	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03630	Manganese, Dissolved	mg/L	0.0000093	0.000147	0.10	0.104	0.103	0.102	0.0850 to 0.115	99.2	70.0 to 130	0.966	20.0
BB03631	Barium, Total	mg/L	-0.0000215	0.000200	0.10	0.0951	0.0976	0.101	0.0850 to 0.115	95.1	70.0 to 130	2.59	20.0
BB03631	Iron, Total	mg/L	0.000896	0.0176	0.2	0.203	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.494	20.0
BB03631	Molybdenum, Total	mg/L	0.0000229	0.000147	0.10	0.0980	0.0985	0.102	0.0850 to 0.115	98.0	70.0 to 130	0.509	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 12:45

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-3

Laboratory ID Number: BB03629

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB03630	Solids, Dissolved	mg/L	-1.00	25.0			847	51.0	40.0 to 60.0			0.353	5.00
BB03631	Chloride	mg/L	-0.0578	0.500	10.0	9.72	0.0422	10.0	9.00 to 11.0	97.2	80.0 to 120	0.00	20.0
BB03631	Fluoride	mg/L	0.0195	0.0500	2.50	2.73	0.0225	2.65	2.25 to 2.75	109	80.0 to 120	0.00	20.0
BB03630	Alkalinity, Total as CaCO3	mg/L					347	51.1	45.0 to 55.0			1.43	10.0
BB03631	Sulfate	mg/L	-0.522	0.500	20.0	19.4	-0.524	19.8	18.0 to 22.0	97.0	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.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-43H

Location Code: WMWGORAP
Collected: 2/17/21 14:20
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03630

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA		Preparation Method: EPA 1638					
* Boron, Total	3/11/21 14:53	3/12/21 14:10		1.015	0.119	mg/L	0.030000	0.1015	
* Calcium, Total	3/11/21 14:53	3/12/21 14:10		1.015	4.82	mg/L	0.070035	0.406	
* Iron, Total	3/11/21 14:53	3/12/21 14:10		1.015	0.214	mg/L	0.008120	0.0406	
* Lithium, Total	3/11/21 14:53	3/12/21 14:10		1.015	0.0723	mg/L	0.007105	0.01999956	
* Magnesium, Total	3/11/21 14:53	3/12/21 14:10		1.015	0.992	mg/L	0.021315	0.406	
* Sodium, Total	3/11/21 14:53	3/12/21 15:27		101.5	296	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	2/19/21 10:21	2/19/21 12:47		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: DLJ		Preparation Method: EPA 1638					
* Antimony, Total	2/18/21 11:46	2/18/21 17:00		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/18/21 11:46	2/18/21 17:00		1.015	0.00132	mg/L	0.000068	0.000203	
* Barium, Total	2/18/21 11:46	2/18/21 17:00		1.015	0.0894	mg/L	0.000101	0.000203	
* Beryllium, Total	2/18/21 11:46	2/18/21 17:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/18/21 11:46	2/18/21 17:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/18/21 11:46	2/18/21 17:00		1.015	0.000219	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/18/21 11:46	2/18/21 17:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/18/21 11:46	2/18/21 17:00		1.015	0.000328	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/18/21 11:46	2/18/21 17:00		1.015	0.00292	mg/L	0.000068	0.000203	
* Potassium, Total	2/18/21 11:46	2/18/21 17:00		1.015	3.73	mg/L	0.169505	0.5075	
* Manganese, Total	2/18/21 11:46	2/18/21 17:00		1.015	0.0112	mg/L	0.000068	0.000203	
* Selenium, Total	2/18/21 11:46	2/18/21 17:00		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/18/21 11:46	2/18/21 17:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	2/18/21 13:34	2/18/21 14:30		1.015	0.00482	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/22/21 13:34	2/22/21 14:07		1	352	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/22/21 15:00	2/24/21 07:45		1	853	mg/L		83.3	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-43H

Location Code: WMWGORAP
Collected: 2/17/21 14:20
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03630

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	336	mg/L			
Carbonate Alkalinity, (calc.)	2/22/21 13:34	2/22/21 14:07		1	15.8	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/18/21 11:57	2/18/21 11:57		8	96.3	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/18/21 12:49	2/18/21 12:49		1	0.174	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/23/21 14:37	2/23/21 14:37		20	285	mg/L	10.00	20	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	2/17/21 14:17	2/17/21 14:17			1411.83	uS/cm			FA
pH	2/17/21 14:17	2/17/21 14:17			8.72	SU			FA
Temperature	2/17/21 14:17	2/17/21 14:17			14.51	C			FA
Turbidity	2/17/21 14:17	2/17/21 14:17			1.63	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.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 14:20

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-43H

Laboratory ID Number: BB03630

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB03631	Antimony, Total	mg/L	0.000158	0.00100	0.10	0.0909	0.0932	0.0982	0.0850 to 0.115	90.9	70.0 to 130	2.50	20.0
BB03631	Beryllium, Total	mg/L	0.0000143	0.000880	0.10	0.0933	0.0928	0.0965	0.0850 to 0.115	93.3	70.0 to 130	0.537	20.0
BB03631	Boron, Total	mg/L	-0.00165	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BB03631	Mercury, Total by CVAA	mg/L	0.0000305	0.000500	0.004	0.00426	0.00427	0.00424	0.00340 to 0.00460	106	70.0 to 130	0.234	20.0
BB03631	Lead, Total	mg/L	0.0000012	0.000147	0.10	0.0935	0.0956	0.0971	0.0850 to 0.115	93.5	70.0 to 130	2.22	20.0
BB03631	Cobalt, Total	mg/L	-0.0000124	0.000147	0.10	0.102	0.102	0.107	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BB03631	Lithium, Total	mg/L	-0.0000744	0.0154	0.20	0.205	0.204	0.210	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB03631	Manganese, Total	mg/L	0.0000078	0.000147	0.10	0.101	0.101	0.105	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03630	Iron, Dissolved	mg/L	-0.000255	0.0176	0.2	0.204	0.204	0.202	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BB03631	Arsenic, Total	mg/L	0.0000407	0.000147	0.10	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Cadmium, Total	mg/L	-0.0000078	0.000147	0.10	0.0991	0.0989	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.202	20.0
BB03631	Calcium, Total	mg/L	0.000993	0.152	5.00	5.04	5.00	4.98	4.25 to 5.75	101	70.0 to 130	0.797	20.0
BB03631	Magnesium, Total	mg/L	-0.000195	0.0462	5.00	5.14	5.08	5.12	4.25 to 5.75	103	70.0 to 130	1.17	20.0
BB03631	Sodium, Total	mg/L	0.00835	0.0440	5.00	5.15	5.08	5.24	4.25 to 5.75	103	70.0 to 130	1.37	20.0
BB03631	Selenium, Total	mg/L	0.000299	0.00100	0.10	0.101	0.100	0.102	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB03631	Chromium, Total	mg/L	-0.0000128	0.000440	0.10	0.0984	0.0999	0.104	0.0850 to 0.115	98.4	70.0 to 130	1.51	20.0
BB03631	Potassium, Total	mg/L	-0.00828	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB03631	Thallium, Total	mg/L	-0.0000113	0.000147	0.10	0.0887	0.0916	0.0930	0.0850 to 0.115	88.7	70.0 to 130	3.22	20.0
BB03630	Manganese, Dissolved	mg/L	0.0000093	0.000147	0.10	0.104	0.103	0.102	0.0850 to 0.115	99.2	70.0 to 130	0.966	20.0
BB03631	Barium, Total	mg/L	-0.0000215	0.000200	0.10	0.0951	0.0976	0.101	0.0850 to 0.115	95.1	70.0 to 130	2.59	20.0
BB03631	Iron, Total	mg/L	0.000896	0.0176	0.2	0.203	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.494	20.0
BB03631	Molybdenum, Total	mg/L	0.0000229	0.000147	0.10	0.0980	0.0985	0.102	0.0850 to 0.115	98.0	70.0 to 130	0.509	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 3/23/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/17/21 14:20

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond - MW-43H

Laboratory ID Number: BB03630

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB03631	Chloride	mg/L	-0.0578	0.500	10.0	9.72	0.0422	10.0	9.00 to 11.0	97.2	80.0 to 120	0.00	20.0
BB03630	Solids, Dissolved	mg/L	-1.00	25.0			847	51.0	40.0 to 60.0			0.353	5.00
BB03630	Alkalinity, Total as CaCO3	mg/L					347	51.1	45.0 to 55.0			1.43	10.0
BB03631	Fluoride	mg/L	0.0195	0.0500	2.50	2.73	0.0225	2.65	2.25 to 2.75	109	80.0 to 120	0.00	20.0
BB03631	Sulfate	mg/L	-0.522	0.500	20.0	19.4	-0.524	19.8	18.0 to 22.0	97.0	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.
 LBM 3/23/21

Certificate Of Analysis

Description: Gorgas Ash Pond Field Blank-3

Location Code: WMWGORAPFB
Collected: 2/17/21 15:00
Customer ID:
Submittal Date: 2/18/21 10:31

Laboratory ID Number: BB03631

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	3/11/21 14:53	3/12/21 14:14		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	3/11/21 14:53	3/12/21 14:14		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	3/11/21 14:53	3/12/21 14:14		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	3/11/21 14:53	3/12/21 14:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	3/11/21 14:53	3/12/21 14:14		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	3/11/21 14:53	3/12/21 14:14		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/18/21 11:46	2/18/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/19/21 09:46	2/19/21 13:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/22/21 15:00	2/24/21 07:45		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	2/18/21 11:53	2/18/21 11:53		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/18/21 12:50	2/18/21 12:50		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/23/21 14:31	2/23/21 14:31		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/17/21 15:00

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond Field Blank-3

Laboratory ID Number: BB03631

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB03631	Antimony, Total	mg/L	0.000158	0.00100	0.10	0.0909	0.0932	0.0982	0.0850 to 0.115	90.9	70.0 to 130	2.50	20.0
BB03631	Beryllium, Total	mg/L	0.0000143	0.000880	0.10	0.0933	0.0928	0.0965	0.0850 to 0.115	93.3	70.0 to 130	0.537	20.0
BB03631	Boron, Total	mg/L	-0.00165	0.0650	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BB03631	Mercury, Total by CVAA	mg/L	0.0000305	0.000500	0.004	0.00426	0.00427	0.00424	0.00340 to 0.00460	106	70.0 to 130	0.234	20.0
BB03631	Lead, Total	mg/L	0.0000012	0.000147	0.10	0.0935	0.0956	0.0971	0.0850 to 0.115	93.5	70.0 to 130	2.22	20.0
BB03631	Arsenic, Total	mg/L	0.0000407	0.000147	0.10	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Cadmium, Total	mg/L	-0.0000078	0.000147	0.10	0.0991	0.0989	0.101	0.0850 to 0.115	99.1	70.0 to 130	0.202	20.0
BB03631	Cobalt, Total	mg/L	-0.0000124	0.000147	0.10	0.102	0.102	0.107	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BB03631	Lithium, Total	mg/L	-0.0000744	0.0154	0.20	0.205	0.204	0.210	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB03631	Manganese, Total	mg/L	0.0000078	0.000147	0.10	0.101	0.101	0.105	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB03631	Chromium, Total	mg/L	-0.0000128	0.000440	0.10	0.0984	0.0999	0.104	0.0850 to 0.115	98.4	70.0 to 130	1.51	20.0
BB03631	Potassium, Total	mg/L	-0.00828	0.367	10.0	10.2	10.3	10.6	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB03631	Thallium, Total	mg/L	-0.0000113	0.000147	0.10	0.0887	0.0916	0.0930	0.0850 to 0.115	88.7	70.0 to 130	3.22	20.0
BB03631	Calcium, Total	mg/L	0.000993	0.152	5.00	5.04	5.00	4.98	4.25 to 5.75	101	70.0 to 130	0.797	20.0
BB03631	Magnesium, Total	mg/L	-0.000195	0.0462	5.00	5.14	5.08	5.12	4.25 to 5.75	103	70.0 to 130	1.17	20.0
BB03631	Sodium, Total	mg/L	0.00835	0.0440	5.00	5.15	5.08	5.24	4.25 to 5.75	103	70.0 to 130	1.37	20.0
BB03631	Selenium, Total	mg/L	0.000299	0.00100	0.10	0.101	0.100	0.102	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB03631	Barium, Total	mg/L	-0.0000215	0.000200	0.10	0.0951	0.0976	0.101	0.0850 to 0.115	95.1	70.0 to 130	2.59	20.0
BB03631	Iron, Total	mg/L	0.000896	0.0176	0.2	0.203	0.202	0.201	0.170 to 0.230	102	70.0 to 130	0.494	20.0
BB03631	Molybdenum, Total	mg/L	0.0000229	0.000147	0.10	0.0980	0.0985	0.102	0.0850 to 0.115	98.0	70.0 to 130	0.509	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/17/21 15:00

Customer ID:

Delivery Date: 2/18/21 10:31

Description: Gorgas Ash Pond Field Blank-3

Laboratory ID Number: BB03631

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB03631	Chloride	mg/L	-0.0578	0.500	10.0	9.72	0.0422	10.0	9.00 to 11.0	97.2	80.0 to 120	0.00	20.0
BB03631	Sulfate	mg/L	-0.522	0.500	20.0	19.4	-0.524	19.8	18.0 to 22.0	97.0	80.0 to 120	0.00	20.0
BB03631	Fluoride	mg/L	0.0195	0.0500	2.50	2.73	0.0225	2.65	2.25 to 2.75	109	80.0 to 120	0.00	20.0
BB03630	Solids, Dissolved	mg/L	-1.00	25.0			847	51.0	40.0 to 60.0			0.353	5.00

Comments:

Definitions

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

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
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		
	John Pate			Requested By	Greg Dyer	
	Dallas Gentry				Location		Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-12V	02/01/2021	12:55	6	Groundwater		BB02249
MW-12V dis	02/01/2021	12:55	5	Groundwater		BB02250
MW-12	02/01/2021	15:37	6	Groundwater		BB02251
MW-9V	02/02/2021	09:47	6	Groundwater		BB02252
MW-40H	02/02/2021	11:09	6	Groundwater		BB02253
MW-8	02/02/2021	12:35	6	Groundwater		BB02254
MW-24H	02/02/2021	14:15	6	Groundwater		BB02255
MW-24H dup	02/02/2021	14:15	6	Sample Duplicate		BB02256

Relinquished By	Received By	Date/Time
		02/02/2021 15:12
		02/02/2021 18:44

SmarTroll ID 7586-41442-5-1
Turbidity ID 3901-20010-2-2
Sample Event 1305

All metals and radiological bottles have pH < 2
Cooler Temp 0.0 degrees C
Thermometer ID 5408-27568-2-2
pH Strip ID 8129-45507-2-2

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	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Ash Pond

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

Comments: Correcting FB-2 bottle count to 4. LBM 2/2/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-31H	02/01/2021	12:20	6	Groundwater		BB02241
MW-2	02/01/2021	14:16	6	Groundwater		BB02242
MW-7	02/02/2021	13:33	6	Groundwater		BB02243
MW-7 Dis	02/02/2021	13:33	5	Groundwater		BB02244
FB-2	02/02/2021	15:00	4	Field Blank		BB02245

Relinquished By	Received By	Date/Time
		02/02/2021 15:28
		02/02/2021 18:43

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20009-2-1		
Sample Event	1305		
		Cooler Temp	0.0 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	8129-45507-2-2

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Anthony Goggins		Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17V	02/02/2021	13:05	6	Groundwater		BB02246
MW-17	02/02/2021	14:35	6	Groundwater		BB02247
PZ-22	02/02/2021	16:32	6	Groundwater		BB02248

Relinquished By <i>[Signature]</i>	Received By <i>[Signature]</i>	Date/Time 02/02/2021 18:59

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	7061-38344-3-3	
Sample Event	1305	
Cooler Temp	0.0 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8129-45507-2-2	



Chain of Custody
Groundwater
APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	TJ Daugherty		Gorgas Ash Pond

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

Comments: Updating bottle counts to 6. Correcting collection time of MW-23H to 14:50 per TJD. LBM 02/04/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	02/03/2021	09:40	6	Groundwater		BB02425
MW-6S Dup	02/03/2021	09:40	6	Sample Duplicate		BB02426
MW-6D	02/03/2021	10:40	6	Groundwater		BB02427
MW-6V	02/03/2021	13:25	6	Groundwater		BB02428
MW-23H	02/03/2021	14:50	6	Groundwater		BB02429

Relinquished By <i>HAB</i>	Received By <i>Laura Webb</i>	Date/Time 02/04/2021 08:24

SmarTroll ID	7586-41444-5-3
Turbidity ID	3901-20009-2-1
Sample Event	1305

All metals and radiological bottles have pH < 2

Cooler Temp	0.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45507-2-2

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		
	Site Representative		John Pate	Requested By	Greg Dyer
	Collector		Dallas Gentry		Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-42H	02/03/2021	09:20	6	Groundwater		BB02421
MW-29H	02/03/2021	10:46	6	Groundwater		BB02422
FB-1	02/03/2021	11:45	4	Field Blank		BB02423
MW-18V	02/03/2021	12:00	6	Groundwater		BB02424

Relinquished By	Received By	Date/Time
<i>Mel Dyer</i>	<i>Laura Webb</i>	02/04/2021 08:25

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>		
Turbidity ID	3901-20010-2-2		Cooler Temp	0.1 degrees C
Sample Event	1305		Thermometer ID	5408-27568-2-2
			pH Strip ID	8129-45507-2-2

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 **02/10/2021 09:00**

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	TJ Daugherty		Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-41HS	02/08/2021	12:30	6	Groundwater		BB02890
MW-41HD	02/08/2021	14:00	6	Groundwater		BB02891
MW-41HD Dup	02/08/2021	14:00	6	Sample Duplicate		BB02892
MW-38H	02/09/2021	10:22	6	Groundwater		BB02893
MW-26H	02/09/2021	12:52	6	Groundwater		BB02894

Relinquished By	Received By	Date/Time
<i>JAD</i>	<i>Aaron Miller</i>	02/10/2021 08:13

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20009-2-1		
Sample Event	1305		
Cooler Temp	0.0 degrees C		
		Thermometer ID	5408-27568-2-2
		pH Strip ID	8206-45803-10-7

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	
Site Representative	John Pate	Requested By	Greg Dyer	
Collector	Dallas Gentry	Location	Gorgas Ash Pond	

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

Comments: Correcting time to 13:35 per DFG to MW-15. LBM 2/10/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19	02/08/2021	10:08	6	Groundwater		BB02882
MW-19 dup	02/08/2021	10:08	6	Sample Duplicate		BB02883
MW-18	02/08/2021	12:57	6	Groundwater		BB02884
MW-21	02/08/2021	15:03	6	Groundwater		BB02885
EB-1	02/08/2021	16:05	4	Equipment Blank		BB02886
MW-21V	02/09/2021	11:22	6	Groundwater		BB02887
MW-15	02/09/2021	13:35	6	Groundwater		BB02888
MW-15V	02/09/2021	15:05	6	Groundwater		BB02889

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Kevin M. Dyer</i>	02/10/2021 08:13

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1305	
Cooler Temp	0.2 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8129-45507-2-2	

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		
	John Pate			Requested By	Greg Dyer	
	Dallas Gentry				Location		Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-25HA	02/10/2021	11:19	6	Groundwater		BB03088
PZ-18	02/10/2021	13:52	6	Groundwater		BB03089
MW-32H	02/10/2021	15:23	6	Groundwater		BB03090

Relinquished By	Received By	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	02/11/2021 08:31

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20010-2-2		
Sample Event	1305		
		Cooler Temp	0.6 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	8206-45803-10-7



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 02/11/2021 09:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer	
Site Representative	John Pate	Requested By	Greg Dyer	
Collector	TJ Daugherty	Location	Gorgas Ash Pond	

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

Comments: Correcting times for MW-16D & MW-16D DIS to 15:50 per TJD. LBM 2/11/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16S	02/10/2021	13:07	6	Groundwater		BB03091
MW-16D	02/10/2021	15:50	6	Groundwater		BB03092
MW-16D Dis	02/10/2021	15:50	5	Groundwater		BB03093
FB-4	02/10/2021	17:00	4	Field Blank		BB03094

Relinquished By	Received By	Date/Time
		02/11/2021 08:33

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp
Sample Event	1305	Thermometer ID
		pH Strip ID

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	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-36H	02/17/2021	11:27	6	Groundwater		BB03625
MW-28H	02/17/2021	12:50	6	Groundwater		BB03626
MW-30HA	02/17/2021	14:22	6	Groundwater		BB03627

Relinquished By	Received By	Date/Time
<i>Mel Dyer</i>	<i>Lauren Miller</i>	02/18/2021 08:31

SmarTroll ID	7586-41442-5-1
Turbidity ID	3901-20010-2-2
Sample Event	1305

All metals and radiological bottles have pH < 2

Cooler Temp	0.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8206-45803-10-7

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 **02/18/2021 09:00**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
PZ-16	02/17/2021	10:35	6	Groundwater		BB03628
MW-3	02/17/2021	12:45	6	Groundwater		BB03629
MW-43H	02/17/2021	14:20	6	Groundwater		BB03630
FB-3	02/17/2021	15:00	4	Field Blank		BB03631

Relinquished By	Received By	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	02/18/2021 08:32

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	
Sample Event	1305	
Cooler Temp	0.3 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8206-45803-10-7	

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	Results To	Dustin Brooks, Greg Dyer		
	Site Representative		John Pate	Requested By	Greg Dyer
	Collector		Dallas Gentry		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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-12V	02/01/2021	12:55	1	Groundwater		BB02265
MW-12V dis	02/01/2021	12:55	1	Groundwater		BB02266
MW-12	02/01/2021	15:37	1	Groundwater		BB02267
MW-9V	02/02/2021	09:47	1	Groundwater		BB02268
MW-40H	02/02/2021	11:09	1	Groundwater		BB02269
MW-8	02/02/2021	12:35	1	Groundwater		BB02270
MW-24H	02/02/2021	14:15	1	Groundwater		BB02271
MW-24H dup	02/02/2021	14:15	1	Sample Duplicate		BB02272

Relinquished By	Received By	Date/Time
		02/02/2021 15:12
		02/02/2021 18:44

SmarTroll ID	7586-41442-5-1
Turbidity ID	3901-20010-2-2
Sample Event	1305

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45507-2-2

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-31H	02/01/2021	12:20	1	Groundwater		BB02257
MW-2	02/01/2021	14:16	1	Groundwater		BB02258
MW-7	02/02/2021	13:33	1	Groundwater		BB02259
MW-7 Dis	02/02/2021	13:33	1	Groundwater		BB02260
FB-2	02/02/2021	15:00	1	Field Blank		BB02261

Relinquished By	Received By	Date/Time
		02/02/2021 15:28
		02/02/2021 18:41

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	
Sample Event	1305	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	8129-45507-2-2	

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		Results To	Dustin Brooks, Greg Dyer		
	John Pate			Requested By	Greg Dyer	
	Anthony Goggins				Location	
Collector		Gorgas Ash Pond				

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

Comments: Collected by Hunter Gibson/Anthony Goggins

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17V	02/02/2021	13:05	1	Groundwater		BB02262
MW-17	02/02/2021	14:35	1	Groundwater		BB02263
PZ-22	02/02/2021	16:32	1	Groundwater		BB02264

Relinquished By	Received By	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	02/02/2021 18:58

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	7061-38344-3-3		
Sample Event	1305		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	8129-45507-2-2

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Dallas Gentry		Gorgas Ash Pond

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

Comments: Radium MS/MSD collected at MW-42H

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-42H	02/03/2021	09:20	3	Groundwater		BB02430
MW-29H	02/03/2021	10:46	1	Groundwater		BB02431
FB-1	02/03/2021	11:45	1	Field Blank		BB02432
MW-18V	02/03/2021	12:00	1	Groundwater		BB02433

Relinquished By	Received By	Date/Time
<i>M. Dyer</i>	<i>Laura Webb</i>	02/04/2021 08:25

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20010-2-2		
Sample Event	1305		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	8129-45507-2-2

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	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-6D. Correcting collection time of MW-23H to 14:50 per TJD. LBM 02/04/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	02/03/2021	09:40	1	Groundwater		BB02434
MW-6S Dup	02/03/2021	09:40	1	Sample Duplicate		BB02435
MW-6D	02/03/2021	10:40	3	Groundwater		BB02436
MW-6V	02/03/2021	13:25	1	Groundwater		BB02437
MW-23H	02/03/2021	14:50	1	Groundwater		BB02438

Relinquished By	Received By	Date/Time
		02/04/2021 08:24

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20009-2-1		
Sample Event	1305		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL



Chain of Custody Groundwater

APC General Testing Laboratory

 Field Complete Outside Lab Lab CompleteLab ETA

Requested Complete Date Site Representative Collector	Routine	Results To	Dustin Brooks, Greg Dyer
	John Pate	Requested By	Greg Dyer
	Dallas Gentry	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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-18. Correcting time to 13:35 per DFG to MW-15.
2mL HNO3 (#8386-49506-2-1) added by LBM on 2/10/21 at 09:27 to Radium bottle MW-15 to reach pH<2. LBM 2/10/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19	02/08/2021	10:08	1	Groundwater		BB02895
MW-19 dup	02/08/2021	10:08	1	Sample Duplicate		BB02896
MW-18	02/08/2021	12:57	3	Groundwater		BB02897
MW-21	02/08/2021	15:03	1	Groundwater		BB02898
EB-1	02/08/2021	16:05	1	Equipment Blank		BB02899
MW-21V	02/09/2021	11:22	1	Groundwater		BB02900
MW-15	02/09/2021	13:35	1	Groundwater		BB02901
MW-15V	02/09/2021	15:05	1	Groundwater		BB02902

Relinquished By	Received By	Date/Time
<i>M. Dyer</i>	<i>Laura M. King</i>	02/10/2021 08:14

SmarTroll ID	7586-41442-5-1
Turbidity ID	3901-20010-2-2
Sample Event	1305

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45507-2-2

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 **02/10/2021 09:00**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-41HS	02/08/2021	12:30	1	Groundwater		BB02903
MW-41HD	02/08/2021	14:00	1	Groundwater		BB02904
MW-41HD Dup	02/08/2021	14:00	1	Sample Duplicate		BB02905
MW-38H	02/09/2021	10:22	1	Groundwater		BB02906
MW-26H	02/09/2021	12:52	1	Groundwater		BB02907

Relinquished By	Received By	Date/Time
<i>J. Pate</i>	<i>Greg Dyer</i>	02/10/2021 08:13

SmarTroll ID	7586-41444-5-3
Turbidity ID	3901-20009-2-1
Sample Event	1305

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8206-45803-10-7

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		
	John Pate			Requested By	Greg Dyer	
	Dallas Gentry				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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-25HA	02/10/2021	11:19	1	Groundwater		BB03095
PZ-18	02/10/2021	13:52	1	Groundwater		BB03096
MW-32H	02/10/2021	15:23	1	Groundwater		BB03097

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Laura M. Dyer</i>	02/11/2021 08:32

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>		
Turbidity ID	3901-20010-2-2		Cooler Temp	N/A
Sample Event	1305		Thermometer ID	N/A
		pH Strip ID	8206-45803-10-7	

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 02/11/2021 09:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments Correcting times for MW-16D & MW-16D DIS to 15:50 per TJD. LBM 2/11/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16S	02/10/2021	13:07	1	Groundwater		BB03098
MW-16D	02/10/2021	15:50	1	Groundwater		BB03099
MW-16D Dis	02/10/2021	15:50	1	Groundwater		BB03100
FB-4	02/10/2021	17:00	1	Field Blank		BB03101

Relinquished By	Received By	Date/Time
		02/11/2021 08:33

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp
Sample Event	1305	Thermometer ID
		pH Strip ID
		8206-45803-10-7

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Dallas Gentry		Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-36H	02/17/2021	11:27	1	Groundwater		BB03632
MW-28H	02/17/2021	12:50	1	Groundwater		BB03633
MW-30HA	02/17/2021	14:22	1	Groundwater		BB03634

Relinquished By	Received By	Date/Time
		02/18/2021 08:30

SmarTroll ID	7586-41442-5-1
Turbidity ID	3901-20010-2-2
Sample Event	1305

All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8206-45803-10-7

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 02/18/2021 09:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
PZ-16	02/17/2021	10:35	1	Groundwater		BB03635
MW-3	02/17/2021	12:45	1	Groundwater		BB03636
MW-43H	02/17/2021	14:20	1	Groundwater		BB03637
FB-3	02/17/2021	15:00	1	Field Blank		BB03638

Relinquished By	Received By	Date/Time
		02/18/2021 08:32

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp
Sample Event	1305	Thermometer ID
		pH Strip ID
		8206-45803-10-7

Bottles/Pre-Preserved Bottles are provided by the GTL

March 30, 2021

Laura Midkiff
Alabama Power
744 Highway 87
GSC #8
Calera, AL 35040

RE: Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory on February 24, 2021. 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,



Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Brooke Caton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

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 #: 9526
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

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SAMPLE SUMMARY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92524191001	BB02257 MW-31H	Water	02/01/21 12:20	02/24/21 11:30
92524191002	BB02258 MW-2	Water	02/01/21 14:16	02/24/21 11:30
92524191003	BB02259 MW-7	Water	02/02/21 13:33	02/24/21 11:30
92524191004	BB02260 MW-7 DIS	Water	02/02/21 13:33	02/24/21 11:30
92524191005	BB02261 FB-2	Water	02/02/21 15:00	02/24/21 11:30
92524191006	BB02262 MW-17V	Water	02/02/21 13:05	02/24/21 11:30
92524191007	BB02263 MW-17	Water	02/02/21 14:35	02/24/21 11:30
92524191008	BB02264 PZ-22	Water	02/02/21 16:32	02/24/21 11:30
92524191009	BB02265 MW-12V	Water	02/01/21 12:55	02/24/21 11:30
92524191010	BB02266 MW-12V DIS	Water	02/01/21 12:55	02/24/21 11:30
92524191011	BB02267 MW-12	Water	02/01/21 15:37	02/24/21 11:30
92524191012	BB02268 MW-9V	Water	02/02/21 09:47	02/24/21 11:30
92524191013	BB02269 MW-40H	Water	02/02/21 11:09	02/24/21 11:30
92524191014	BB02270 MW-8	Water	02/02/21 12:35	02/24/21 11:30
92524191015	BB02271 MW-24H	Water	02/02/21 14:15	02/24/21 11:30
92524191016	BB02272 MW-24H DUP	Water	02/02/21 14:15	02/24/21 11:30
92524191017	BB02430 MW-42H	Water	02/03/21 09:20	02/24/21 11:30
92524191018	BB02430 MW-42H MS	Water	02/03/21 09:20	02/24/21 11:30
92524191019	BB02430 MW-42H MSD	Water	02/03/21 09:20	02/24/21 11:30
92524191020	BB02431 MW-29H	Water	02/03/21 10:46	02/24/21 11:30
92524191021	BB02432 FB-1	Water	02/03/21 11:45	02/24/21 11:30
92524191022	BB02433 MW-18V	Water	02/03/21 12:00	02/24/21 11:30
92524191023	BB02434 MW-6S	Water	02/03/21 09:40	02/24/21 11:30
92524191024	BB02435 MW-6S DUP	Water	02/03/21 09:40	02/24/21 11:30
92524191025	BB02436 MW-6D	Water	02/03/21 10:40	02/24/21 11:30
92524191026	BB02436 MW-6D MS	Water	02/03/21 10:40	02/24/21 11:30
92524191027	BB02436 MW-6D MSD	Water	02/03/21 10:40	02/24/21 11:30
92524191028	BB02437 MW-6V	Water	02/03/21 13:25	02/24/21 11:30
92524191029	BB02438 MW-23H	Water	02/03/21 14:50	02/24/21 11:30
92524191030	BB02895 MW-19	Water	02/08/21 10:08	02/24/21 11:30
92524191031	BB02896 MW-19 DUP	Water	02/08/21 10:08	02/24/21 11:30
92524191032	BB02897 MW-18	Water	02/08/21 12:57	02/24/21 11:30
92524191033	BB02897 MW-18 MS	Water	02/08/21 12:57	02/24/21 11:30
92524191034	BB02897 MW-18 MSD	Water	02/08/21 12:57	02/24/21 11:30
92524191035	BB02898 MW-21	Water	02/08/21 15:03	02/24/21 11:30
92524191036	BB02899 EB-1	Water	02/08/21 16:05	02/24/21 11:30
92524191037	BB02900 MW-21V	Water	02/09/21 11:22	02/24/21 11:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92524191038	BB02901 MW-15	Water	02/09/21 13:35	02/24/21 11:30
92524191039	BB02902 MW-15V	Water	02/09/21 15:05	02/24/21 11:30
92524191040	BB02903 MW-41HS	Water	02/08/21 12:30	02/24/21 11:30
92524191041	BB02904 MW-41HD	Water	02/08/21 14:00	02/24/21 11:30
92524191042	BB02905 MW-41HD DUP	Water	02/08/21 14:00	02/24/21 11:30
92524191043	BB02906 MW-38H	Water	02/09/21 10:22	02/24/21 11:30
92524191044	BB02907 MW-26H	Water	02/09/21 12:52	02/24/21 11:30
92524191045	BB03095 MW-25HA	Water	02/10/21 11:19	02/24/21 11:30
92524191046	BB03096 PZ-18	Water	02/10/21 13:52	02/24/21 11:30
92524191047	BB03097 MW-32H	Water	02/10/21 15:23	02/24/21 11:30
92524191048	BB03098 MW-16S	Water	02/10/21 13:07	02/24/21 11:30
92524191049	BB03099 MW-16D	Water	02/10/21 15:50	02/24/21 11:30
92524191050	BB03100 MW-16D DIS	Water	02/10/21 15:50	02/24/21 11:30
92524191051	BB03101 FB-4	Water	02/10/21 17:00	02/24/21 11:30
92524191052	BB03632 MW-36H	Water	02/17/21 11:27	02/24/21 11:30
92524191053	BB03633 MW-28H	Water	02/17/21 12:50	02/24/21 11:30
92524191054	BB03634 MW-30HA	Water	02/17/21 14:22	02/24/21 11:30
92524191055	BB03635 PZ-16	Water	02/17/21 10:35	02/24/21 11:30
92524191056	BB03636 MW-3	Water	02/17/21 12:45	02/24/21 11:30
92524191057	BB03637 MW-43H	Water	02/17/21 14:20	02/24/21 11:30
92524191058	BB03638 FB-3	Water	02/17/21 15:00	02/24/21 11:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92524191001	BB02257 MW-31H	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191002	BB02258 MW-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191003	BB02259 MW-7	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191004	BB02260 MW-7 DIS	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191005	BB02261 FB-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191006	BB02262 MW-17V	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191007	BB02263 MW-17	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191008	BB02264 PZ-22	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191009	BB02265 MW-12V	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191010	BB02266 MW-12V DIS	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191011	BB02267 MW-12	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191012	BB02268 MW-9V	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191013	BB02269 MW-40H	EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92524191014	BB02270 MW-8	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191015	BB02271 MW-24H	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191016	BB02272 MW-24H DUP	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92524191017	BB02430 MW-42H	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191018	BB02430 MW-42H MS	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92524191019	BB02430 MW-42H MSD	EPA 9320	VAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92524191020	BB02431 MW-29H	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191021	BB02432 FB-1	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191022	BB02433 MW-18V	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92524191023	BB02434 MW-6S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191024	BB02435 MW-6S DUP	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191025	BB02436 MW-6D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92524191026	BB02436 MW-6D MS	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92524191027	BB02436 MW-6D MSD	EPA 9320	VAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92524191028	BB02437 MW-6V	EPA 9320	VAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191029	BB02438 MW-23H	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191030	BB02895 MW-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191031	BB02896 MW-19 DUP	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191032	BB02897 MW-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191033	BB02897 MW-18 MS	EPA 9315	LAL	1	PASI-PA
92524191034	BB02897 MW-18 MSD	EPA 9320	VAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191035	BB02898 MW-21	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191036	BB02899 EB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191037	BB02900 MW-21V	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191038	BB02901 MW-15	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191039	BB02902 MW-15V	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92524191040	BB02903 MW-41HS	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191041	BB02904 MW-41HD	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191042	BB02905 MW-41HD DUP	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191043	BB02906 MW-38H	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191044	BB02907 MW-26H	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191045	BB03095 MW-25HA	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191046	BB03096 PZ-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191047	BB03097 MW-32H	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191048	BB03098 MW-16S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191049	BB03099 MW-16D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191050	BB03100 MW-16D DIS	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191051	BB03101 FB-4	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191052	BB03632 MW-36H	EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92524191053	BB03633 MW-28H	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191054	BB03634 MW-30HA	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191055	BB03635 PZ-16	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
92524191056	BB03636 MW-3	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92524191057	BB03637 MW-43H	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92524191058	BB03638 FB-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: March 30, 2021

General Information:

58 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:

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PROJECT NARRATIVE

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: March 30, 2021

General Information:

58 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:

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PROJECT NARRATIVE

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Alabama Power

Date: March 30, 2021

General Information:

52 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: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02257 MW-31H **Lab ID: 92524191001** Collected: 02/01/21 12:20 Received: 02/24/21 11:30 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	0.189U ± 0.164 (0.306) C:93% T:NA	pCi/L	03/26/21 08:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.119U ± 0.325 (0.794) C:72% T:80%	pCi/L	03/11/21 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.189U ± 0.489 (1.10)	pCi/L	03/26/21 15:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02258 MW-2 **Lab ID: 92524191002** Collected: 02/01/21 14:16 Received: 02/24/21 11:30 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	0.0849U ± 0.129 (0.282) C:93% T:NA	pCi/L	03/26/21 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.433U ± 0.353 (0.691) C:72% T:84%	pCi/L	03/11/21 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.518U ± 0.482 (0.973)	pCi/L	03/26/21 15:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02259 MW-7 **Lab ID: 92524191003** Collected: 02/02/21 13:33 Received: 02/24/21 11:30 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	0.236U ± 0.200 (0.375) C:80% T:NA	pCi/L	03/26/21 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.137U ± 0.364 (0.815) C:72% T:84%	pCi/L	03/11/21 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.373U ± 0.564 (1.19)	pCi/L	03/26/21 15:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02260 MW-7 DIS **Lab ID: 92524191004** Collected: 02/02/21 13:33 Received: 02/24/21 11:30 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	0.0231U ± 0.108 (0.280) C:87% T:NA	pCi/L	03/26/21 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.802U ± 0.486 (0.911) C:70% T:85%	pCi/L	03/11/21 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.825U ± 0.594 (1.19)	pCi/L	03/26/21 15:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02261 FB-2 **Lab ID: 92524191005** Collected: 02/02/21 15:00 Received: 02/24/21 11:30 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	0.00763U ± 0.145 (0.374) C:100% T:NA	pCi/L	03/26/21 07:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.551U ± 0.387 (0.746) C:76% T:92%	pCi/L	03/11/21 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.559U ± 0.532 (1.12)	pCi/L	03/26/21 15:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02262 MW-17V **Lab ID: 92524191006** Collected: 02/02/21 13:05 Received: 02/24/21 11:30 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	0.135U ± 0.163 (0.340) C:97% T:NA	pCi/L	03/26/21 07:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.313U ± 0.359 (0.751) C:77% T:77%	pCi/L	03/11/21 11:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.448U ± 0.522 (1.09)	pCi/L	03/26/21 15:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02263 MW-17 **Lab ID: 92524191007** Collected: 02/02/21 14:35 Received: 02/24/21 11:30 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	2.12 ± 0.554 (0.505) C:87% T:NA	pCi/L	03/26/21 07:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.411U ± 0.392 (0.797) C:72% T:78%	pCi/L	03/11/21 11:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.53 ± 0.946 (1.30)	pCi/L	03/26/21 15:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02264 PZ-22 **Lab ID: 92524191008** Collected: 02/02/21 16:32 Received: 02/24/21 11:30 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	0.404U ± 0.256 (0.455) C:90% T:NA	pCi/L	03/26/21 07:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.604U ± 0.407 (0.778) C:74% T:85%	pCi/L	03/11/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.01U ± 0.663 (1.23)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02265 MW-12V **Lab ID: 92524191009** Collected: 02/01/21 12:55 Received: 02/24/21 11:30 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	0.498 ± 0.222 (0.286) C:96% T:NA	pCi/L	03/26/21 07:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.446U ± 0.428 (0.874) C:72% T:75%	pCi/L	03/11/21 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.944U ± 0.650 (1.16)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02266 MW-12V DIS **Lab ID: 92524191010** Collected: 02/01/21 12:55 Received: 02/24/21 11:30 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	0.463 ± 0.260 (0.449) C:97% T:NA	pCi/L	03/26/21 08:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.187U ± 0.333 (0.728) C:75% T:88%	pCi/L	03/11/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.650U ± 0.593 (1.18)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02267 MW-12 **Lab ID: 92524191011** Collected: 02/01/21 15:37 Received: 02/24/21 11:30 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	0.300 ± 0.182 (0.283) C:91% T:NA	pCi/L	03/26/21 08:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.646U ± 0.410 (0.771) C:78% T:83%	pCi/L	03/11/21 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.946U ± 0.592 (1.05)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02268 MW-9V **Lab ID: 92524191012** Collected: 02/02/21 09:47 Received: 02/24/21 11:30 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	0.154U ± 0.157 (0.310) C:88% T:NA	pCi/L	03/26/21 08:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.0203U ± 0.348 (0.812) C:75% T:88%	pCi/L	03/11/21 11:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.154U ± 0.505 (1.12)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02269 MW-40H **Lab ID: 92524191013** Collected: 02/02/21 11:09 Received: 02/24/21 11:30 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	0.368U ± 0.227 (0.398) C:94% T:NA	pCi/L	03/26/21 08:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.00104U ± 0.345 (0.799) C:78% T:86%	pCi/L	03/11/21 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.369U ± 0.572 (1.20)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02270 MW-8 **Lab ID: 92524191014** Collected: 02/02/21 12:35 Received: 02/24/21 11:30 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	0.223U ± 0.187 (0.356) C:93% T:NA	pCi/L	03/26/21 08:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.116U ± 0.320 (0.771) C:74% T:90%	pCi/L	03/11/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.223U ± 0.507 (1.13)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02271 MW-24H **Lab ID: 92524191015** Collected: 02/02/21 14:15 Received: 02/24/21 11:30 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	0.558 ± 0.234 (0.266) C:95% T:NA	pCi/L	03/26/21 09:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.467U ± 0.394 (0.793) C:76% T:85%	pCi/L	03/11/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.03U ± 0.628 (1.06)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02272 MW-24H DUP **Lab ID: 92524191016** Collected: 02/02/21 14:15 Received: 02/24/21 11:30 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	0.449 ± 0.233 (0.358) C:95% T:NA	pCi/L	03/26/21 08:11	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0345U ± 0.274 (0.636) C:75% T:89%	pCi/L	03/11/21 11:24	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.484U ± 0.507 (0.994)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02430 MW-42H **Lab ID: 92524191017** Collected: 02/03/21 09:20 Received: 02/24/21 11:30 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	0.194U ± 0.151 (0.260) C:95% T:NA	pCi/L	03/26/21 07:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.281U ± 0.335 (0.704) C:72% T:89%	pCi/L	03/11/21 11:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.475U ± 0.486 (0.964)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02430 MW-42H MS **Lab ID: 92524191018** Collected: 02/03/21 09:20 Received: 02/24/21 11:30 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	89.60 %REC ± NA (NA) C:NA T:NA	pCi/L	03/26/21 07:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	101.40 %REC ± NA (NA) C:NA	pCi/L	03/11/21 11:25	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02430 MW-42H MSD **Lab ID: 92524191019** Collected: 02/03/21 09:20 Received: 02/24/21 11:30 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	103.87 %REC 14.75RPD ± NA (NA) C:NA T:NA	pCi/L	03/26/21 07:40	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	101.04 %REC 0.35 RPD ± NA (NA) C:NA	pCi/L	03/11/21 11:25	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02431 MW-29H **Lab ID: 92524191020** Collected: 02/03/21 10:46 Received: 02/24/21 11:30 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	0.0549U ± 0.147 (0.352) C:87% T:NA	pCi/L	03/26/21 09:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0471U ± 0.320 (0.734) C:83% T:84%	pCi/L	03/11/21 11:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.102U ± 0.467 (1.09)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02432 FB-1 **Lab ID: 92524191021** Collected: 02/03/21 11:45 Received: 02/24/21 11:30 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	-0.0123U ± 0.0847 (0.254) C:98% T:NA	pCi/L	03/26/21 09:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.382U ± 0.326 (0.652) C:77% T:91%	pCi/L	03/17/21 11:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.382U ± 0.411 (0.906)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02433 MW-18V **Lab ID: 92524191022** Collected: 02/03/21 12:00 Received: 02/24/21 11:30 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	0.219U ± 0.150 (0.231) C:98% T:NA	pCi/L	03/26/21 09:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.702U ± 0.422 (0.764) C:72% T:84%	pCi/L	03/17/21 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.921U ± 0.572 (0.995)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02434 MW-6S **Lab ID: 92524191023** Collected: 02/03/21 09:40 Received: 02/24/21 11:30 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	0.285U ± 0.185 (0.292) C:87% T:NA	pCi/L	03/26/21 09:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.204U ± 0.333 (0.723) C:77% T:86%	pCi/L	03/17/21 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.489U ± 0.518 (1.02)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02435 MW-6S DUP **Lab ID: 92524191024** Collected: 02/03/21 09:40 Received: 02/24/21 11:30 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	0.0992U ± 0.123 (0.244) C:77% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.639U ± 0.399 (0.744) C:73% T:91%	pCi/L	03/17/21 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.738U ± 0.522 (0.988)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02436 MW-6D **Lab ID: 92524191025** Collected: 02/03/21 10:40 Received: 02/24/21 11:30 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	0.0675U ± 0.145 (0.340) C:85% T:NA	pCi/L	03/26/21 09:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.579U ± 0.376 (0.707) C:74% T:92%	pCi/L	03/17/21 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.647U ± 0.521 (1.05)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02436 MW-6D MS **Lab ID: 92524191026** Collected: 02/03/21 10:40 Received: 02/24/21 11:30 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	98.74 %REC ± NA (NA) C:NA T:NA	pCi/L	03/26/21 09:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	91.59 %REC ± NA (NA) C:NA T:NA	pCi/L	03/17/21 11:31	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02436 MW-6D MSD **Lab ID: 92524191027** Collected: 02/03/21 10:40 Received: 02/24/21 11:30 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	92.38 %REC 6.65RPD ± NA (NA) C:NA T:NA	pCi/L	03/26/21 09:43	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	92.65 %REC 1.15 RPD ± NA (NA) C:NA T:NA	pCi/L	03/17/21 11:32	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02437 MW-6V **Lab ID: 92524191028** Collected: 02/03/21 13:25 Received: 02/24/21 11:30 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	0.172U ± 0.161 (0.309) C:95% T:NA	pCi/L	03/26/21 09:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0275U ± 0.307 (0.709) C:78% T:94%	pCi/L	03/17/21 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.200U ± 0.468 (1.02)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02438 MW-23H **Lab ID: 92524191029** Collected: 02/03/21 14:50 Received: 02/24/21 11:30 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	0.269U ± 0.224 (0.438) C:84% T:NA	pCi/L	03/26/21 09:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.498U ± 0.342 (0.649) C:74% T:94%	pCi/L	03/17/21 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.767U ± 0.566 (1.09)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02895 MW-19 **Lab ID: 92524191030** Collected: 02/08/21 10:08 Received: 02/24/21 11:30 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	0.276U ± 0.207 (0.379) C:88% T:NA	pCi/L	03/26/21 09:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.671U ± 0.381 (0.680) C:71% T:91%	pCi/L	03/17/21 11:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.947U ± 0.588 (1.06)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02896 MW-19 DUP **Lab ID: 92524191031** Collected: 02/08/21 10:08 Received: 02/24/21 11:30 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	0.332U ± 0.223 (0.391) C:86% T:NA	pCi/L	03/26/21 09:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.148U ± 0.298 (0.658) C:82% T:92%	pCi/L	03/17/21 14:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.480U ± 0.521 (1.05)	pCi/L	03/26/21 15:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02897 MW-18 **Lab ID: 92524191032** Collected: 02/08/21 12:57 Received: 02/24/21 11:30 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	0.133U ± 0.149 (0.291) C:74% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.514U ± 0.334 (0.627) C:79% T:94%	pCi/L	03/17/21 14:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.647U ± 0.483 (0.918)	pCi/L	03/26/21 15:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02897 MW-18 MS **Lab ID: 92524191033** Collected: 02/08/21 12:57 Received: 02/24/21 11:30 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	92.09 %REC ± NA (NA) C:NA T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	85.62 %REC ± NA (NA) C:NA T:NA	pCi/L	03/17/21 14:45	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02897 MW-18 MSD **Lab ID: 92524191034** Collected: 02/08/21 12:57 Received: 02/24/21 11:30 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	103.28 %REC 11.46RPD ± NA (NA) C:NA T:NA	pCi/L	03/26/21 09:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	83.47 %REC 2.54 RPD ± NA (NA) C:NA T:NA	pCi/L	03/17/21 14:45	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02898 MW-21 **Lab ID: 92524191035** Collected: 02/08/21 15:03 Received: 02/24/21 11:30 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	0.402 ± 0.199 (0.235) C:92% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.265U ± 0.338 (0.718) C:74% T:94%	pCi/L	03/17/21 14:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.667U ± 0.537 (0.953)	pCi/L	03/26/21 15:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02899 EB-1 **Lab ID: 92524191036** Collected: 02/08/21 16:05 Received: 02/24/21 11:30 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	0.0364U ± 0.105 (0.260) C:92% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.426U ± 0.359 (0.718) C:76% T:90%	pCi/L	03/17/21 14:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.462U ± 0.464 (0.978)	pCi/L	03/26/21 15:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02900 MW-21V **Lab ID: 92524191037** Collected: 02/09/21 11:22 Received: 02/24/21 11:30 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	0.138U ± 0.167 (0.351) C:89% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.729 ± 0.396 (0.702) C:75% T:90%	pCi/L	03/17/21 14:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.867U ± 0.563 (1.05)	pCi/L	03/26/21 15:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02901 MW-15 **Lab ID: 92524191038** Collected: 02/09/21 13:35 Received: 02/24/21 11:30 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	0.190U ± 0.153 (0.268) C:95% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.252U ± 0.304 (0.639) C:79% T:92%	pCi/L	03/17/21 14:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.442U ± 0.457 (0.907)	pCi/L	03/26/21 15:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02902 MW-15V **Lab ID: 92524191039** Collected: 02/09/21 15:05 Received: 02/24/21 11:30 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	0.300 ± 0.167 (0.214) C:99% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.250U ± 0.290 (0.606) C:76% T:97%	pCi/L	03/17/21 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.550U ± 0.457 (0.820)	pCi/L	03/26/21 15:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02903 MW-41HS **Lab ID: 92524191040** Collected: 02/08/21 12:30 Received: 02/24/21 11:30 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	0.171U ± 0.150 (0.261) C:80% T:NA	pCi/L	03/26/21 09:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.319U ± 0.313 (0.639) C:76% T:89%	pCi/L	03/17/21 14:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.490U ± 0.463 (0.900)	pCi/L	03/26/21 15:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02904 MW-41HD **Lab ID: 92524191041** Collected: 02/08/21 14:00 Received: 02/24/21 11:30 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	-0.122U ± 0.198 (0.647) C:92% T:NA	pCi/L	03/26/21 07:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.409U ± 0.315 (0.615) C:76% T:92%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.409U ± 0.513 (1.26)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02905 MW-41HD DUP **Lab ID: 92524191042** Collected: 02/08/21 14:00 Received: 02/24/21 11:30 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	0.205U ± 0.202 (0.414) C:92% T:NA	pCi/L	03/26/21 07:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.113U ± 0.266 (0.593) C:78% T:95%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.318U ± 0.468 (1.01)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02906 MW-38H **Lab ID: 92524191043** Collected: 02/09/21 10:22 Received: 02/24/21 11:30 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	0.373 ± 0.213 (0.335) C:96% T:NA	pCi/L	03/26/21 07:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.373U ± 0.358 (0.732) C:71% T:86%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.746U ± 0.571 (1.07)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB02907 MW-26H **Lab ID: 92524191044** Collected: 02/09/21 12:52 Received: 02/24/21 11:30 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	0.355 ± 0.212 (0.347) C:97% T:NA	pCi/L	03/26/21 07:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.319U ± 0.385 (0.817) C:74% T:90%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.674U ± 0.597 (1.16)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03095 MW-25HA **Lab ID: 92524191045** Collected: 02/10/21 11:19 Received: 02/24/21 11:30 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	0.0858U ± 0.142 (0.319) C:93% T:NA	pCi/L	03/26/21 08:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.336U ± 0.349 (0.722) C:76% T:96%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.422U ± 0.491 (1.04)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03096 PZ-18 **Lab ID: 92524191046** Collected: 02/10/21 13:52 Received: 02/24/21 11:30 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	0.224U ± 0.231 (0.482) C:91% T:NA	pCi/L	03/26/21 07:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.549U ± 0.350 (0.657) C:78% T:92%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.773U ± 0.581 (1.14)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03097 MW-32H **Lab ID: 92524191047** Collected: 02/10/21 15:23 Received: 02/24/21 11:30 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	0.0401U ± 0.153 (0.378) C:81% T:NA	pCi/L	03/26/21 07:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.506U ± 0.422 (0.847) C:74% T:82%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.546U ± 0.575 (1.23)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03098 MW-16S **Lab ID: 92524191048** Collected: 02/10/21 13:07 Received: 02/24/21 11:30 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	0.161U ± 0.171 (0.347) C:92% T:NA	pCi/L	03/26/21 07:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.469U ± 0.320 (0.611) C:78% T:95%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.630U ± 0.491 (0.958)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03099 MW-16D **Lab ID: 92524191049** Collected: 02/10/21 15:50 Received: 02/24/21 11:30 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	0.207U ± 0.167 (0.302) C:96% T:NA	pCi/L	03/26/21 08:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0784U ± 0.292 (0.664) C:75% T:91%	pCi/L	03/18/21 11:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.285U ± 0.459 (0.966)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03100 MW-16D DIS **Lab ID: 92524191050** Collected: 02/10/21 15:50 Received: 02/24/21 11:30 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	0.0635U ± 0.110 (0.246) C:93% T:NA	pCi/L	03/26/21 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.121U ± 0.310 (0.692) C:79% T:90%	pCi/L	03/18/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.185U ± 0.420 (0.938)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BB03101 FB-4 Lab ID: 92524191051 Collected: 02/10/21 17:00 Received: 02/24/21 11:30 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0537U ± 0.160 (0.384) C:95% T:NA	pCi/L	03/26/21 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.242U ± 0.349 (0.751) C:76% T:86%	pCi/L	03/18/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.296U ± 0.509 (1.14)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03632 MW-36H **Lab ID: 92524191052** Collected: 02/17/21 11:27 Received: 02/24/21 11:30 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	0.0994U ± 0.172 (0.390) C:93% T:NA	pCi/L	03/26/21 08:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.223U ± 0.285 (0.604) C:79% T:88%	pCi/L	03/18/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.322U ± 0.457 (0.994)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03633 MW-28H **Lab ID: 92524191053** Collected: 02/17/21 12:50 Received: 02/24/21 11:30 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	0.430U ± 0.344 (0.705) C:88% T:NA	pCi/L	03/26/21 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.481U ± 0.298 (0.547) C:81% T:94%	pCi/L	03/18/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.911U ± 0.642 (1.25)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03634 MW-30HA **Lab ID: 92524191054** Collected: 02/17/21 14:22 Received: 02/24/21 11:30 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	0.550U ± 0.322 (0.584) C:79% T:NA	pCi/L	03/26/21 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.352U ± 0.281 (0.550) C:79% T:94%	pCi/L	03/18/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.902U ± 0.603 (1.13)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03635 PZ-16 **Lab ID: 92524191055** Collected: 02/17/21 10:35 Received: 02/24/21 11:30 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	0.179U ± 0.178 (0.354) C:92% T:NA	pCi/L	03/26/21 07:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.574U ± 0.388 (0.740) C:77% T:82%	pCi/L	03/18/21 11:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.753U ± 0.566 (1.09)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03636 MW-3 **Lab ID: 92524191056** Collected: 02/17/21 12:45 Received: 02/24/21 11:30 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	0.179U ± 0.153 (0.273) C:93% T:NA	pCi/L	03/26/21 09:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.152U ± 0.324 (0.715) C:81% T:90%	pCi/L	03/18/21 11:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.331U ± 0.477 (0.988)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03637 MW-43H **Lab ID: 92524191057** Collected: 02/17/21 14:20 Received: 02/24/21 11:30 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	0.127U ± 0.158 (0.333) C:92% T:NA	pCi/L	03/26/21 09:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.502U ± 0.377 (0.742) C:85% T:81%	pCi/L	03/18/21 11:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.629U ± 0.535 (1.08)	pCi/L	03/27/21 10:10	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Sample: BB03638 FB-3 **Lab ID: 92524191058** Collected: 02/17/21 15:00 Received: 02/24/21 11:30 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	0.0806U ± 0.130 (0.288) C:90% T:NA	pCi/L	03/26/21 09:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.240U ± 0.303 (0.642) C:83% T:89%	pCi/L	03/18/21 11:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.321U ± 0.433 (0.930)	pCi/L	03/27/21 10:10	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

QC Batch: 436823

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92524191001, 92524191002, 92524191003, 92524191004, 92524191005, 92524191006, 92524191007, 92524191008, 92524191009, 92524191010, 92524191011, 92524191012, 92524191013, 92524191014, 92524191015, 92524191016, 92524191017, 92524191018, 92524191019, 92524191020

METHOD BLANK: 2108398

Matrix: Water

Associated Lab Samples: 92524191001, 92524191002, 92524191003, 92524191004, 92524191005, 92524191006, 92524191007, 92524191008, 92524191009, 92524191010, 92524191011, 92524191012, 92524191013, 92524191014, 92524191015, 92524191016, 92524191017, 92524191018, 92524191019, 92524191020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.326 ± 0.293 (0.592) C:78% T:92%	pCi/L	03/11/21 11:27	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

QC Batch: 436820

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92524191021, 92524191022, 92524191023, 92524191024, 92524191025, 92524191026, 92524191027, 92524191028, 92524191029, 92524191030, 92524191031, 92524191032, 92524191033, 92524191034, 92524191035, 92524191036, 92524191037, 92524191038, 92524191039, 92524191040

METHOD BLANK: 2108394

Matrix: Water

Associated Lab Samples: 92524191021, 92524191022, 92524191023, 92524191024, 92524191025, 92524191026, 92524191027, 92524191028, 92524191029, 92524191030, 92524191031, 92524191032, 92524191033, 92524191034, 92524191035, 92524191036, 92524191037, 92524191038, 92524191039, 92524191040

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.127 ± 0.0868 (0.126) C:97% T:NA	pCi/L	03/26/21 09:39	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

QC Batch: 436824

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92524191021, 92524191022, 92524191023, 92524191024, 92524191025, 92524191026, 92524191027, 92524191028, 92524191029, 92524191030, 92524191031, 92524191032, 92524191033, 92524191034, 92524191035, 92524191036, 92524191037, 92524191038, 92524191039, 92524191040

METHOD BLANK: 2108399

Matrix: Water

Associated Lab Samples: 92524191021, 92524191022, 92524191023, 92524191024, 92524191025, 92524191026, 92524191027, 92524191028, 92524191029, 92524191030, 92524191031, 92524191032, 92524191033, 92524191034, 92524191035, 92524191036, 92524191037, 92524191038, 92524191039, 92524191040

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0760 ± 0.261 (0.630) C:75% T:95%	pCi/L	03/17/21 11:37	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

QC Batch: 436818

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92524191001, 92524191002, 92524191003, 92524191004, 92524191005, 92524191006, 92524191007, 92524191008, 92524191009, 92524191010, 92524191011, 92524191012, 92524191013, 92524191014, 92524191015, 92524191016, 92524191017, 92524191018, 92524191019, 92524191020

METHOD BLANK: 2108392

Matrix: Water

Associated Lab Samples: 92524191001, 92524191002, 92524191003, 92524191004, 92524191005, 92524191006, 92524191007, 92524191008, 92524191009, 92524191010, 92524191011, 92524191012, 92524191013, 92524191014, 92524191015, 92524191016, 92524191017, 92524191018, 92524191019, 92524191020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000907 ± 0.0656 (0.179) C:93% T:NA	pCi/L	03/26/21 07:32	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

QC Batch: 436825

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92524191041, 92524191042, 92524191043, 92524191044, 92524191045, 92524191046, 92524191047, 92524191048, 92524191049, 92524191050, 92524191051, 92524191052, 92524191053, 92524191054, 92524191055, 92524191056, 92524191057, 92524191058

METHOD BLANK: 2108402

Matrix: Water

Associated Lab Samples: 92524191041, 92524191042, 92524191043, 92524191044, 92524191045, 92524191046, 92524191047, 92524191048, 92524191049, 92524191050, 92524191051, 92524191052, 92524191053, 92524191054, 92524191055, 92524191056, 92524191057, 92524191058

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.477 ± 0.317 (0.601) C:80% T:89%	pCi/L	03/18/21 11:20	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

QC Batch: 436821

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92524191041, 92524191042, 92524191043, 92524191044, 92524191045, 92524191046, 92524191047, 92524191048, 92524191049, 92524191050, 92524191051, 92524191052, 92524191053, 92524191054, 92524191055, 92524191056, 92524191057, 92524191058

METHOD BLANK: 2108395

Matrix: Water

Associated Lab Samples: 92524191041, 92524191042, 92524191043, 92524191044, 92524191045, 92524191046, 92524191047, 92524191048, 92524191049, 92524191050, 92524191051, 92524191052, 92524191053, 92524191054, 92524191055, 92524191056, 92524191057, 92524191058

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0866 ± 0.0978 (0.203) C:100% T:NA	pCi/L	03/26/21 07:42	

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QUALIFIERS

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(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: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92524191001	BB02257 MW-31H	EPA 9315	436818		
92524191002	BB02258 MW-2	EPA 9315	436818		
92524191003	BB02259 MW-7	EPA 9315	436818		
92524191004	BB02260 MW-7 DIS	EPA 9315	436818		
92524191005	BB02261 FB-2	EPA 9315	436818		
92524191006	BB02262 MW-17V	EPA 9315	436818		
92524191007	BB02263 MW-17	EPA 9315	436818		
92524191008	BB02264 PZ-22	EPA 9315	436818		
92524191009	BB02265 MW-12V	EPA 9315	436818		
92524191010	BB02266 MW-12V DIS	EPA 9315	436818		
92524191011	BB02267 MW-12	EPA 9315	436818		
92524191012	BB02268 MW-9V	EPA 9315	436818		
92524191013	BB02269 MW-40H	EPA 9315	436818		
92524191014	BB02270 MW-8	EPA 9315	436818		
92524191015	BB02271 MW-24H	EPA 9315	436818		
92524191016	BB02272 MW-24H DUP	EPA 9315	436818		
92524191017	BB02430 MW-42H	EPA 9315	436818		
92524191018	BB02430 MW-42H MS	EPA 9315	436818		
92524191019	BB02430 MW-42H MSD	EPA 9315	436818		
92524191020	BB02431 MW-29H	EPA 9315	436818		
92524191021	BB02432 FB-1	EPA 9315	436820		
92524191022	BB02433 MW-18V	EPA 9315	436820		
92524191023	BB02434 MW-6S	EPA 9315	436820		
92524191024	BB02435 MW-6S DUP	EPA 9315	436820		
92524191025	BB02436 MW-6D	EPA 9315	436820		
92524191026	BB02436 MW-6D MS	EPA 9315	436820		
92524191027	BB02436 MW-6D MSD	EPA 9315	436820		
92524191028	BB02437 MW-6V	EPA 9315	436820		
92524191029	BB02438 MW-23H	EPA 9315	436820		
92524191030	BB02895 MW-19	EPA 9315	436820		
92524191031	BB02896 MW-19 DUP	EPA 9315	436820		
92524191032	BB02897 MW-18	EPA 9315	436820		
92524191033	BB02897 MW-18 MS	EPA 9315	436820		
92524191034	BB02897 MW-18 MSD	EPA 9315	436820		
92524191035	BB02898 MW-21	EPA 9315	436820		
92524191036	BB02899 EB-1	EPA 9315	436820		
92524191037	BB02900 MW-21V	EPA 9315	436820		
92524191038	BB02901 MW-15	EPA 9315	436820		
92524191039	BB02902 MW-15V	EPA 9315	436820		
92524191040	BB02903 MW-41HS	EPA 9315	436820		
92524191041	BB02904 MW-41HD	EPA 9315	436821		
92524191042	BB02905 MW-41HD DUP	EPA 9315	436821		
92524191043	BB02906 MW-38H	EPA 9315	436821		
92524191044	BB02907 MW-26H	EPA 9315	436821		
92524191045	BB03095 MW-25HA	EPA 9315	436821		
92524191046	BB03096 PZ-18	EPA 9315	436821		
92524191047	BB03097 MW-32H	EPA 9315	436821		
92524191048	BB03098 MW-16S	EPA 9315	436821		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GORGAS ASH POND WMWGORAP_1305

Pace Project No.: 92524191

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92524191049	BB03099 MW-16D	EPA 9315	436821		
92524191050	BB03100 MW-16D DIS	EPA 9315	436821		
92524191051	BB03101 FB-4	EPA 9315	436821		
92524191052	BB03632 MW-36H	EPA 9315	436821		
92524191053	BB03633 MW-28H	EPA 9315	436821		
92524191054	BB03634 MW-30HA	EPA 9315	436821		
92524191055	BB03635 PZ-16	EPA 9315	436821		
92524191056	BB03636 MW-3	EPA 9315	436821		
92524191057	BB03637 MW-43H	EPA 9315	436821		
92524191058	BB03638 FB-3	EPA 9315	436821		
92524191001	BB02257 MW-31H	EPA 9320	436823		
92524191002	BB02258 MW-2	EPA 9320	436823		
92524191003	BB02259 MW-7	EPA 9320	436823		
92524191004	BB02260 MW-7 DIS	EPA 9320	436823		
92524191005	BB02261 FB-2	EPA 9320	436823		
92524191006	BB02262 MW-17V	EPA 9320	436823		
92524191007	BB02263 MW-17	EPA 9320	436823		
92524191008	BB02264 PZ-22	EPA 9320	436823		
92524191009	BB02265 MW-12V	EPA 9320	436823		
92524191010	BB02266 MW-12V DIS	EPA 9320	436823		
92524191011	BB02267 MW-12	EPA 9320	436823		
92524191012	BB02268 MW-9V	EPA 9320	436823		
92524191013	BB02269 MW-40H	EPA 9320	436823		
92524191014	BB02270 MW-8	EPA 9320	436823		
92524191015	BB02271 MW-24H	EPA 9320	436823		
92524191016	BB02272 MW-24H DUP	EPA 9320	436823		
92524191017	BB02430 MW-42H	EPA 9320	436823		
92524191018	BB02430 MW-42H MS	EPA 9320	436823		
92524191019	BB02430 MW-42H MSD	EPA 9320	436823		
92524191020	BB02431 MW-29H	EPA 9320	436823		
92524191021	BB02432 FB-1	EPA 9320	436824		
92524191022	BB02433 MW-18V	EPA 9320	436824		
92524191023	BB02434 MW-6S	EPA 9320	436824		
92524191024	BB02435 MW-6S DUP	EPA 9320	436824		
92524191025	BB02436 MW-6D	EPA 9320	436824		
92524191026	BB02436 MW-6D MS	EPA 9320	436824		
92524191027	BB02436 MW-6D MSD	EPA 9320	436824		
92524191028	BB02437 MW-6V	EPA 9320	436824		
92524191029	BB02438 MW-23H	EPA 9320	436824		
92524191030	BB02895 MW-19	EPA 9320	436824		
92524191031	BB02896 MW-19 DUP	EPA 9320	436824		
92524191032	BB02897 MW-18	EPA 9320	436824		
92524191033	BB02897 MW-18 MS	EPA 9320	436824		
92524191034	BB02897 MW-18 MSD	EPA 9320	436824		
92524191035	BB02898 MW-21	EPA 9320	436824		
92524191036	BB02899 EB-1	EPA 9320	436824		
92524191037	BB02900 MW-21V	EPA 9320	436824		
92524191038	BB02901 MW-15	EPA 9320	436824		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92524191039	BB02902 MW-15V	EPA 9320	436824		
92524191040	BB02903 MW-41HS	EPA 9320	436824		
92524191041	BB02904 MW-41HD	EPA 9320	436825		
92524191042	BB02905 MW-41HD DUP	EPA 9320	436825		
92524191043	BB02906 MW-38H	EPA 9320	436825		
92524191044	BB02907 MW-26H	EPA 9320	436825		
92524191045	BB03095 MW-25HA	EPA 9320	436825		
92524191046	BB03096 PZ-18	EPA 9320	436825		
92524191047	BB03097 MW-32H	EPA 9320	436825		
92524191048	BB03098 MW-16S	EPA 9320	436825		
92524191049	BB03099 MW-16D	EPA 9320	436825		
92524191050	BB03100 MW-16D DIS	EPA 9320	436825		
92524191051	BB03101 FB-4	EPA 9320	436825		
92524191052	BB03632 MW-36H	EPA 9320	436825		
92524191053	BB03633 MW-28H	EPA 9320	436825		
92524191054	BB03634 MW-30HA	EPA 9320	436825		
92524191055	BB03635 PZ-16	EPA 9320	436825		
92524191056	BB03636 MW-3	EPA 9320	436825		
92524191057	BB03637 MW-43H	EPA 9320	436825		
92524191058	BB03638 FB-3	EPA 9320	436825		
92524191001	BB02257 MW-31H	Total Radium Calculation	440686		
92524191002	BB02258 MW-2	Total Radium Calculation	440686		
92524191003	BB02259 MW-7	Total Radium Calculation	440686		
92524191004	BB02260 MW-7 DIS	Total Radium Calculation	440686		
92524191005	BB02261 FB-2	Total Radium Calculation	440686		
92524191006	BB02262 MW-17V	Total Radium Calculation	440686		
92524191007	BB02263 MW-17	Total Radium Calculation	440686		
92524191008	BB02264 PZ-22	Total Radium Calculation	440688		
92524191009	BB02265 MW-12V	Total Radium Calculation	440688		
92524191010	BB02266 MW-12V DIS	Total Radium Calculation	440688		
92524191011	BB02267 MW-12	Total Radium Calculation	440688		
92524191012	BB02268 MW-9V	Total Radium Calculation	440688		
92524191013	BB02269 MW-40H	Total Radium Calculation	440688		
92524191014	BB02270 MW-8	Total Radium Calculation	440688		
92524191015	BB02271 MW-24H	Total Radium Calculation	440688		
92524191016	BB02272 MW-24H DUP	Total Radium Calculation	440688		
92524191017	BB02430 MW-42H	Total Radium Calculation	440688		
92524191020	BB02431 MW-29H	Total Radium Calculation	440688		
92524191021	BB02432 FB-1	Total Radium Calculation	440688		
92524191022	BB02433 MW-18V	Total Radium Calculation	440688		
92524191023	BB02434 MW-6S	Total Radium Calculation	440688		
92524191024	BB02435 MW-6S DUP	Total Radium Calculation	440688		
92524191025	BB02436 MW-6D	Total Radium Calculation	440688		
92524191028	BB02437 MW-6V	Total Radium Calculation	440688		
92524191029	BB02438 MW-23H	Total Radium Calculation	440688		
92524191030	BB02895 MW-19	Total Radium Calculation	440688		
92524191031	BB02896 MW-19 DUP	Total Radium Calculation	440688		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GORGAS ASH POND WMWGORAP_1305
Pace Project No.: 92524191

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92524191032	BB02897 MW-18	Total Radium Calculation	440692		
92524191035	BB02898 MW-21	Total Radium Calculation	440692		
92524191036	BB02899 EB-1	Total Radium Calculation	440692		
92524191037	BB02900 MW-21V	Total Radium Calculation	440692		
92524191038	BB02901 MW-15	Total Radium Calculation	440692		
92524191039	BB02902 MW-15V	Total Radium Calculation	440692		
92524191040	BB02903 MW-41HS	Total Radium Calculation	440692		
92524191041	BB02904 MW-41HD	Total Radium Calculation	440748		
92524191042	BB02905 MW-41HD DUP	Total Radium Calculation	440748		
92524191043	BB02906 MW-38H	Total Radium Calculation	440748		
92524191044	BB02907 MW-26H	Total Radium Calculation	440748		
92524191045	BB03095 MW-25HA	Total Radium Calculation	440748		
92524191046	BB03096 PZ-18	Total Radium Calculation	440748		
92524191047	BB03097 MW-32H	Total Radium Calculation	440748		
92524191048	BB03098 MW-16S	Total Radium Calculation	440748		
92524191049	BB03099 MW-16D	Total Radium Calculation	440748		
92524191050	BB03100 MW-16D DIS	Total Radium Calculation	440748		
92524191051	BB03101 FB-4	Total Radium Calculation	440748		
92524191052	BB03632 MW-36H	Total Radium Calculation	440748		
92524191053	BB03633 MW-28H	Total Radium Calculation	440748		
92524191054	BB03634 MW-30HA	Total Radium Calculation	440748		
92524191055	BB03635 PZ-16	Total Radium Calculation	440748		
92524191056	BB03636 MW-3	Total Radium Calculation	440748		
92524191057	BB03637 MW-43H	Total Radium Calculation	440748		
92524191058	BB03638 FB-3	Total Radium Calculation	440748		

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Client Name: Alabama Power Co Proj

WO#: **92524191**

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 9551 01609 8615



Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A 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	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10D1101 NLD 2/25/21 pH < 2
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
-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"/>	
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hex Cr Aqueous sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Initial when completed: <u>NLD</u> Date/time of preservation: <u> </u>	
			Lot # of added preservative: <u> </u>	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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>NLD</u> Date: <u>2/25/21</u> Survey Meter SN: <u>1503</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.

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 Midkiff	Attention: Laura Midkiff
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Catton & Renee Jernigan	Company Name: Alabama Power Co.
Email To: lmidkiff@southernco.com	Purchase Order #: APC57570-0001	Address: 744 Highway 87 GSC Bldg #8
Phone: 205-664-6197	Project Name: Gorgas Ash Pond	Page Quote: CCR
Requested Due Date: 28 days	Project Number: WMMWGORAP 1305	Page Project Manager: Kevin Herring
		Page Profile #:
		Requested Analysis Interval (Y/N):
		State / Location: AL

ITEM #	SAMPLE ID (A-Z, 0-9 / . -) Sample IDs must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	Preservatives							Analyses Test	Residual Chlorine (Y/N)							
				DATE	TIME	DATE	TIME		Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol			Other	EPA 8315	EPA 8320	Total Radium Sum	Matrix Spike/Matrix Spike D		
1	BQ0257 MW-3H	GMG		2/1/2021	12:20	1		X																
2	BQ0258 MW-2	GMG		2/1/2021	14:16	1		X																
3	BQ0259 MW-7	GMG		2/2/2021	13:33	1		X																
4	BQ0260 MW-7 DIS	GMG		2/2/2021	13:33	1		X																
5	BQ0261 FB-2	GMG		2/2/2021	15:00	1		X																
6																								
7																								
8																								
9																								
10																								
11																								
12																								

RELINQUISHED BY/AFFILIATION: <i>Calera Utility (ACU)</i>	DATE: 2/18/21	TIME: 3:15	SIGNATURE: <i>[Signature]</i>
ACCEPTED BY/AFFILIATION: <i>[Signature]</i>			
DATE: 2/24/21		TIME: 11:30 AM	
TEMP in C		SAMPLE CONDITIONS: N N N Y	
Received on Ice (Y/N)		Custody Sealed (Y/N)	
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
 Calera, AL 35040
 Email To: lbmicki@southernco.com
 Phone: 205-664-6197 Fax
 Requested Due Date: 28 days

Section B

Required Project Information:

Report To: Laura Mickiff
 Copy To: Brooke Catton & Renee Jernigan
 Purchase Order #: APC57570-0001
 Project Name: Gorgas Ash Pond
 Project Number: WMMW/GORAP 1305

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: Kevin Herring
 Pace Profile #:

Requested Analysis Filtered (Y/N)

Regulatory Agency

State / Location

Page: 2 of 11

ITEM #	MATRIX	CODE	DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES							ANALYSIS TEST	Y/N	Residual Chlorine (Y/N)	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)		
									H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other							EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D
1	BBO2262 MW-TV	GW G			2/2/2021	13:05	1	Unpreserved															
2	BBO2263 MW-17	GW G			2/2/2021	14:36	1		X	X	X	X											
3	BBO2264 PZ-22	GW G			2/2/2021	16:32	1		X														
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE			TIME			ACCEPTED BY / AFFILIATION			DATE			TIME			SAMPLE CONDITIONS		
			Renee Jernigan			2/18/21			13:15			KPH			2/18/21			11:30			N/A N N Y		

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER:
 DATE Signed:

506
007
004

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: lmidkiff@southemco.com
 Phone: 205-664-6197 Fax: []
 Requested Due Date: 28 days

Section B Required Project Information: Report To: Laura Midkiff
 Copy To: Brooke Caton & Renee Jernigan
 Purchase Order #: APC657570-0001
 Project Name: Gorges Ash Pond
 Project Number: WWWWGORAP 1305

Section C Invoice Information: Attention: Laura Midkiff
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 Face Quarter: CCR
 Face Project Manager: Kevin Herring
 Page Profile #

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, -,) Sample IDs must be unique	MATRIX	CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS								Requested Analytes Filtered (Y/N)					Residual Chlorine (Y/N)	
				START DATE	END DATE		Unpreserved	Preservatives							Analyses Test	Y/N	EPA 9315	EPA 9320	Total Radium Sum		Matrix Spike/Matrix Spike D.
								H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other							
1	BR02265	MM-12V	GMG	2/1/2021	12:55	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	001
2	BR02266	MM-12V DIS	GMG	2/1/2021	12:55	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	002
3	BR02267	MM-12	GMG	2/1/2021	15:57	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	003
4	BR02268	MM-9V	GMG	2/2/2021	9:47	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	004
5	BR02269	MM-40H	GMG	2/2/2021	11:09	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	005
6	BR02270	MM-8	GMG	2/2/2021	12:35	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	006
7	BR02271	MM-24H	GMG	2/2/2021	14:15	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	007
8	BR02272	MM-24H DUP	GMG	2/2/2021	14:15	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	008
9																					
10																					
11																					
12																					

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP In C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Laura Midkiff (MC)	2/18/21	13:15	[Signature]	2/24/21	11:36	NA	N	N	N

SAMPLER NAME AND SIGNATURE: []
 PRINT Name of SAMPLER: []
 SIGNATURE OF SAMPLER: []
 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:

Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8
 Calera, AL 35004
 Email To: lbmickif@southernco.com
 Phone: 205-664-6197 Fax
 Requested Due Date: 28 days

Section B
 Required Project Information:

Report To: Laura Mickif
 Copy To: Brooke Catton & Renee Jernigan
 Purchase Order #: APC57570-0001
 Project Name: Gorgas Ash Pond
 Project Number: WMWGORAP 1305

Section C
 Invoice Information:

Attention: Laura Mickif
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 Pace Queue: CCR
 Pace Project Manager: Kevin Herring
 Pace Profile #:

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analysis Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS					
			START DATE	END DATE			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3					Methanol	Other	EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	TEMP In C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1	BBQ2434	MW-6S	2/3/2021	9:40	1	1	X															
2	BBQ2435	MW-6S DUP	2/3/2021	9:40	1	1	X															
3	BBQ2436	MW-6D	2/3/2021	10:40	3	3	X	X	X													
4	BBQ2437	MW-6V	2/3/2021	13:25	1	1	X	X														
5	BBQ2438	MW-23H	2/3/2021	14:50	1	1	X															
6																						
7																						
8																						
9																						
10																						
11																						
12																						

REQUISITED BY / AFFILIATION: *Karla Miller* DATE: 2/18/21 TIME: 13:15
 ACCEPTED BY / AFFILIATION: *[Signature]* DATE: 2/19/21 TIME: 11:30

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: _____
 SIGNATURE of SAMPLER: _____ 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 Requested Project Information:		Section C Invoice Information:	
Company: Alabama Power Company	Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35004	Report To: Laura Midkiff	Copy To: Brooke Catton & Renee Jermigan	Attention: Laura Midkiff	Company Name: Alabama Power Co.
Phone: 205-664-6197	Fax: 205-664-6197	Purchase Order #: APC57570-0001	Project Name: Gorgas Ash Pond	Address: 744 Highway 87 GSC Bldg #8	State / Location: AL
Requested Due Date: 28 days		Project Number: WMMWGORAP 1305	Face Project Manager: Kevin Herring	Face Project Manager: Kevin Herring	Regulatory Agency: AL
		Matrix Code: G/G	Sample Type: G=GRAB C=COMP	Preservatives:	Requester: [Handwritten Signature]

ITEM #	SAMPLE ID (A-Z, 0-9, /, -) One character per box. Sample IDs must be unique	MATRIX	CODE	COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	Preservatives								Analytes Test	Residual Chlorine (Y/N)	Sample Conditions		
				START DATE	END DATE	UNPRESERVED	H2SO4		HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	EPA 9315	EPA 9320				Total Radium Sum	Matrix Spike/Matrix Spike D
1	BB02895	MM-19	G/M/G	2/8/2021	10:08	1		X	X												
2	BB02896	MM-19 DUP	G/M/G	2/8/2021	10:08	1		X													
3	BB02897	MM-18	G/M/G	2/8/2021	12:57	3		X	X												
4	BB02898	MM-21	G/M/G	2/8/2021	15:03	1		X	X												
5	BB02899	EB-1	G/M/G	2/8/2021	16:05	1		X	X												
6	BB02900	MM-21V	G/M/G	2/8/2021	14:22	1		X	X												
7	BB02901	MM-15	G/M/G	2/8/2021	13:35	1		X	X												
8	BB02902	MM-15V	G/M/G	2/8/2021	15:05	1		X													
9																					
10																					
11																					
12																					

REINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP IN C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
[Handwritten Signature]	2/18/21	13:15	[Handwritten Signature]	2/24/21	11:30	17.1	N	N	N

Page : 6 Of 11

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: lbndickf@southemco.com
 Phone: 205-664-6197 Fax
 Requested Due Date: 28 days

Section B Required Project Information:
 Report To: Laura Mickiff
 Copy To: Brooke Catron & Renee Jernigan
 Purchase Order #: APC67570-0001
 Project Name: Gorgas Ash Pond
 Project Number: WMMWGORAP 1305

Section C Invoice Information:
 Attention: Laura Mickiff
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 POC: CCR
 Page Project Manager: Kevin Herring
 Page Profile #:

Regulatory Agency:
 State / Location: AL

Page : 7 of 11

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, /, -) Sample IDs must be unique	MATRIX Drinking Water Water Waste Water Product Solid/Slud Oil Wipe Air Pest Tissue	CODE DW WT WW P SL OL WP AR TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	Unpreserved	Preservatives						Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	Residual Chlorine (Y/N)	TEMP In C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)											
						DATE	TIME	DATE	TIME			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol											Other										
1	BB02903			MMW-41HS	GW/G		2/9/2021	12:30		1		X						X																				
2	BB02904			MMW-41HD	GW/G		2/9/2021	14:00		1		X						X																				
3	BB02905			MMW-41HD DUP	GW/G		2/9/2021	14:00		1		X						X																				
4	BB02906			MMW-38H	GW/G		2/9/2021	10:22		1		X						X																				
5	BB02907			MMW-29H	GW/G		2/9/2021	12:52		1		X						X																				
6																																						
7																																						
8																																						
9																																						
10																																						
11																																						
12																																						
ADDITIONAL COMMENTS		RETIQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS																												
		Laura Mickiff		2/18/21	13:15	[Signature]		2/18/21	11:30	NAT N Y																												

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed:
SIGNATURE of SAMPLER: [Signature]	

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: jbmickif@southemco.com
 Phone: 205-664-6197 Fax
 Requested Due Date: 28 days

Section B
 Required Project Information:
 Report To: Laura Mickif
 Copy To: Brooke Caton & Renee Jernigan
 Project Name: Gorgas Ash Pond
 Project Number: WMWGORAP 1305

Section C
 Invoice Information:
 Attention: Laura Mickif
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 Pace Quote: CCR
 Pace Project Manager: Kevin Herring
 Pace Profile #:

Page: 9 Of 11

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, /, -) Sample IDs must be unique	MATRIX Drinking Water Waste Water Product Soil/Solid Oil Wipe Air Other Tissue	COPE DT WT WW P SL OL WP AR OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analyses Test	Requested Analysis Filtered (Y/N)	AL	Regulatory Agency	State / Location	
				DATE			TIME	DATE									TIME
1	B803098	MM-16S	GW/G	MM-16S	GW/G	2/10/2021	13:07			1	X	X	X	X			
2	B803099	MM-16D	GW/G	MM-16D	GW/G	2/10/2021	15:50			1	X	X	X	X			
3	B803100	MM-16D DIS	GW/G	MM-16D DIS	GW/G	2/10/2021	15:50			1	X	X	X	X			
4	B803101	FB-4	GW/G	FB-4	GW/G	2/10/2021	17:00			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	
							13:15							11:30			
SAMPLER NAME AND SIGNATURE																	
PRINT Name of SAMPLER:																	
SIGNATURE of SAMPLER:																	
DATE Signed:																	
TEMP In C																	
Received on Ice (Y/N)																	
Custody Sealed Cooler (Y/N)																	
Samples Intact (Y/N)																	

648
446
680
657

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 35004
 Email To: lbmicki@alpower.com
 Phone: 205-684-6197 Fax
 Requested Due Date: 28 days

Section B

Required Project Information:
 Report To: Laura Mickitt
 Copy To: Brooke Caton & Renee Jernigan
 Purchase Order #: APC67570-0001
 Project Name: Gorgas Ash Pond
 Project Number: WMWGORAP 1305

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: Kevin Herring
 Pace Profile #:
 Regulatory Agency
 State Location
 AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives									Analyses Test	Y/N	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)													
				START DATE	END TIME			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	EPA 9315			EPA 9320	Total Radium Sum		Matrix Spike/Matrix Spike D												
																							DATE	TIME	DATE	TIME								
1	BR03632	MM-3SH	GW/G			11:27	1	X									X																	
2	BR03633	MM-29H	GW/G			12:50	1	X									X																	
3	BR03634	MM-30HA	GW/G			14:22	1	X									X																	
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		
ADDITIONAL COMMENTS				REINQUISHED BY/AFFILIATION	DATE	TIME	ACCEPTED BY/AFFILIATION	DATE	TIME	SAMPLE CONDITIONS																								
				Laura Mickitt	2/18/21	13:15	MA	2/24/21	11:35	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

SAMPLER NAME AND SIGNATURE
 PRINT NAME of SAMPLER:
 SIGNATURE of SAMPLER:
 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: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040 Email To: lbmickit@southernco.com Phone: 205-664-6197 Fax Requested Due Date: 28 days	Section B Required Project Information: Report To: Laura Mickitt Copy To: Brooke Catton & Renee Jermigan Purchase Order #: APC57570-0001 Project Name: Gorgas Ash Pond Project Number: WMMWGORAP 1305
Section C Invoice Information: Attention: Laura Mickitt Company Name: Alabama Power Co Address: 744 Highway 87 GSC Bldg #8 Pace Queue: CCR Pace Project Manager: Kevin Herring Pace Profile #:	Regulatory Agency: State / Location: All

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -)	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
						START DATE	END DATE			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol				Other	Analyses Test
1	BB03635	PZ-16	GM/G	GM/G		2/17/2021	10:35	1	X	X	X	X	X	X	X	X	X	X	055
2	BB03635	MM-3	GM/G	GM/G		2/17/2021	12:45	1	X	X	X	X	X	X	X	X	X	X	056
3	BB03637	MM-43H	GM/G	GM/G		2/17/2021	14:20	1	X	X	X	X	X	X	X	X	X	X	057
4	BB03638	FB-3	GM/G	GM/G		2/17/2021	15:00	1	X	X	X	X	X	X	X	X	X	X	058
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

REINQUISHED BY / AFFILIATION: <i>Laura Mickitt</i> DATE: 2/18/21 TIME: 13:15	ACCEPTED BY / AFFILIATION: <i>Kevin Herring</i> DATE: 2/21/21 TIME: 11:30 AM		
SAMPLER NAME AND SIGNATURE: _____ PRINT Name of SAMPLER: _____ SIGNATURE of SAMPLER: _____ DATE Signed: _____			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: LAL
Date: 3/5/2021
Worklist: 59056
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2108392
MB Concentration:	0.001
MB Counting Uncertainty:	0.066
MB MDC:	0.179
MB Numerical Performance Indicator:	0.03
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?
Count Date:	3/26/2021	LCSD59056
Spike ID:	19-033	3/26/2021
Decay Corrected Spike Concentration (pCi/mL):	24.039	19-033
Volume Used (mL):	0.10	24.039
Aliquot Volume (L, g, F):	0.502	0.10
Target Conc. (pCi/L, g, F):	4.787	0.507
Uncertainty (Calculated):	0.057	4.742
Result (pCi/L, g, F):	4.725	0.057
LCSD Counting Uncertainty (pCi/L, g, F):	0.455	4.437
Numerical Performance Indicator:	-0.27	4.437
Percent Recovery:	98.69%	-1.35
Status vs Numerical Indicator:	N/A	93.56%
Status vs Recovery:	Pass	N/A
Upper % Recovery Limits:	125%	Pass
Lower % Recovery Limits:	75%	125%

Duplicate Sample Assessment	
Sample ID:	LCSD59056
Duplicate Sample ID:	LCSD59056
Sample Result (pCi/L, g, F):	4.725
Sample Result Counting Uncertainty (pCi/L, g, F):	0.455
Sample Duplicate Result (pCi/L, g, F):	4.437
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.441
Are sample and/or duplicate results below R _L ?	NO
Duplicate Numerical Performance Indicator:	0.890
(Based on the LCSD Counting Uncertainty) Duplicate RPD:	5.34%
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:	2/3/2021	MS/MSD 1	MS/MSD 2
Sample ID:	92524191017	92524191017	92524191018
Sample MS ID:	92524191018	92524191018	92524191019
Sample MSD ID:	92524191019	92524191019	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19-033	19-033	
Spike Volume Used in MS (mL):	24.040	24.040	
Spike Volume Used in MSD (mL):	0.20	0.20	
MS Aliquot (L, g, F):	0.321	0.321	
MS Target Conc. (pCi/L, g, F):	14.995	14.995	
MSD Aliquot (L, g, F):	0.317	0.317	
MSD Target Conc. (pCi/L, g, F):	15.190	15.190	
MS Spike Uncertainty (calculated):	0.180	0.180	
MSD Spike Uncertainty (calculated):	0.182	0.182	
Sample Result:	0.194	0.194	
Sample Matrix Spike Result:	0.149	0.149	
Sample Matrix Spike Result:	13.829	13.829	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.017	1.017	
Sample Matrix Spike Duplicate Result:	15.972	15.972	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.105	1.105	
MS Numerical Performance Indicator:	-2.930	-2.930	
MSD Numerical Performance Indicator:	89.60%	89.60%	
MS Percent Recovery:	103.87%	103.87%	
MSD Percent Recovery:	N/A	N/A	
MS Status vs Numerical Indicator:	N/A	N/A	
MS Status vs Numerical Indicator:	Pass	Pass	
MS Status vs Recovery:	Pass	Pass	
MS/MSD Upper % Recovery Limits:	125%	125%	
MS/MSD Lower % Recovery Limits:	75%	75%	

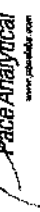
Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample ID:	92524191017
Sample MS ID:	92524191018
Sample MSD ID:	92524191019
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	13.629
Sample Matrix Spike Result:	1.017
Sample Matrix Spike Duplicate Result:	15.972
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	1.105
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	-3.058
Duplicate Numerical Performance Indicator:	14.75%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	N/A
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
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:

Handwritten: OK 3/26/21

Quality Control Sample Performance Assessment



Test: Re-226
Analyst: LAL
Date: 3/5/2021
Worklist: 59057
Matrix: DW

Method Blank Assessment	
MB Sample ID	2108394
MB Concentration:	0.127
M/B Counting Uncertainty:	0.085
MB MDC:	0.126
MB Numerical Performance Indicator:	2.94
MB Status vs Numerical Indicator:	N/A
M/B Status vs. MDC:	See Comment

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS59057	LCS069057
Count Date:	3/25/2021	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/ml):	24.039	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.505	
Target Conc. (pCi/L, g, F):	4.757	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.625	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.457	
Numerical Performance Indicator:	-0.56	
Percent Recovery:	97.22%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment	Enter Duplicate sample IDs # other than LCS/LCSD in the space below.
Sample I.D.:	
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result Counting Uncertainty (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:	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/3/2021	2/8/2021
Sample I.D.:	92524191025	92524191032
Sample MS I.D.:	92524191026	92524191033
Sample MSD I.D.:	92524191027	92524191034
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/ml):	24.040	24.040
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):	0.316	0.312
MS Target Conc. (pCi/L, g, F):	15.232	15.408
MSD Aliquot (L, g, F):	0.301	0.310
MSD Target Conc. (pCi/L, g, F):	15.985	15.520
MS Spike Uncertainty (calculated):	0.183	0.185
MSD Spike Uncertainty (calculated):	0.192	0.186
Sample Result Counting Uncertainty (pCi/L, g, F):	0.068	0.133
Sample Matrix Spike Result:	0.145	0.147
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.067	1.046
Sample Matrix Spike Duplicate Result:	14.844	16.163
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.067	1.122
MS Numerical Performance Indicator:	-0.346	-2.227
MSD Numerical Performance Indicator:	-2.185	0.870
MS Percent Recovery:	98.74%	92.08%
MSD Percent Recovery:	92.36%	103.26%
MS Status vs Numerical Indicator:	N/A	N/A
MSD Status vs Numerical Indicator:	N/A	N/A
MS Status vs Recovery:	Pass	Pass
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	MS/MSD 1	MS/MSD 2
Sample I.D.:	92524191025	92524191032
Sample MS I.D.:	92524191026	92524191033
Sample MSD I.D.:	92524191027	92524191034
Spike I.D.:	15.107	14.323
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.067	1.046
Sample Matrix Spike Duplicate Result:	14.844	16.163
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.067	1.122
Matrix Spike Duplicate Result Numerical Performance Indicator:	0.342	-2.351
Duplicate Numerical Performance Indicator:	6.65%	11.46%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	N/A	N/A
MS/MSD Duplicate Status vs Numerical Indicator:	Pass	Pass
MS/MSD Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

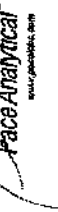
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*The method blank result is below the reporting limit for this analysis and is acceptable.

LAN 3/26/21

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 3/5/2021
Worksheet: 59058
Matrix: DW

Method Blank Assessment	
MB Sample ID	2106396
MB Concentration:	0.087
MB Counting Uncertainty:	0.097
MB MDC:	0.203
MB Numerical Performance Indicator:	1.75
MB Status vs Numerical Indicator:	N/A
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	n
LCSD59058	LCSD59058
Count Date:	3/26/2021
Spike I.D.:	19-083
Decay Corrected Spike Concentration (pCi/mL):	24.039
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.511
Target Conc. (pCi/L, g, F):	4.700
Uncertainty (Calculated):	0.056
Result (pCi/L, g, F):	4.357
LCSD Counting Uncertainty (pCi/L, g, F):	0.439
Numerical Performance Indicator:	-1.52
Percent Recovery:	92.70%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limit:	125%
Lower % Recovery Limit:	75%

Duplicate Sample Assessment	
Sample I.D.:	92524191041
Duplicate Sample I.D.:	92524191041DUP
Sample Result (pCi/L, g, F):	-0.122
Sample Duplicate Result (pCi/L, g, F):	0.197
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.112
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.235
Are a sample and/or duplicate results below RL?	See Below #
Duplicate Numerical Performance Indicator:	-1.495
Duplicate RPD:	-4616.89%
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.

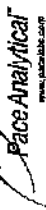
Comments:

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Spike I.D.: 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): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Numerical Performance Indicator: 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 Limit: MS/MSD Lower % Recovery Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Matrix Spike Result: Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Numerical Performance Indicator: Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

Handwritten notes:
LAL
3/26/21

Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226
Analyst: LAL
Date: 3/5/2021
Worklist: 59056
Matrix: DW

Method Blank Assessment	
MB Sample ID	2108395
MB Concentration:	0.087
M/B Counting Uncertainty:	0.097
MB MDC:	0.203
MB Numerical Performance Indicator:	1.75
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS#	Y
LCS59058	LCS59058
Count Date:	3/26/2021
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.039
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.520
Target Conc. (pCi/L, g, F):	4.626
Uncertainty (Calculated):	0.056
Result (pCi/L, g, F):	4.776
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.469
Numerical Performance Indicator:	0.62
Percent Recovery:	103.25%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate
Duplicate Sample I.D.:	sample IDs if
Sample Result (pCi/L, g, F):	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	LCS#LCS# in
Sample Duplicate Result (pCi/L, g, F):	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	92524191041
Are sample and/or duplicate results below RL?	92524191041DUP
Duplicate Numerical Performance Indicator:	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment	
Sample Collection Data:	MS/MSD 1
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/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):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (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:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD 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:

12/15/2021
LAL

Quality Control Sample Performance Assessment



Analyst must manually enter ALL fields highlighted in yellow.

Test: Ra-228
Analyst: VAL
Date: 3/8/2021
Worklist: 59060
Matrix: WT

Method Blank Assessment	
MB Sample ID	2108398
MB concentration:	0.328
M/B 2 Sigma CSU:	0.293
MB MDC:	0.592
MB Numerical Performance Indicator:	2.18
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSID (Y or N)7	N
LCS49060	LCS49060
Count Date:	3/11/2021
Spike ID.:	21-003
Decay Corrected Spike Concentration (pCi/mL):	38.509
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.804
Target Conc. (pCi/L, g, F):	4.789
Uncertainty (Calculated):	0.235
Result (pCi/L, g, F):	4.994
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.087
Numerical Performance Indicator:	0.36
Percent Recovery:	104.28%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	133%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample ID.:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample ID.:	
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	
Sample Collection Date:	MS/MSD 1 2/8/2021
Sample ID.:	MS/MSD 2 92524191017
Sample MS ID.:	92524191018
Sample MSD ID.:	92524191019
Spike ID.:	21-003
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	38.970
Spike Volume Used in MS (mL):	0.20
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.757
MS Target Conc. (pCi/L, g, F):	10.293
MSD Aliquot (L, g, F):	0.751
MSD Target Conc. (pCi/L, g, F):	10.380
MS Spike Uncertainty (calculated):	0.504
MSD Spike Uncertainty (calculated):	0.509
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.281
Sample Matrix Spike Result:	0.335
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	10.718
Sample Matrix Spike Duplicate Result:	2.144
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	10.770
MS Numerical Performance Indicator:	2.138
MSD Numerical Performance Indicator:	0.126
MS Percent Recovery:	0.096
MSD Percent Recovery:	101.40%
MS Status vs Numerical Indicator:	101.04%
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 ID.:	92524191017
Sample MS ID.:	92524191018
Sample MSD ID.:	92524191019
Spike ID.:	10.718
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.144
Sample Matrix Spike Duplicate Result:	10.770
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	2.138
Duplicate Numerical Performance Indicator:	-0.034
Duplicate Numerical Performance Indicator:	0.36%
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:

3/8/21

10/10/21

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 3/11/2021
Worklist: 59061
Matrix: WT



Method Blank Assessment	
MB Sample ID	2108369
MB concentration:	-0.076
M/B 2 Sigma CSU:	0.261
MB MDC:	0.630
MB Numerical Performance Indicator:	-0.57
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD IV or N1?	N
		LCSD59061	LCSD59061
Count Date:	3/17/2021	
Spike I.D.:	21-003	
Decay Corrected Spike Concentration (pCi/mL):	38.453	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.907	
Target Conc. (pCi/L, g, F):	4.764	
Uncertainty (Calculated):	0.238	
Result (pCi/L, g, F):	4.737	
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.071	
Numerical Performance Indicator:	-0.05	
Percent Recovery:	99.42%	
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 LCSD/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.

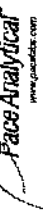
Comments:

Handwritten notes: *3/10/21*

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/3/2021	2/8/2021
Sample I.D.:	92524191025	92524191032
Sample MS I.D.:	92524191026	92524191033
Sample MSD I.D.:	92524191027	92524191034
Spike I.D.:	21-003	21-003
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	38.969	38.969
Spike Volume Used in MS (mL):	0.20	0.20
MS Aliquot (L, g, F):	0.761	0.766
MS Target Conc. (pCi/L, g, F):	10.244	10.170
MSD Aliquot (L, g, F):	0.776	0.762
MSD Target Conc. (pCi/L, g, F):	10.044	10.229
MS Spike Uncertainty (calculated):	0.502	0.498
MSD Spike Uncertainty (calculated):	0.492	0.501
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.579	0.514
Sample Matrix Spike Result:	0.376	0.334
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	9.962	9.221
Sample Matrix Spike Duplicate Result:	2.004	1.863
Sample Matrix Spike Duplicate Result:	9.865	9.052
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.966	1.829
MS Numerical Performance Indicator:	-0.804	-1.451
MSD Numerical Performance Indicator:	-0.689	-1.721
MS Percent Recovery:	91.59%	85.62%
MSD Percent Recovery:	92.65%	83.47%
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.:	92524191025
Sample MS I.D.:	92524191026
Sample MSD I.D.:	92524191027
Spike I.D.:	9.962
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	2.004
Sample Matrix Spike Duplicate Result:	9.865
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.966
Duplicate Numerical Performance Indicator:	0.053
Duplicate Status vs Numerical Indicator:	1.15%
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228
Analyst: VAL
Date: 3/15/2021
Worklist: 59062
Matrix: WT

Method Blank Assessment	
MB Sample ID	210B402
MB concentration:	0.477
MB 2 Sigma CSU:	0.317
MB MDC:	0.601
MB Numerical Performance Indicator:	2.95
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS (Y or N)?		Y
	LCS59062	LCS210B402	
Count Date:	3/18/2021	3/18/2021	
Spike ID:	21-003	21-003	
Decay Corrected Spike Concentration (pCi/mL):	38.420	38.420	
Volume Used (mL):	0.10	0.10	
Aliquot Volume (L, g, F):	0.811	0.818	
Target Conc. (pCi/L, g, F):	4.736	4.888	
Uncertainty (Calculated):	0.232	0.230	
Result (pCi/L, g, F):	5.094	4.278	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.086	0.957	
Numerical Performance Indicator:	0.63	-0.82	
Percent Recovery:	107.54%	91.19%	
Status vs Numerical Indicator:	Pass	N/A	
Status vs Recovery:	135%	Pass	
Upper % Recovery Limits:	135%	135%	
Lower % Recovery Limits:	60%	60%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample ID:	
Duplicate Sample ID:	
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:	
(Based on the LCS/LCSD Percent Recoveries) 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:

Esther

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample ID:		
Sample MS ID:		
Sample MSD ID:		
Spike ID:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (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):		
MSD Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
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:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample ID:
Sample MS ID:
Sample MSD ID:
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:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

3/18/21

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) 2021 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_1306

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 01, 2021

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on February 04, 2021. 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, 2021

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=lbrmidkif@southernco.com, c=US
Date: 2021.03.01 10:43:36 -06'00'

Supervision: **T. Durant Maske**
Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2021.03.02 11:20:21 -06'00'



REPORT OF LABORATORY ANALYSIS

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



Total Metals ICP

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02439	691631	WMWGORAP_1306
BB02440	691631	WMWGORAP_1306
BB02441	691631	WMWGORAP_1306
BB02442	691631	WMWGORAP_1306

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- 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>
BB02440	Sodium	101.5
BB02441	Sodium	101.5

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

Case Narrative

Dissolved Metals ICP

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02440	691595	WMWGORAP_1306
BB02441	691595	WMWGORAP_1306

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- 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.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Case Narrative

Total Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02439	692265	WMWGORAP_1306
BB02440	692265	WMWGORAP_1306
BB02441	692265	WMWGORAP_1306
BB02442	692265	WMWGORAP_1306

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Dissolved Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02440	691829	WMWGORAP_1306
BB02441	691829	WMWGORAP_1306

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

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

Mercury

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02439	691728	WMWGORAP_1306
BB02440	691728	WMWGORAP_1306
BB02441	691728	WMWGORAP_1306
BB02442	691728	WMWGORAP_1306

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Case Narrative

TDS

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02439	691758	WMWGORAP_1306
BB02440	691758	WMWGORAP_1306
BB02441	691758	WMWGORAP_1306
BB02442	691758	WMWGORAP_1306

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BB02439
 - BB02442

Anions

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02439	691453, 691511, & 691949	WMWGORAP_1306
BB02440	691453, 691511, & 691949	WMWGORAP_1306
BB02441	691453, 691511, & 691949	WMWGORAP_1306
BB02442	691453, 691511, & 691949	WMWGORAP_1306

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 half 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 half 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>
BB02440	Chloride & Sulfate	8 & 3
BB02441	Chloride & Sulfate	8 & 3

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

Case Narrative

Alkalinity

Gorgas Ash Pond

WMWGORAP_1306

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>
BB02440	692181 & 692182	WMWGORAP_1306
BB02441	692181 & 692182	WMWGORAP_1306

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

General Quality Control Procedures:

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

Certificate Of Analysis

Description: Gorgas Ash Pond Field Blank-1

Location Code: WMWGORAPFB
Collected: 2/3/21 09:50
Customer ID:
Submittal Date: 2/4/21 11:50

Laboratory ID Number: BB02439

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:10		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 12:10		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/9/21 11:00	2/10/21 12:10		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/9/21 11:00	2/10/21 12:10		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/9/21 11:00	2/10/21 12:10		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/9/21 11:00	2/10/21 12:10		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 09:59		1.015	0.000244	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 09:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/9/21 14:15	2/12/21 08:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	2/4/21 14:10	2/4/21 14:10		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	2/5/21 11:04	2/5/21 11:04		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	2/10/21 12:25	2/10/21 12:25		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/3/21 09:50

Customer ID:

Delivery Date: 2/4/21 11:50

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB02439

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			
BB02442	Magnesium, Total	mg/L	0.00321	0.0462	5.00	4.90	4.92	4.98	4.25 to 5.75	98.0	70.0 to 130	0.407	20.0
BB02442	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0918	0.0925	0.0938	0.0850 to 0.115	91.8	70.0 to 130	0.760	20.0
BB02442	Sodium, Total	mg/L	0.00233	0.0440	5.00	4.56	4.64	4.69	4.25 to 5.75	91.2	70.0 to 130	1.74	20.0
BB02442	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02442	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02442	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.1	10.1	10.6	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BB02442	Lithium, Total	mg/L	0.0000691	0.0154	0.20	0.187	0.191	0.194	0.170 to 0.230	93.5	70.0 to 130	2.12	20.0
BB02442	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.0994	0.103	0.0993	0.0850 to 0.115	99.4	70.0 to 130	3.56	20.0
BB02442	Iron, Total	mg/L	0.000358	0.0176	0.2	0.198	0.197	0.201	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BB02442	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0997	0.0991	0.102	0.0850 to 0.115	99.7	70.0 to 130	0.604	20.0
BB02442	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0952	0.0987	0.0947	0.0850 to 0.115	95.2	70.0 to 130	3.61	20.0
BB02442	Calcium, Total	mg/L	0.00237	0.152	5.00	4.93	4.95	5.03	4.25 to 5.75	98.6	70.0 to 130	0.405	20.0
BB02442	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0964	0.0962	0.0994	0.0850 to 0.115	96.4	70.0 to 130	0.208	20.0
BB02442	Barium, Total	mg/L	0.0000109	0.000200	0.10	0.100	0.0991	0.104	0.0850 to 0.115	100	70.0 to 130	0.904	20.0
BB02442	Boron, Total	mg/L	0.000992	0.0650	1.00	0.962	0.974	0.988	0.850 to 1.15	96.2	70.0 to 130	1.24	20.0
BB02442	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0965	0.0969	0.100	0.0850 to 0.115	96.5	70.0 to 130	0.414	20.0
BB02442	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02442	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.100	0.0999	0.105	0.0850 to 0.115	99.8	70.0 to 130	0.100	20.0
BB02442	Mercury, Total by CVAA	mg/L	0.0000496	0.000500	0.004	0.00432	0.00426	0.00433	0.00340 to 0.00460	108	70.0 to 130	1.40	20.0
BB02442	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0964	0.0940	0.0976	0.0850 to 0.115	96.4	70.0 to 130	2.52	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/3/21 09:50

Customer ID:

Delivery Date: 2/4/21 11:50

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB02439

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB02442	Chloride	mg/L	-0.0157	0.500	10.0	9.66	0.0467	9.82	9.00 to 11.0	96.6	80.0 to 120	0.00	20.0
BB02442	Sulfate	mg/L	-0.309	0.500	20.0	19.0	-0.473	19.2	18.0 to 22.0	95.0	80.0 to 120	0.00	20.0
BB02441	Solids, Dissolved	mg/L	1.00	25.0			590	52.0	40.0 to 60.0			1.34	5.00
BB02442	Fluoride	mg/L	0.0218	0.0500	2.50	2.90	0.0199	2.65	2.25 to 2.75	116	80.0 to 120	0.00	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-44HO

Location Code: WMWGORAP
Collected: 2/3/21 10:38
Customer ID:
Submittal Date: 2/4/21 11:50

Laboratory ID Number: BB02440

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:14		1.015	0.0472	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 12:14		1.015	2.87	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 12:14		1.015	0.0545	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 12:14		1.015	0.0630	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 12:14		1.015	0.767	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 15:07		101.5	216	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 12:54		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:03		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:03		1.015	0.000795	mg/L	0.000068	0.000203	
* Barium, Total	2/8/21 13:00	2/12/21 10:03		1.015	0.0602	mg/L	0.000101	0.000203	
* Beryllium, Total	2/8/21 13:00	2/12/21 10:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:03		1.015	0.000255	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:03		1.015	0.00429	mg/L	0.000068	0.000203	
* Potassium, Total	2/8/21 13:00	2/12/21 10:03		1.015	0.884	mg/L	0.169505	0.5075	
* Manganese, Total	2/8/21 13:00	2/12/21 10:03		1.015	0.00340	mg/L	0.000068	0.000203	
* Selenium, Total	2/8/21 13:00	2/12/21 10:03		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:47	2/8/21 12:32		1.015	0.00274	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 10:15	2/11/21 10:37		1	389	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/9/21 14:15	2/12/21 08:30		1	592	mg/L		50	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 02/24/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-44HO

Location Code: WMWGORAP

Collected: 2/3/21 10:38

Customer ID:

Submittal Date: 2/4/21 11:50

Laboratory ID Number: BB02440

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 10:15	2/11/21 10:37		1	363	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 10:15	2/11/21 10:37		1	25.9	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 14:11	2/4/21 14:11		8	44.8	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 11:06	2/5/21 11:06		1	0.181	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:26	2/10/21 12:26		3	57.0	mg/L	1.50	3	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/3/21 10:34	2/3/21 10:34			1070.92	uS/cm			FA
pH	2/3/21 10:34	2/3/21 10:34			8.90	SU			FA
Temperature	2/3/21 10:34	2/3/21 10:34			15.16	C			FA
Turbidity	2/3/21 10:34	2/3/21 10:34			1.13	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.
 LBM 02/24/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:38

Customer ID:

Delivery Date: 2/4/21 11:50

Description: Gorgas Ash Pond - MW-44HO

Laboratory ID Number: BB02440

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02442	Calcium, Total	mg/L	0.00237	0.152	5.00	4.93	4.95	5.03	4.25 to 5.75	98.6	70.0 to 130	0.405	20.0
BB02442	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0964	0.0962	0.0994	0.0850 to 0.115	96.4	70.0 to 130	0.208	20.0
BB02442	Iron, Total	mg/L	0.000358	0.0176	0.2	0.198	0.197	0.201	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BB02442	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0997	0.0991	0.102	0.0850 to 0.115	99.7	70.0 to 130	0.604	20.0
BB02442	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0952	0.0987	0.0947	0.0850 to 0.115	95.2	70.0 to 130	3.61	20.0
BB02441	Manganese, Dissolved	mg/L	0.0000138	0.000147	0.10	0.108	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	2.82	20.0
BB02442	Magnesium, Total	mg/L	0.00321	0.0462	5.00	4.90	4.92	4.98	4.25 to 5.75	98.0	70.0 to 130	0.407	20.0
BB02442	Barium, Total	mg/L	0.0000109	0.000200	0.10	0.100	0.0991	0.104	0.0850 to 0.115	100	70.0 to 130	0.904	20.0
BB02442	Boron, Total	mg/L	0.000992	0.0650	1.00	0.962	0.974	0.988	0.850 to 1.15	96.2	70.0 to 130	1.24	20.0
BB02442	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0965	0.0969	0.100	0.0850 to 0.115	96.5	70.0 to 130	0.414	20.0
BB02442	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02442	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02442	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02442	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.1	10.1	10.6	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BB02442	Lithium, Total	mg/L	0.0000691	0.0154	0.20	0.187	0.191	0.194	0.170 to 0.230	93.5	70.0 to 130	2.12	20.0
BB02442	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.0994	0.103	0.0993	0.0850 to 0.115	99.4	70.0 to 130	3.56	20.0
BB02441	Iron, Dissolved	mg/L	-0.0000141	0.0176	0.2	0.203	0.206	0.203	0.170 to 0.230	102	70.0 to 130	1.47	20.0
BB02442	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.100	0.0999	0.105	0.0850 to 0.115	99.8	70.0 to 130	0.100	20.0
BB02442	Mercury, Total by CVAA	mg/L	0.0000496	0.000500	0.004	0.00432	0.00426	0.00433	0.00340 to 0.00460	108	70.0 to 130	1.40	20.0
BB02442	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0964	0.0940	0.0976	0.0850 to 0.115	96.4	70.0 to 130	2.52	20.0
BB02442	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0918	0.0925	0.0938	0.0850 to 0.115	91.8	70.0 to 130	0.760	20.0
BB02442	Sodium, Total	mg/L	0.00233	0.0440	5.00	4.56	4.64	4.69	4.25 to 5.75	91.2	70.0 to 130	1.74	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 02/24/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:38

Customer ID:

Delivery Date: 2/4/21 11:50

Description: Gorgas Ash Pond - MW-44HO

Laboratory ID Number: BB02440

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02442	Chloride	mg/L	-0.0157	0.500	10.0	9.66	0.0467	9.82	9.00 to 11.0	96.6	80.0 to 120	0.00	20.0
BB02441	Solids, Dissolved	mg/L	1.00	25.0			590	52.0	40.0 to 60.0			1.34	5.00
BB02442	Fluoride	mg/L	0.0218	0.0500	2.50	2.90	0.0199	2.65	2.25 to 2.75	116	80.0 to 120	0.00	20.0
BB02441	Alkalinity, Total as CaCO3	mg/L					424	52.5	45.0 to 55.0			1.43	10.0
BB02442	Sulfate	mg/L	-0.309	0.500	20.0	19.0	-0.473	19.2	18.0 to 22.0	95.0	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.
 LBM 02/24/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-44HO DUP

Location Code: WMWGORAP
Collected: 2/3/21 10:38
Customer ID:
Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02441

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:17		1.015	0.0466	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 12:17		1.015	2.85	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 12:17		1.015	0.0512	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 12:17		1.015	0.0618	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 12:17		1.015	0.753	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 15:11		101.5	215	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 12:58		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:06		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:06		1.015	0.000684	mg/L	0.000068	0.000203	
* Barium, Total	2/8/21 13:00	2/12/21 10:06		1.015	0.0585	mg/L	0.000101	0.000203	
* Beryllium, Total	2/8/21 13:00	2/12/21 10:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:06		1.015	0.000276	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:06		1.015	0.00425	mg/L	0.000068	0.000203	
* Potassium, Total	2/8/21 13:00	2/12/21 10:06		1.015	0.818	mg/L	0.169505	0.5075	
* Manganese, Total	2/8/21 13:00	2/12/21 10:06		1.015	0.00336	mg/L	0.000068	0.000203	
* Selenium, Total	2/8/21 13:00	2/12/21 10:06		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:47	2/8/21 12:35		1.015	0.00286	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:12		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 10:15	2/11/21 10:37		1	418	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/9/21 14:15	2/12/21 08:30		1	606	mg/L		50	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 02/24/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-44HO DUP

Location Code: WMWGORAP

Collected: 2/3/21 10:38

Customer ID:

Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02441

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 10:15	2/11/21 10:37		1	390	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 10:15	2/11/21 10:37		1	27.8	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 14:12	2/4/21 14:12		8	46.4	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 11:07	2/5/21 11:07		1	0.175	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:27	2/10/21 12:27		3	56.9	mg/L	1.50	3	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/3/21 10:34	2/3/21 10:34			1070.92	uS/cm			FA
pH	2/3/21 10:34	2/3/21 10:34			8.90	SU			FA
Temperature	2/3/21 10:34	2/3/21 10:34			15.16	C			FA
Turbidity	2/3/21 10:34	2/3/21 10:34			1.13	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.
 LBM 02/24/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:38

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-44HO DUP

Laboratory ID Number: BB02441

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02442	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0918	0.0925	0.0938	0.0850 to 0.115	91.8	70.0 to 130	0.760	20.0
BB02442	Sodium, Total	mg/L	0.00233	0.0440	5.00	4.56	4.64	4.69	4.25 to 5.75	91.2	70.0 to 130	1.74	20.0
BB02441	Manganese, Dissolved	mg/L	0.0000138	0.000147	0.10	0.108	0.105	0.105	0.0850 to 0.115	105	70.0 to 130	2.82	20.0
BB02442	Magnesium, Total	mg/L	0.00321	0.0462	5.00	4.90	4.92	4.98	4.25 to 5.75	98.0	70.0 to 130	0.407	20.0
BB02442	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02442	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02442	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.1	10.1	10.6	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BB02442	Lithium, Total	mg/L	0.0000691	0.0154	0.20	0.187	0.191	0.194	0.170 to 0.230	93.5	70.0 to 130	2.12	20.0
BB02442	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.0994	0.103	0.0993	0.0850 to 0.115	99.4	70.0 to 130	3.56	20.0
BB02442	Iron, Total	mg/L	0.000358	0.0176	0.2	0.198	0.197	0.201	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BB02442	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0997	0.0991	0.102	0.0850 to 0.115	99.7	70.0 to 130	0.604	20.0
BB02442	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0952	0.0987	0.0947	0.0850 to 0.115	95.2	70.0 to 130	3.61	20.0
BB02442	Calcium, Total	mg/L	0.00237	0.152	5.00	4.93	4.95	5.03	4.25 to 5.75	98.6	70.0 to 130	0.405	20.0
BB02442	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0964	0.0962	0.0994	0.0850 to 0.115	96.4	70.0 to 130	0.208	20.0
BB02442	Barium, Total	mg/L	0.0000109	0.000200	0.10	0.100	0.0991	0.104	0.0850 to 0.115	100	70.0 to 130	0.904	20.0
BB02442	Boron, Total	mg/L	0.000992	0.0650	1.00	0.962	0.974	0.988	0.850 to 1.15	96.2	70.0 to 130	1.24	20.0
BB02442	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0965	0.0969	0.100	0.0850 to 0.115	96.5	70.0 to 130	0.414	20.0
BB02442	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02441	Iron, Dissolved	mg/L	-0.0000141	0.0176	0.2	0.203	0.206	0.203	0.170 to 0.230	102	70.0 to 130	1.47	20.0
BB02442	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.100	0.0999	0.105	0.0850 to 0.115	99.8	70.0 to 130	0.100	20.0
BB02442	Mercury, Total by CVAA	mg/L	0.0000496	0.000500	0.004	0.00432	0.00426	0.00433	0.00340 to 0.00460	108	70.0 to 130	1.40	20.0
BB02442	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0964	0.0940	0.0976	0.0850 to 0.115	96.4	70.0 to 130	2.52	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 02/24/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 10:38

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-44HO DUP

Laboratory ID Number: BB02441

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02442	Chloride	mg/L	-0.0157	0.500	10.0	9.66	0.0467	9.82	9.00 to 11.0	96.6	80.0 to 120	0.00	20.0
BB02441	Solids, Dissolved	mg/L	1.00	25.0			590	52.0	40.0 to 60.0			1.34	5.00
BB02442	Fluoride	mg/L	0.0218	0.0500	2.50	2.90	0.0199	2.65	2.25 to 2.75	116	80.0 to 120	0.00	20.0
BB02441	Alkalinity, Total as CaCO3	mg/L					424	52.5	45.0 to 55.0			1.43	10.0
BB02442	Sulfate	mg/L	-0.309	0.500	20.0	19.0	-0.473	19.2	18.0 to 22.0	95.0	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.
 LBM 02/24/21

Certificate Of Analysis

Description: Gorgas Ash Pond Equipment Blank-1

Location Code: WMWGORAPEB
Collected: 2/3/21 11:40
Customer ID:
Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02442

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:21		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 12:21		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/9/21 11:00	2/10/21 12:21		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/9/21 11:00	2/10/21 12:21		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/9/21 11:00	2/10/21 12:21		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/9/21 11:00	2/10/21 12:21		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:10		1.015	0.000241	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/9/21 14:15	2/12/21 08:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	2/4/21 14:14	2/4/21 14:14		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	2/5/21 11:08	2/5/21 11:08		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	2/10/21 12:29	2/10/21 12:29		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 2/3/21 11:40

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB02442

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02442	Magnesium, Total	mg/L	0.00321	0.0462	5.00	4.90	4.92	4.98	4.25 to 5.75	98.0	70.0 to 130	0.407	20.0
BB02442	Calcium, Total	mg/L	0.00237	0.152	5.00	4.93	4.95	5.03	4.25 to 5.75	98.6	70.0 to 130	0.405	20.0
BB02442	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0964	0.0962	0.0994	0.0850 to 0.115	96.4	70.0 to 130	0.208	20.0
BB02442	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0918	0.0925	0.0938	0.0850 to 0.115	91.8	70.0 to 130	0.760	20.0
BB02442	Sodium, Total	mg/L	0.00233	0.0440	5.00	4.56	4.64	4.69	4.25 to 5.75	91.2	70.0 to 130	1.74	20.0
BB02442	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02442	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02442	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.1	10.1	10.6	8.50 to 11.5	101	70.0 to 130	0.00	20.0
BB02442	Lithium, Total	mg/L	0.0000691	0.0154	0.20	0.187	0.191	0.194	0.170 to 0.230	93.5	70.0 to 130	2.12	20.0
BB02442	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.0994	0.103	0.0993	0.0850 to 0.115	99.4	70.0 to 130	3.56	20.0
BB02442	Barium, Total	mg/L	0.0000109	0.000200	0.10	0.100	0.0991	0.104	0.0850 to 0.115	100	70.0 to 130	0.904	20.0
BB02442	Boron, Total	mg/L	0.000992	0.0650	1.00	0.962	0.974	0.988	0.850 to 1.15	96.2	70.0 to 130	1.24	20.0
BB02442	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0965	0.0969	0.100	0.0850 to 0.115	96.5	70.0 to 130	0.414	20.0
BB02442	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.101	0.102	0.107	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BB02442	Iron, Total	mg/L	0.000358	0.0176	0.2	0.198	0.197	0.201	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BB02442	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0997	0.0991	0.102	0.0850 to 0.115	99.7	70.0 to 130	0.604	20.0
BB02442	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0952	0.0987	0.0947	0.0850 to 0.115	95.2	70.0 to 130	3.61	20.0
BB02442	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.100	0.0999	0.105	0.0850 to 0.115	99.8	70.0 to 130	0.100	20.0
BB02442	Mercury, Total by CVAA	mg/L	0.0000496	0.000500	0.004	0.00432	0.00426	0.00433	0.00340 to 0.00460	108	70.0 to 130	1.40	20.0
BB02442	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0964	0.0940	0.0976	0.0850 to 0.115	96.4	70.0 to 130	2.52	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 2/3/21 11:40

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB02442

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02442	Chloride	mg/L	-0.0157	0.500	10.0	9.66	0.0467	9.82	9.00 to 11.0	96.6	80.0 to 120	0.00	20.0
BB02442	Sulfate	mg/L	-0.309	0.500	20.0	19.0	-0.473	19.2	18.0 to 22.0	95.0	80.0 to 120	0.00	20.0
BB02441	Solids, Dissolved	mg/L	1.00	25.0			590	52.0	40.0 to 60.0			1.34	5.00
BB02442	Fluoride	mg/L	0.0218	0.0500	2.50	2.90	0.0199	2.65	2.25 to 2.75	116	80.0 to 120	0.00	20.0

Comments:

Definitions

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

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Anthony Giggins		Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
FB-1	02/03/2021	09:50	4	Field Blank		BB02439
MW-44HO	02/03/2021	10:38	6	Groundwater		BB02440
MW-44HO Dup	02/03/2021	10:38	6	Sample Duplicate		BB02441
EB-1	02/03/2021	11:40	4	Equipment Blank		BB02442

Relinquished By <i>Anthony Giggins</i>	Received By <i>Greg Dyer</i>	Date/Time 02/04/2021 11:20

SmarTroll ID	7586-41445-5-4
Turbidity ID	7061-38344-3-3
Sample Event	1306

All metals and radiological bottles have pH < 2

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45507-2-2

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	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Anthony Goggins	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 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: MS and MSD collected MW-44HO

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
FB-1	02/03/2021	09:50	1	Field Blank		BB02443
MW-44HO	02/03/2021	10:38	3	Groundwater		BB02444
MW-44HO Dup	02/03/2021	10:38	1	Sample Duplicate		BB02445
EB-1	02/03/2021	11:40	1	Equipment Blank		BB02446

Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>Greg Dyer</i>	02/04/2021 11:21

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	7061-38344-3-3	
Sample Event	1306	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	8129-45507-2-2	

Bottles/Pre-Preserved Bottles are provided by the GTL

March 15, 2021

Laura Midkiff
Alabama Power
744 Highway 87
GSC #8
Calera, AL 35040

RE: Project: GORGAS ASH POND WMWGORAP_1306
Pace Project No.: 92521943

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory on February 11, 2021. 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,



Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Brooke Caton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: GORGAS ASH POND WMWGORAP_1306
Pace Project No.: 92521943

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 #: 9526

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

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SAMPLE SUMMARY

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92521943001	BB02443 FB-1	Water	02/03/21 09:50	02/11/21 09:50
92521943002	BB02444 MW-44HO	Water	02/03/21 10:38	02/11/21 09:50
92521943003	BB02445 MW-44HO DUP	Water	02/03/21 10:38	02/11/21 09:50
92521943004	BB02446 EB-1	Water	02/03/21 11:40	02/11/21 09:50
92521943005	BB02444 MW-440HO MS	Water	02/03/21 10:38	02/11/21 09:50
92521943006	BB02444 MW-440HO MSD	Water	02/03/21 10:38	02/11/21 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92521943001	BB02443 FB-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521943002	BB02444 MW-44HO	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521943003	BB02445 MW-44HO DUP	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521943004	BB02446 EB-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521943005	BB02444 MW-440HO MS	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92521943006	BB02444 MW-440HO MSD	EPA 9320	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: March 15, 2021

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: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: March 15, 2021

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: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Alabama Power

Date: March 15, 2021

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: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BB02443 FB-1 Lab ID: 92521943001 Collected: 02/03/21 09:50 Received: 02/11/21 09:50 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0722U ± 0.164 (0.390) C:90% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.113U ± 0.281 (0.629) C:73% T:86%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.185U ± 0.445 (1.02)	pCi/L	03/12/21 11:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Sample: BB02444 MW-44HO **Lab ID: 92521943002** Collected: 02/03/21 10:38 Received: 02/11/21 09:50 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	0.130U ± 0.183 (0.386) C:88% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0151U ± 0.313 (0.729) C:74% T:79%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.145U ± 0.496 (1.12)	pCi/L	03/12/21 11:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Sample: BB02445 MW-44HO DUP **Lab ID: 92521943003** Collected: 02/03/21 10:38 Received: 02/11/21 09:50 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	0.00803U ± 0.136 (0.383) C:87% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.420U ± 0.406 (0.836) C:71% T:82%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.428U ± 0.542 (1.22)	pCi/L	03/12/21 11:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Sample: BB02446 EB-1 **Lab ID: 92521943004** Collected: 02/03/21 11:40 Received: 02/11/21 09:50 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	-0.0296U ± 0.127 (0.390) C:90% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.167U ± 0.339 (0.748) C:71% T:88%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.167U ± 0.466 (1.14)	pCi/L	03/12/21 11:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Sample: BB02444 MW-440HO MS **Lab ID: 92521943005** Collected: 02/03/21 10:38 Received: 02/11/21 09:50 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	103.01 %REC ± NA (NA) C:NA T:NA	pCi/L	03/12/21 09:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	81.75 %REC ± NA (NA) C:NA T:NA	pCi/L	03/02/21 11:23	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

Sample: BB02444 MW-440HO MSD **Lab ID: 92521943006** Collected: 02/03/21 10:38 Received: 02/11/21 09:50 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	101.78 %REC 1.20RPD ± NA (NA) C:NA T:NA	pCi/L	03/12/21 09:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	83.02 %REC 1.55 RPD ± NA (NA) C:NA T:NA	pCi/L	03/02/21 11:24	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1306
Pace Project No.: 92521943

QC Batch:	435117	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92521943001, 92521943002, 92521943003, 92521943004, 92521943005, 92521943006

METHOD BLANK: 2100681 Matrix: Water

Associated Lab Samples: 92521943001, 92521943002, 92521943003, 92521943004, 92521943005, 92521943006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.301 ± 0.264 (0.532) C:86% T:90%	pCi/L	03/02/21 11:21	

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: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

QC Batch: 435460

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92521943001, 92521943002, 92521943003, 92521943004, 92521943005, 92521943006

METHOD BLANK: 2102228

Matrix: Water

Associated Lab Samples: 92521943001, 92521943002, 92521943003, 92521943004, 92521943005, 92521943006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0490 ± 0.139 (0.343) C:97% T:NA	pCi/L	03/12/21 09:04	

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: GORGAS ASH POND WMWGORAP_1306

Pace Project No.: 92521943

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(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: GORGAS ASH POND WMWGORAP_1306
Pace Project No.: 92521943

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92521943001	BB02443 FB-1	EPA 9315	435460		
92521943002	BB02444 MW-44HO	EPA 9315	435460		
92521943003	BB02445 MW-44HO DUP	EPA 9315	435460		
92521943004	BB02446 EB-1	EPA 9315	435460		
92521943005	BB02444 MW-440HO MS	EPA 9315	435460		
92521943006	BB02444 MW-440HO MSD	EPA 9315	435460		
92521943001	BB02443 FB-1	EPA 9320	435117		
92521943002	BB02444 MW-44HO	EPA 9320	435117		
92521943003	BB02445 MW-44HO DUP	EPA 9320	435117		
92521943004	BB02446 EB-1	EPA 9320	435117		
92521943005	BB02444 MW-440HO MS	EPA 9320	435117		
92521943006	BB02444 MW-440HO MSD	EPA 9320	435117		
92521943001	BB02443 FB-1	Total Radium Calculation	438456		
92521943002	BB02444 MW-44HO	Total Radium Calculation	438456		
92521943003	BB02445 MW-44HO DUP	Total Radium Calculation	438456		
92521943004	BB02446 EB-1	Total Radium Calculation	438456		

REPORT OF LABORATORY ANALYSIS

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Client Name: Duce NC

WO#: 92521943



Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 9551 0669 7782

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>OSM 2/12/21</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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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 C 2</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>OSM</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>OSM</u> Date: <u>2/12/21</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 reports.

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.

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
 Page: _____ Of _____

Required Client Information:		Required Project Information:		Invoice Information:	
Company:	Alabama Power Company	Report To:	Laura Mickitt	Attention:	Laura Mickitt
Address:	744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To:	Brooke Caton & Renee Jemigan	Company Name:	Alabama Power Co.
Email To:	lmidkitt@southernco.com	Purchase Order #:	APG5770-0001	Address:	744 Highway 87 GSC Bldg #8
Phone:	205-664-6197	Project Name:	Gorgas Ash Pond	Page Quote:	CCR
Fax:		Project Number:	WMMWGORAP 1306	Page Project Manager:	Kevin Herring
Requested Due Date:	28 days			Page Profile #:	
				Requested Analysis/Filtered (Y/N):	AL
				State/Location:	
				Regulatory Agency:	

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives							Analyses Test		Requested Analysis/Filtered (Y/N)	Residual Chlorine (Y/N)			
			START DATE	END DATE	UNPRESERVED	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D						
1	BB02443 FB-1	GWG	2/9/2021	9:50	1		X															
2	BB02444 MW-44HO	GWG	2/9/2021	10:38	3		X															
3	BB02445 MW-44HO DUP	GWG	2/9/2021	10:38	1		X															
4	BB02446 EB-1	GWG	2/9/2021	11:40	1		X															
5																						
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	2/9/2021	8:31	<i>[Signature]</i>	2/9/21	0950	N N F	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:								
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)					

Quality Control Sample Performance Assessment



Test: Ra-226
 Analyst: JJY
 Date: 2/19/2021
 Worklist: 58878
 Matrix: DW

Method Blank Assessment	
MB Sample ID	2102228
MB concentration:	0.049
M/B Counting Uncertainty:	0.139
MB MDC:	0.343
MB Numerical Performance Indicator:	0.69
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD58878	N LCSD58878
Count Date:	3/12/2021	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.039	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.228	
Target Conc. (pCi/L, g, F):	10.564	
Uncertainty (Calculated):	0.127	
Result (pCi/L, g, F):	9.396	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.973	
Numerical Performance Indicator:	-2.33	
Percent Recovery:	88.94%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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 Counting Uncertainty (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result Counting Uncertainty (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.

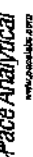
Comments:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/3/2021	2/3/2021
Sample I.D.:	92521943002	92521945001
Sample MS I.D.:	92521943005	92521945007
Sample MSD I.D.:	92521943006	92521945008
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.040	24.040
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):	0.205	0.216
MS Target Conc. (pCi/L, g, F):	23.448	22.289
MSD Aliquot (L, g, F):	0.200	0.215
MSD Target Conc. (pCi/L, g, F):	24.014	22.381
MS Spike Uncertainty (calculated):	0.281	0.267
MSD Spike Uncertainty (calculated):	0.288	0.269
Sample Result Counting Uncertainty (pCi/L, g, F):	0.130	0.269
Sample Matrix Spike Result:	0.182	0.215
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	24.285	23.709
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.631	1.631
Sample Matrix Spike Duplicate Result:	24.573	22.621
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.734	1.626
MS Numerical Performance Indicator:	0.831	1.355
MSD Numerical Performance Indicator:	0.475	-0.034
MS Percent Recovery:	103.01%	105.17%
MSD Percent Recovery:	101.78%	99.87%
MS Status vs Numerical Indicator:	N/A	N/A
MSD Status vs Numerical Indicator:	N/A	N/A
MS Status vs Recovery:	Pass	Pass
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	MS/MSD 1	MS/MSD 2
Sample I.D.:	92521943002	92521945001
Sample MS I.D.:	92521943005	92521945007
Sample MSD I.D.:	92521943006	92521945008
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.040	24.040
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):	0.205	0.216
MS Target Conc. (pCi/L, g, F):	23.448	22.289
MSD Aliquot (L, g, F):	0.200	0.215
MSD Target Conc. (pCi/L, g, F):	24.014	22.381
MS Spike Uncertainty (calculated):	0.281	0.267
MSD Spike Uncertainty (calculated):	0.288	0.269
Sample Result Counting Uncertainty (pCi/L, g, F):	0.130	0.269
Sample Matrix Spike Result:	0.182	0.215
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	24.285	23.709
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.631	1.631
Sample Matrix Spike Duplicate Result:	24.573	22.621
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.734	1.626
MS Numerical Performance Indicator:	0.831	1.355
MSD Numerical Performance Indicator:	0.475	-0.034
MS Percent Recovery:	103.01%	105.17%
MSD Percent Recovery:	101.78%	99.87%
MS Status vs Numerical Indicator:	N/A	N/A
MSD Status vs Numerical Indicator:	N/A	N/A
MS Status vs Recovery:	Pass	Pass
MSD Status vs Recovery:	Pass	Pass
MS/MSD Upper % Recovery Limits:	125%	125%
MS/MSD Lower % Recovery Limits:	75%	75%

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: VAL
Date: 2/23/2021
Worklist: 58852
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID:	2100881
MB concentration:	0.301
MB 2 Sigma CSU:	0.264
MB MDC:	0.532
MB Numerical Performance Indicator:	2.23
MB Status vs Numerical Indicator:	Warning
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment	LCS# (Y or N)?	
	LCS#	N
Count Date:	3/2/2021	LCS#58852
Spike ID:	21-003	
Decay Corrected Spike Concentration (pCi/mL):	38.623	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.806	
Target Conc. (pCi/L, g, F):	4.790	
Uncertainty (Calculated):	0.235	
Result (pCi/L, g, F):	5.227	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.160	
Numerical Performance Indicator:	0.72	
Percent Recovery:	109.14%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	136%	
Lower % Recovery Limits:	80%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS# in the space below:
Sample ID:	
Duplicate Sample ID:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (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:

ONE
3/3/21

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/3/2021	2/3/2021
Sample ID:	92521943002	92521945001
Sample MS ID:	92521943005	92521945007
Sample MSD ID:	92521943006	92521945008
Spike ID:	21-003	21-003
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	38.969	38.969
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):	0.818	0.818
MS Target Conc. (pCi/L, g, F):	9.525	9.525
MSD Aliquot (L, g, F):	0.809	0.814
MSD Target Conc. (pCi/L, g, F):	9.639	9.579
MS Spike Uncertainty (calculated):	0.467	0.467
MSD Spike Uncertainty (calculated):	0.472	0.469
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.015	0.044
Sample Matrix Spike Result:	0.313	0.287
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	7.801	7.458
Sample Matrix Spike Duplicate Result:	1.806	1.531
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	8.018	8.087
MS Numerical Performance Indicator:	1.832	1.665
MSD Numerical Performance Indicator:	-2.003	-2.544
MS Percent Recovery:	-1.858	-1.716
MSD Percent Recovery:	81.75%	77.86%
MS Status vs Numerical Indicator:	Warning	Warning
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 ID:	92521943002
Sample MS ID:	92521943005
Sample MSD ID:	92521943006
Spike ID:	7.801
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.608
Sample Matrix Spike Duplicate Result:	8.018
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.632
Duplicate Numerical Performance Indicator:	-0.185
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Numerical Performance Indicator:	1.55%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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 2021 Event 1

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

Field quality control procedures were performed as follows:

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

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

Analytical Report



Sample Group : WMWGORAP_1307

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 01, 2021

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on February 04, 2021. 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, 2021

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

Sincerely,

Quality Control: **Laura Midkiff**
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lmidkiff@southernco.com, c=US
Date: 2021.03.01 11:42:39 -06'00'

Supervision: **T. Durant Maske**
Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, c=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2021.03.02 11:31:43 -06'00'



REPORT OF LABORATORY ANALYSIS

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



Case Narrative

Total Metals ICP

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	691642	WMWGORAP_1307
BB02448	691642	WMWGORAP_1307
BB02449	691642	WMWGORAP_1307
BB02450	691642	WMWGORAP_1307
BB02451	691642	WMWGORAP_1307
BB02452	691642	WMWGORAP_1307

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- 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>
BB02447	Sodium	101.5
BB02449	Calcium, Sodium	101.5
BB02450	Calcium, Sodium	101.5
BB02451	Sodium	101.5

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

Dissolved Metals ICP

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	691598	WMWGORAP_1307
BB02449	691598	WMWGORAP_1307
BB02450	691598	WMWGORAP_1307
BB02451	691598	WMWGORAP_1307

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- 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.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	692280	WMWGORAP_1307
BB02448	692280	WMWGORAP_1307
BB02449	692280	WMWGORAP_1307
BB02450	692280	WMWGORAP_1307
BB02451	692280	WMWGORAP_1307
BB02452	692280	WMWGORAP_1307

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Dissolved Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	691831	WMWGORAP_1307
BB02449	691831	WMWGORAP_1307
BB02450	691831	WMWGORAP_1307
BB02451	691831	WMWGORAP_1307

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

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

Mercury

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	691729	WMWGORAP_1307
BB02448	691729	WMWGORAP_1307
BB02449	691729	WMWGORAP_1307
BB02450	691729	WMWGORAP_1307
BB02451	691729	WMWGORAP_1307
BB02452	691729	WMWGORAP_1307

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

TDS

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	691518	WMWGORAP_1307
BB02448	691518	WMWGORAP_1307
BB02449	691518	WMWGORAP_1307
BB02450	691518	WMWGORAP_1307
BB02451	691518	WMWGORAP_1307
BB02452	691518	WMWGORAP_1307

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BB02448
 - BB02452

Anions

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	691454, 691512, & 691950	WMWGORAP_1307
BB02448	691454, 691512, & 691950	WMWGORAP_1307
BB02449	691454, 691512, & 691950	WMWGORAP_1307
BB02450	691454, 691512, & 691950	WMWGORAP_1307
BB02451	691454, 691512, & 691950	WMWGORAP_1307
BB02452	691454, 691512, & 691950	WMWGORAP_1307

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 half 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 half 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 high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BB02447	Chloride & Sulfate	5 & 4
BB02449	Chloride & Sulfate	10 & 50
BB02450	Chloride & Sulfate	10 & 50
BB02451	Chloride	2

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

Case Narrative

Alkalinity

Gorgas Ash Pond

WMWGORAP_1307

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>
BB02447	692065 & 692066	WMWGORAP_1307
BB02449	692065 & 692066	WMWGORAP_1307
BB02450	692065 & 692066	WMWGORAP_1307
BB02451	692065 & 692066	WMWGORAP_1307

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

General Quality Control Procedures:

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

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-33HO

Location Code: WMWGORAP
Collected: 2/3/21 13:30
Customer ID:
Submission Date: 2/4/21 11:51

Laboratory ID Number: BB02447

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:44		1.015	0.0453	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 12:44		1.015	30.3	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 12:44		1.015	0.0331	mg/L	0.008120	0.0406	J
* Lithium, Total	2/9/21 11:00	2/10/21 12:44		1.015	0.0534	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 12:44		1.015	10.8	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 15:14		101.5	123	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 13:21		1.015	0.0195	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:31		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:31		1.015	0.00177	mg/L	0.000068	0.000203	
* Barium, Total	2/8/21 13:00	2/12/21 10:31		1.015	0.465	mg/L	0.000101	0.000203	
* Beryllium, Total	2/8/21 13:00	2/12/21 10:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:31		1.015	0.000207	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:31		1.015	0.00346	mg/L	0.000068	0.000203	
* Potassium, Total	2/8/21 13:00	2/12/21 10:31		1.015	8.33	mg/L	0.169505	0.5075	
* Manganese, Total	2/8/21 13:00	2/12/21 10:31		1.015	0.0527	mg/L	0.000068	0.000203	
* Selenium, Total	2/8/21 13:00	2/12/21 10:31		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:48	2/8/21 12:46		1.015	0.0498	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 10:39	2/11/21 11:06		1	257	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	443	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-33HO

Location Code: WMWGORAP

Collected: 2/3/21 13:30

Customer ID:

Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02447

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	256	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	1.23	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 14:42	2/4/21 14:42		5	55.2	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 11:21	2/5/21 11:21		1	0.178	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 12:58	2/10/21 12:58		4	70.7	mg/L	2.00	4	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/3/21 13:24	2/3/21 13:24			850.79	uS/cm			FA
pH	2/3/21 13:24	2/3/21 13:24			7.64	SU			FA
Temperature	2/3/21 13:24	2/3/21 13:24			15.86	C			FA
Turbidity	2/3/21 13:24	2/3/21 13:24			0.33	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.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 13:30

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-33HO

Laboratory ID Number: BB02447

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02452	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0957	0.0962	0.0994	0.0850 to 0.115	95.7	70.0 to 130	0.521	20.0
BB02452	Magnesium, Total	mg/L	0.00194	0.0462	5.00	4.88	4.99	5.03	4.25 to 5.75	97.6	70.0 to 130	2.23	20.0
BB02452	Barium, Total	mg/L	0.0000108	0.000200	0.10	0.0971	0.0966	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BB02452	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0988	0.0970	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.84	20.0
BB02451	Manganese, Dissolved	mg/L	0.0000138	0.000147	0.10	0.110	0.112	0.105	0.0850 to 0.115	102	70.0 to 130	1.80	20.0
BB02452	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0968	0.0972	0.0938	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02452	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.101	0.100	0.0993	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02452	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0996	0.102	0.102	0.0850 to 0.115	99.6	70.0 to 130	2.38	20.0
BB02452	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.107	0.102	0.104	0.0850 to 0.115	107	70.0 to 130	4.78	20.0
BB02452	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0928	0.0929	0.0976	0.0850 to 0.115	92.8	70.0 to 130	0.108	20.0
BB02452	Boron, Total	mg/L	0.00109	0.0650	1.00	0.961	0.986	0.998	0.850 to 1.15	96.1	70.0 to 130	2.57	20.0
BB02452	Calcium, Total	mg/L	0.00138	0.152	5.00	4.94	5.06	5.08	4.25 to 5.75	98.8	70.0 to 130	2.40	20.0
BB02452	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.104	0.103	0.107	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02451	Iron, Dissolved	mg/L	0.0000366	0.0176	0.2	0.209	0.213	0.202	0.170 to 0.230	99.0	70.0 to 130	1.90	20.0
BB02452	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BB02452	Mercury, Total by CVAA	mg/L	0.0000514	0.000500	0.004	0.00427	0.00421	0.00445	0.00340 to 0.00460	107	70.0 to 130	1.42	20.0
BB02452	Lithium, Total	mg/L	0.0000486	0.0154	0.200	0.189	0.193	0.196	0.170 to 0.230	94.5	70.0 to 130	2.09	20.0
BB02452	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.102	0.103	0.107	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BB02452	Sodium, Total	mg/L	0.00224	0.0440	5.00	4.58	4.68	4.70	4.25 to 5.75	91.6	70.0 to 130	2.16	20.0
BB02452	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0963	0.0969	0.0947	0.0850 to 0.115	96.3	70.0 to 130	0.621	20.0
BB02452	Iron, Total	mg/L	0.000330	0.0176	0.2	0.198	0.202	0.204	0.170 to 0.230	99.0	70.0 to 130	2.00	20.0
BB02452	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.3	10.1	10.6	8.50 to 11.5	103	70.0 to 130	1.96	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 13:30

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-33HO

Laboratory ID Number: BB02447

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02450	Solids, Dissolved	mg/L	1.00	25.0			2860	49.0	40.0 to 60.0			0.351	5.00
BB02451	Alkalinity, Total as CaCO3	mg/L					222	52.0	45.0 to 55.0			0.00	10.0
BB02452	Sulfate	mg/L	-0.365	0.500	20.0	18.4	-0.371	18.7	18.0 to 22.0	92.0	80.0 to 120	0.00	20.0
BB02452	Chloride	mg/L	-0.0216	0.500	10.0	9.78	0.117	9.79	9.00 to 11.0	97.8	80.0 to 120	0.00	20.0
BB02452	Fluoride	mg/L	0.0177	0.0500	2.50	2.61	0.0183	2.66	2.25 to 2.75	104	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.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond Field Blank-1

Location Code: WMWGORAPFB
Collected: 2/3/21 15:30
Customer ID:
Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02448

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:48		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 12:48		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/9/21 11:00	2/10/21 12:48		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/9/21 11:00	2/10/21 12:48		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/9/21 11:00	2/10/21 12:48		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/9/21 11:00	2/10/21 12:48		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:35		1.015	0.000386	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	2/4/21 14:43	2/4/21 14:43		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	2/5/21 11:22	2/5/21 11:22		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	2/10/21 12:59	2/10/21 12:59		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/3/21 15:30

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB02448

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BB02452	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0957	0.0962	0.0994	0.0850 to 0.115	95.7	70.0 to 130	0.521	20.0
BB02452	Magnesium, Total	mg/L	0.00194	0.0462	5.00	4.88	4.99	5.03	4.25 to 5.75	97.6	70.0 to 130	2.23	20.0
BB02452	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.107	0.102	0.104	0.0850 to 0.115	107	70.0 to 130	4.78	20.0
BB02452	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0928	0.0929	0.0976	0.0850 to 0.115	92.8	70.0 to 130	0.108	20.0
BB02452	Boron, Total	mg/L	0.00109	0.0650	1.00	0.961	0.986	0.998	0.850 to 1.15	96.1	70.0 to 130	2.57	20.0
BB02452	Calcium, Total	mg/L	0.00138	0.152	5.00	4.94	5.06	5.08	4.25 to 5.75	98.8	70.0 to 130	2.40	20.0
BB02452	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.104	0.103	0.107	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02452	Barium, Total	mg/L	0.0000108	0.000200	0.10	0.0971	0.0966	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BB02452	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0988	0.0970	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.84	20.0
BB02452	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BB02452	Mercury, Total by CVAA	mg/L	0.0000514	0.000500	0.004	0.00427	0.00421	0.00445	0.00340 to 0.00460	107	70.0 to 130	1.42	20.0
BB02452	Lithium, Total	mg/L	0.0000486	0.0154	0.200	0.189	0.193	0.196	0.170 to 0.230	94.5	70.0 to 130	2.09	20.0
BB02452	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.102	0.103	0.107	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BB02452	Sodium, Total	mg/L	0.00224	0.0440	5.00	4.58	4.68	4.70	4.25 to 5.75	91.6	70.0 to 130	2.16	20.0
BB02452	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0963	0.0969	0.0947	0.0850 to 0.115	96.3	70.0 to 130	0.621	20.0
BB02452	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0968	0.0972	0.0938	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02452	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.101	0.100	0.0993	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02452	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0996	0.102	0.102	0.0850 to 0.115	99.6	70.0 to 130	2.38	20.0
BB02452	Iron, Total	mg/L	0.000330	0.0176	0.2	0.198	0.202	0.204	0.170 to 0.230	99.0	70.0 to 130	2.00	20.0
BB02452	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.3	10.1	10.6	8.50 to 11.5	103	70.0 to 130	1.96	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 2/3/21 15:30

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB02448

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BB02450	Solids, Dissolved	mg/L	1.00	25.0			2860	49.0	40.0 to 60.0			0.351	5.00
BB02452	Sulfate	mg/L	-0.365	0.500	20.0	18.4	-0.371	18.7	18.0 to 22.0	92.0	80.0 to 120	0.00	20.0
BB02452	Chloride	mg/L	-0.0216	0.500	10.0	9.78	0.117	9.79	9.00 to 11.0	97.8	80.0 to 120	0.00	20.0
BB02452	Fluoride	mg/L	0.0177	0.0500	2.50	2.61	0.0183	2.66	2.25 to 2.75	104	80.0 to 120	0.00	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-34HO

Location Code: WMWGORAP
Collected: 2/3/21 16:22
Customer ID:
Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02449

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:51		1.015	0.0964	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 15:17		101.5	100	mg/L	7.0035	40.6	
* Iron, Total	2/9/21 11:00	2/10/21 12:51		1.015	1.93	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 12:51		1.015	0.249	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 12:51		1.015	28.5	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 15:17		101.5	736	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 13:25		1.015	2.56	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:39		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:39		1.015	0.00257	mg/L	0.000068	0.000203	
* Barium, Total	2/8/21 13:00	2/12/21 10:39		1.015	0.0543	mg/L	0.000101	0.000203	
* Beryllium, Total	2/8/21 13:00	2/12/21 10:39		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:39		1.015	0.000397	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:39		1.015	0.00753	mg/L	0.000068	0.000203	
* Potassium, Total	2/8/21 13:00	2/12/21 10:39		1.015	46.6	mg/L	0.169505	0.5075	
* Manganese, Total	2/8/21 13:00	2/12/21 10:39		1.015	0.369	mg/L	0.000068	0.000203	
* Selenium, Total	2/8/21 13:00	2/12/21 10:39		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:48	2/8/21 12:48		1.015	0.396	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO ₃	2/11/21 10:39	2/11/21 11:06		1	139	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	2930	mg/L		250	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-34HO

Location Code: WMWGORAP

Collected: 2/3/21 16:22

Customer ID:

Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02449

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	139	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	0.237	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 14:44	2/4/21 14:44		10	156	mg/L	5.00	10	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 11:24	2/5/21 11:24		1	0.298	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:00	2/10/21 13:00		50	1610	mg/L	25.00	50	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/3/21 16:19	2/3/21 16:19			4220.34	uS/cm			FA
pH	2/3/21 16:19	2/3/21 16:19			7.26	SU			FA
Temperature	2/3/21 16:19	2/3/21 16:19			15.45	C			FA
Turbidity	2/3/21 16:19	2/3/21 16:19			1.74	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.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 16:22

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-34HO

Laboratory ID Number: BB02449

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02452	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0957	0.0962	0.0994	0.0850 to 0.115	95.7	70.0 to 130	0.521	20.0
BB02452	Magnesium, Total	mg/L	0.00194	0.0462	5.00	4.88	4.99	5.03	4.25 to 5.75	97.6	70.0 to 130	2.23	20.0
BB02451	Manganese, Dissolved	mg/L	0.0000138	0.000147	0.10	0.110	0.112	0.105	0.0850 to 0.115	102	70.0 to 130	1.80	20.0
BB02452	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0968	0.0972	0.0938	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02452	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.101	0.100	0.0993	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02452	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0996	0.102	0.102	0.0850 to 0.115	99.6	70.0 to 130	2.38	20.0
BB02452	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.107	0.102	0.104	0.0850 to 0.115	107	70.0 to 130	4.78	20.0
BB02452	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0928	0.0929	0.0976	0.0850 to 0.115	92.8	70.0 to 130	0.108	20.0
BB02452	Boron, Total	mg/L	0.00109	0.0650	1.00	0.961	0.986	0.998	0.850 to 1.15	96.1	70.0 to 130	2.57	20.0
BB02452	Calcium, Total	mg/L	0.00138	0.152	5.00	4.94	5.06	5.08	4.25 to 5.75	98.8	70.0 to 130	2.40	20.0
BB02452	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.104	0.103	0.107	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02451	Iron, Dissolved	mg/L	0.0000366	0.0176	0.2	0.209	0.213	0.202	0.170 to 0.230	99.0	70.0 to 130	1.90	20.0
BB02452	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BB02452	Mercury, Total by CVAA	mg/L	0.0000514	0.000500	0.004	0.00427	0.00421	0.00445	0.00340 to 0.00460	107	70.0 to 130	1.42	20.0
BB02452	Lithium, Total	mg/L	0.0000486	0.0154	0.200	0.189	0.193	0.196	0.170 to 0.230	94.5	70.0 to 130	2.09	20.0
BB02452	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.102	0.103	0.107	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BB02452	Sodium, Total	mg/L	0.00224	0.0440	5.00	4.58	4.68	4.70	4.25 to 5.75	91.6	70.0 to 130	2.16	20.0
BB02452	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0963	0.0969	0.0947	0.0850 to 0.115	96.3	70.0 to 130	0.621	20.0
BB02452	Barium, Total	mg/L	0.0000108	0.000200	0.10	0.0971	0.0966	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BB02452	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0988	0.0970	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.84	20.0
BB02452	Iron, Total	mg/L	0.000330	0.0176	0.2	0.198	0.202	0.204	0.170 to 0.230	99.0	70.0 to 130	2.00	20.0
BB02452	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.3	10.1	10.6	8.50 to 11.5	103	70.0 to 130	1.96	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 16:22

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-34HO

Laboratory ID Number: BB02449

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02451	Alkalinity, Total as CaCO3	mg/L					222	52.0	45.0 to 55.0			0.00	10.0
BB02450	Solids, Dissolved	mg/L	1.00	25.0			2860	49.0	40.0 to 60.0			0.351	5.00
BB02452	Sulfate	mg/L	-0.365	0.500	20.0	18.4	-0.371	18.7	18.0 to 22.0	92.0	80.0 to 120	0.00	20.0
BB02452	Chloride	mg/L	-0.0216	0.500	10.0	9.78	0.117	9.79	9.00 to 11.0	97.8	80.0 to 120	0.00	20.0
BB02452	Fluoride	mg/L	0.0177	0.0500	2.50	2.61	0.0183	2.66	2.25 to 2.75	104	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.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-34HO DUP

Location Code: WMWGORAP
Collected: 2/3/21 16:22
Customer ID:
Submission Date: 2/4/21 11:51

Laboratory ID Number: BB02450

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:54		1.015	0.0948	mg/L	0.030000	0.1015	J
* Calcium, Total	2/9/21 11:00	2/10/21 15:21		101.5	103	mg/L	7.0035	40.6	
* Iron, Total	2/9/21 11:00	2/10/21 12:54		1.015	2.25	mg/L	0.008120	0.0406	
* Lithium, Total	2/9/21 11:00	2/10/21 12:54		1.015	0.250	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 12:54		1.015	28.5	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 15:21		101.5	751	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 13:28		1.015	2.39	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:42		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:42		1.015	0.00256	mg/L	0.000068	0.000203	
* Barium, Total	2/8/21 13:00	2/12/21 10:42		1.015	0.0527	mg/L	0.000101	0.000203	
* Beryllium, Total	2/8/21 13:00	2/12/21 10:42		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:42		1.015	0.000321	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:42		1.015	0.00681	mg/L	0.000068	0.000203	
* Potassium, Total	2/8/21 13:00	2/12/21 10:42		1.015	43.8	mg/L	0.169505	0.5075	
* Manganese, Total	2/8/21 13:00	2/12/21 10:42		1.015	0.381	mg/L	0.000068	0.000203	
* Selenium, Total	2/8/21 13:00	2/12/21 10:42		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:48	2/8/21 12:51		1.015	0.394	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:38		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO ₃	2/11/21 10:39	2/11/21 11:06		1	142	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	2840	mg/L		250	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-34HO DUP

Location Code: WMWGORAP
Collected: 2/3/21 16:22
Customer ID:
Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02450

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	142	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	0.221	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 14:45	2/4/21 14:45		10	146	mg/L	5.00	10	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 11:25	2/5/21 11:25		1	0.291	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:01	2/10/21 13:01		50	1610	mg/L	25.00	50	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/3/21 16:19	2/3/21 16:19			4220.34	uS/cm			FA
pH	2/3/21 16:19	2/3/21 16:19			7.26	SU			FA
Temperature	2/3/21 16:19	2/3/21 16:19			15.45	C			FA
Turbidity	2/3/21 16:19	2/3/21 16:19			1.74	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.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 16:22

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-34HO DUP

Laboratory ID Number: BB02450

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BB02452	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0957	0.0962	0.0994	0.0850 to 0.115	95.7	70.0 to 130	0.521	20.0
BB02452	Magnesium, Total	mg/L	0.00194	0.0462	5.00	4.88	4.99	5.03	4.25 to 5.75	97.6	70.0 to 130	2.23	20.0
BB02452	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.107	0.102	0.104	0.0850 to 0.115	107	70.0 to 130	4.78	20.0
BB02452	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0928	0.0929	0.0976	0.0850 to 0.115	92.8	70.0 to 130	0.108	20.0
BB02451	Manganese, Dissolved	mg/L	0.0000138	0.000147	0.10	0.110	0.112	0.105	0.0850 to 0.115	102	70.0 to 130	1.80	20.0
BB02452	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0968	0.0972	0.0938	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02452	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.101	0.100	0.0993	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02452	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0996	0.102	0.102	0.0850 to 0.115	99.6	70.0 to 130	2.38	20.0
BB02452	Barium, Total	mg/L	0.0000108	0.000200	0.10	0.0971	0.0966	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BB02452	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0988	0.0970	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.84	20.0
BB02452	Boron, Total	mg/L	0.00109	0.0650	1.00	0.961	0.986	0.998	0.850 to 1.15	96.1	70.0 to 130	2.57	20.0
BB02452	Calcium, Total	mg/L	0.00138	0.152	5.00	4.94	5.06	5.08	4.25 to 5.75	98.8	70.0 to 130	2.40	20.0
BB02452	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.104	0.103	0.107	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02451	Iron, Dissolved	mg/L	0.0000366	0.0176	0.2	0.209	0.213	0.202	0.170 to 0.230	99.0	70.0 to 130	1.90	20.0
BB02452	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BB02452	Mercury, Total by CVAA	mg/L	0.0000514	0.000500	0.004	0.00427	0.00421	0.00445	0.00340 to 0.00460	107	70.0 to 130	1.42	20.0
BB02452	Lithium, Total	mg/L	0.0000486	0.0154	0.200	0.189	0.193	0.196	0.170 to 0.230	94.5	70.0 to 130	2.09	20.0
BB02452	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.102	0.103	0.107	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BB02452	Sodium, Total	mg/L	0.00224	0.0440	5.00	4.58	4.68	4.70	4.25 to 5.75	91.6	70.0 to 130	2.16	20.0
BB02452	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0963	0.0969	0.0947	0.0850 to 0.115	96.3	70.0 to 130	0.621	20.0
BB02452	Iron, Total	mg/L	0.000330	0.0176	0.2	0.198	0.202	0.204	0.170 to 0.230	99.0	70.0 to 130	2.00	20.0
BB02452	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.3	10.1	10.6	8.50 to 11.5	103	70.0 to 130	1.96	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/3/21 16:22

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-34HO DUP

Laboratory ID Number: BB02450

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB02451	Alkalinity, Total as CaCO3	mg/L					222	52.0	45.0 to 55.0			0.00	10.0
BB02452	Sulfate	mg/L	-0.365	0.500	20.0	18.4	-0.371	18.7	18.0 to 22.0	92.0	80.0 to 120	0.00	20.0
BB02450	Solids, Dissolved	mg/L	1.00	25.0			2860	49.0	40.0 to 60.0			0.351	5.00
BB02452	Chloride	mg/L	-0.0216	0.500	10.0	9.78	0.117	9.79	9.00 to 11.0	97.8	80.0 to 120	0.00	20.0
BB02452	Fluoride	mg/L	0.0177	0.0500	2.50	2.61	0.0183	2.66	2.25 to 2.75	104	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.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-35HO

Location Code: WMWGORAP
Collected: 2/4/21 07:32
Customer ID:
Submission Date: 2/4/21 11:51

Laboratory ID Number: BB02451

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 12:58		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 12:58		1.015	3.30	mg/L	0.070035	0.406	
* Iron, Total	2/9/21 11:00	2/10/21 12:58		1.015	0.0357	mg/L	0.008120	0.0406	J
* Lithium, Total	2/9/21 11:00	2/10/21 12:58		1.015	0.0734	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/9/21 11:00	2/10/21 12:58		1.015	0.697	mg/L	0.021315	0.406	
* Sodium, Total	2/9/21 11:00	2/10/21 15:24		101.5	115	mg/L	2.030	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	2/8/21 12:00	2/9/21 13:32		1.015	0.0109	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:46		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:46		1.015	0.000442	mg/L	0.000068	0.000203	
* Barium, Total	2/8/21 13:00	2/12/21 10:46		1.015	0.0520	mg/L	0.000101	0.000203	
* Beryllium, Total	2/8/21 13:00	2/12/21 10:46		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:46		1.015	0.000211	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:46		1.015	0.00273	mg/L	0.000068	0.000203	
* Potassium, Total	2/8/21 13:00	2/12/21 10:46		1.015	3.75	mg/L	0.169505	0.5075	
* Manganese, Total	2/8/21 13:00	2/12/21 10:46		1.015	0.00860	mg/L	0.000068	0.000203	
* Selenium, Total	2/8/21 13:00	2/12/21 10:46		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	2/8/21 11:48	2/8/21 12:53		1.015	0.00846	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	2/11/21 10:39	2/11/21 11:06		1	222	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	339	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-35HO

Location Code: WMWGORAP
Collected: 2/4/21 07:32
Customer ID:
Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02451

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	216	mg/L			
Carbonate Alkalinity, (calc.)	2/11/21 10:39	2/11/21 11:06		1	6.12	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	2/4/21 14:46	2/4/21 14:46		2	23.9	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	2/5/21 11:26	2/5/21 11:26		1	0.152	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	2/10/21 13:02	2/10/21 13:02		1	25.3	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	2/4/21 07:29	2/4/21 07:29			554.30	uS/cm			FA
pH	2/4/21 07:29	2/4/21 07:29			8.35	SU			FA
Temperature	2/4/21 07:29	2/4/21 07:29			13.84	C			FA
Turbidity	2/4/21 07:29	2/4/21 07:29			1.01	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.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/4/21 07:32

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-35HO

Laboratory ID Number: BB02451

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB02452	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0957	0.0962	0.0994	0.0850 to 0.115	95.7	70.0 to 130	0.521	20.0
BB02452	Magnesium, Total	mg/L	0.00194	0.0462	5.00	4.88	4.99	5.03	4.25 to 5.75	97.6	70.0 to 130	2.23	20.0
BB02452	Iron, Total	mg/L	0.000330	0.0176	0.2	0.198	0.202	0.204	0.170 to 0.230	99.0	70.0 to 130	2.00	20.0
BB02452	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.3	10.1	10.6	8.50 to 11.5	103	70.0 to 130	1.96	20.0
BB02452	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.107	0.102	0.104	0.0850 to 0.115	107	70.0 to 130	4.78	20.0
BB02452	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0928	0.0929	0.0976	0.0850 to 0.115	92.8	70.0 to 130	0.108	20.0
BB02451	Iron, Dissolved	mg/L	0.0000366	0.0176	0.2	0.209	0.213	0.202	0.170 to 0.230	99.0	70.0 to 130	1.90	20.0
BB02452	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BB02452	Mercury, Total by CVAA	mg/L	0.0000514	0.000500	0.004	0.00427	0.00421	0.00445	0.00340 to 0.00460	107	70.0 to 130	1.42	20.0
BB02452	Lithium, Total	mg/L	0.0000486	0.0154	0.200	0.189	0.193	0.196	0.170 to 0.230	94.5	70.0 to 130	2.09	20.0
BB02452	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.102	0.103	0.107	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BB02452	Sodium, Total	mg/L	0.00224	0.0440	5.00	4.58	4.68	4.70	4.25 to 5.75	91.6	70.0 to 130	2.16	20.0
BB02452	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0963	0.0969	0.0947	0.0850 to 0.115	96.3	70.0 to 130	0.621	20.0
BB02451	Manganese, Dissolved	mg/L	0.0000138	0.000147	0.10	0.110	0.112	0.105	0.0850 to 0.115	102	70.0 to 130	1.80	20.0
BB02452	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0968	0.0972	0.0938	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02452	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.101	0.100	0.0993	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02452	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0996	0.102	0.102	0.0850 to 0.115	99.6	70.0 to 130	2.38	20.0
BB02452	Boron, Total	mg/L	0.00109	0.0650	1.00	0.961	0.986	0.998	0.850 to 1.15	96.1	70.0 to 130	2.57	20.0
BB02452	Calcium, Total	mg/L	0.00138	0.152	5.00	4.94	5.06	5.08	4.25 to 5.75	98.8	70.0 to 130	2.40	20.0
BB02452	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.104	0.103	0.107	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02452	Barium, Total	mg/L	0.0000108	0.000200	0.10	0.0971	0.0966	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BB02452	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0988	0.0970	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.84	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
 LBM 2/25/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 2/4/21 07:32

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond - MW-35HO

Laboratory ID Number: BB02451

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02451	Alkalinity, Total as CaCO3	mg/L					222	52.0	45.0 to 55.0			0.00	10.0
BB02450	Solids, Dissolved	mg/L	1.00	25.0			2860	49.0	40.0 to 60.0			0.351	5.00
BB02452	Sulfate	mg/L	-0.365	0.500	20.0	18.4	-0.371	18.7	18.0 to 22.0	92.0	80.0 to 120	0.00	20.0
BB02452	Chloride	mg/L	-0.0216	0.500	10.0	9.78	0.117	9.79	9.00 to 11.0	97.8	80.0 to 120	0.00	20.0
BB02452	Fluoride	mg/L	0.0177	0.0500	2.50	2.61	0.0183	2.66	2.25 to 2.75	104	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.
 LBM 2/25/21

Certificate Of Analysis

Description: Gorgas Ash Pond Equipment Blank-1

Location Code: WMWGORAPEB
Collected: 2/4/21 08:30
Customer ID:
Submittal Date: 2/4/21 11:51

Laboratory ID Number: BB02452

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	2/9/21 11:00	2/10/21 13:01		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/9/21 11:00	2/10/21 13:01		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/9/21 11:00	2/10/21 13:01		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/9/21 11:00	2/10/21 13:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/9/21 11:00	2/10/21 13:01		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	2/9/21 11:00	2/10/21 13:01		1.015	Not Detected	mg/L	0.02030	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Arsenic, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000101	0.000203	U
* Beryllium, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/8/21 13:00	2/12/21 10:49		1.015	0.000277	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000507	0.001015	U
* Thallium, Total	2/8/21 13:00	2/12/21 10:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	2/9/21 11:17	2/10/21 11:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	2/5/21 13:45	2/9/21 13:00		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	2/4/21 14:48	2/4/21 14:48		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	2/5/21 11:27	2/5/21 11:27		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	2/10/21 13:04	2/10/21 13:04		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 2/4/21 08:30

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB02452

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB02452	Molybdenum, Total	mg/L	0.0000176	0.000147	0.10	0.0957	0.0962	0.0994	0.0850 to 0.115	95.7	70.0 to 130	0.521	20.0
BB02452	Magnesium, Total	mg/L	0.00194	0.0462	5.00	4.88	4.99	5.03	4.25 to 5.75	97.6	70.0 to 130	2.23	20.0
BB02452	Barium, Total	mg/L	0.0000108	0.000200	0.10	0.0971	0.0966	0.102	0.0850 to 0.115	97.1	70.0 to 130	0.516	20.0
BB02452	Cadmium, Total	mg/L	0.0000000	0.000147	0.10	0.0988	0.0970	0.100	0.0850 to 0.115	98.8	70.0 to 130	1.84	20.0
BB02452	Arsenic, Total	mg/L	0.0000392	0.000147	0.10	0.107	0.102	0.104	0.0850 to 0.115	107	70.0 to 130	4.78	20.0
BB02452	Antimony, Total	mg/L	0.000120	0.00100	0.10	0.0928	0.0929	0.0976	0.0850 to 0.115	92.8	70.0 to 130	0.108	20.0
BB02452	Beryllium, Total	mg/L	0.0000149	0.000880	0.10	0.0968	0.0972	0.0938	0.0850 to 0.115	96.8	70.0 to 130	0.412	20.0
BB02452	Lead, Total	mg/L	0.0000033	0.000147	0.10	0.101	0.100	0.0993	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BB02452	Selenium, Total	mg/L	0.0000442	0.00100	0.10	0.0996	0.102	0.102	0.0850 to 0.115	99.6	70.0 to 130	2.38	20.0
BB02452	Boron, Total	mg/L	0.00109	0.0650	1.00	0.961	0.986	0.998	0.850 to 1.15	96.1	70.0 to 130	2.57	20.0
BB02452	Calcium, Total	mg/L	0.00138	0.152	5.00	4.94	5.06	5.08	4.25 to 5.75	98.8	70.0 to 130	2.40	20.0
BB02452	Cobalt, Total	mg/L	-0.0000961	0.000147	0.10	0.104	0.103	0.107	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BB02452	Chromium, Total	mg/L	-0.0000157	0.000440	0.10	0.103	0.101	0.105	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BB02452	Mercury, Total by CVAA	mg/L	0.0000514	0.000500	0.004	0.00427	0.00421	0.00445	0.00340 to 0.00460	107	70.0 to 130	1.42	20.0
BB02452	Lithium, Total	mg/L	0.0000486	0.0154	0.200	0.189	0.193	0.196	0.170 to 0.230	94.5	70.0 to 130	2.09	20.0
BB02452	Manganese, Total	mg/L	0.0000266	0.000147	0.10	0.102	0.103	0.107	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BB02452	Sodium, Total	mg/L	0.00224	0.0440	5.00	4.58	4.68	4.70	4.25 to 5.75	91.6	70.0 to 130	2.16	20.0
BB02452	Thallium, Total	mg/L	-0.000130	0.000147	0.10	0.0963	0.0969	0.0947	0.0850 to 0.115	96.3	70.0 to 130	0.621	20.0
BB02452	Iron, Total	mg/L	0.000330	0.0176	0.2	0.198	0.202	0.204	0.170 to 0.230	99.0	70.0 to 130	2.00	20.0
BB02452	Potassium, Total	mg/L	-0.00197	0.367	10.0	10.3	10.1	10.6	8.50 to 11.5	103	70.0 to 130	1.96	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 2/4/21 08:30

Customer ID:

Delivery Date: 2/4/21 11:51

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB02452

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB02452	Sulfate	mg/L	-0.365	0.500	20.0	18.4	-0.371	18.7	18.0 to 22.0	92.0	80.0 to 120	0.00	20.0
BB02450	Solids, Dissolved	mg/L	1.00	25.0			2860	49.0	40.0 to 60.0			0.351	5.00
BB02452	Chloride	mg/L	-0.0216	0.500	10.0	9.78	0.117	9.79	9.00 to 11.0	97.8	80.0 to 120	0.00	20.0
BB02452	Fluoride	mg/L	0.0177	0.0500	2.50	2.61	0.0183	2.66	2.25 to 2.75	104	80.0 to 120	0.00	20.0

Comments:

Definitions

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

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-33HO	02/03/2021	13:30	6	Groundwater		BB02447
FB-1	02/03/2021	15:30	4	Field Blank		BB02448
MW-34HO	02/03/2021	16:22	6	Groundwater		BB02449
MW-34HO Dup	02/03/2021	16:22	6	Sample Duplicate		BB02450
MW-35HO	02/04/2021	07:32	6	Groundwater		BB02451
EB-1	02/04/2021	08:30	4	Equipment Blank		BB02452

Relinquished By <i>Anthony Goggins</i>	Received By <i>Greg Dyer</i>	Date/Time 02/04/2021 11:22

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	7061-38344-3-3		
Sample Event	1307		
		Cooler Temp	0.0 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	8129-45507-2-2

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Anthony Goggins	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 N/A	N/A	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments MS/MSD collected at MW-33HO. LBM 02/04/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-33HO	02/03/2021	13:30	3	Groundwater		BB02453
FB-1	02/03/2021	15:30	1	Field Blank		BB02454
MW-34HO	02/03/2021	16:22	1	Groundwater		BB02455
MW-34HO Dup	02/03/2021	16:22	1	Sample Duplicate		BB02456
MW-35HO	02/04/2021	07:32	1	Groundwater		BB02457
EB-1	02/04/2021	08:30	1	Equipment Blank		BB02458

Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>James M. McKeef</i>	02/04/2021 11:23

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	7061-38344-3-3	
Sample Event	1307	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	8129-45507-2-2	

Bottles/Pre-Preserved Bottles are provided by the GTL

March 15, 2021

Laura Midkiff
Alabama Power
744 Highway 87
GSC #8
Calera, AL 35040

RE: Project: GORGAS ASH POND WMWGORAP_1307
Pace Project No.: 92521945

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory on February 11, 2021. 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,



Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Brooke Caton, Alabama Power
Renee Jernigan, 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: GORGAS ASH POND WMWGORAP_1307
Pace Project No.: 92521945

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 #: 9526

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

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SAMPLE SUMMARY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92521945001	BB02453 MW-33HO	Water	02/03/21 13:30	02/11/21 09:50
92521945002	BB02454 FB-1	Water	02/03/21 15:30	02/11/21 09:50
92521945003	BB02455 MW-34HO	Water	02/03/21 16:22	02/11/21 09:50
92521945004	BB02456 MW-34HO DUP	Water	02/03/21 16:22	02/11/21 09:50
92521945005	BB02457 MW-35HO	Water	02/04/21 07:32	02/11/21 09:50
92521945006	BB02458 EB-1	Water	02/04/21 08:30	02/11/21 09:50
92521945007	BB02453 MW-33HO MS	Water	02/03/21 13:30	02/11/21 09:50
92521945008	BB02453 MW-33HO MSD	Water	02/03/21 13:30	02/11/21 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92521945001	BB02453 MW-33HO	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521945002	BB02454 FB-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521945003	BB02455 MW-34HO	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521945004	BB02456 MW-34HO DUP	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521945005	BB02457 MW-35HO	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521945006	BB02458 EB-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92521945007	BB02453 MW-33HO MS	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92521945008	BB02453 MW-33HO MSD	EPA 9315	JJY	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: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: March 15, 2021

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: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: March 15, 2021

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: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Alabama Power

Date: March 15, 2021

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: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02453 MW-33HO **Lab ID: 92521945001** Collected: 02/03/21 13:30 Received: 02/11/21 09:50 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	0.269U ± 0.219 (0.379) C:91% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0435U ± 0.287 (0.660) C:73% T:90%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.313U ± 0.506 (1.04)	pCi/L	03/12/21 11:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02454 FB-1 **Lab ID: 92521945002** Collected: 02/03/21 15:30 Received: 02/11/21 09:50 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	0.372U ± 0.302 (0.568) C:86% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.186U ± 0.313 (0.773) C:73% T:81%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.372U ± 0.615 (1.34)	pCi/L	03/12/21 11:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02455 MW-34HO **Lab ID: 92521945003** Collected: 02/03/21 16:22 Received: 02/11/21 09:50 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	0.154U ± 0.199 (0.413) C:87% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.331U ± 0.363 (0.759) C:72% T:84%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.485U ± 0.562 (1.17)	pCi/L	03/12/21 11:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02456 MW-34HO DUP **Lab ID: 92521945004** Collected: 02/03/21 16:22 Received: 02/11/21 09:50 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	0.242U ± 0.219 (0.391) C:84% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.162U ± 0.344 (0.760) C:70% T:86%	pCi/L	03/02/21 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.404U ± 0.563 (1.15)	pCi/L	03/12/21 11:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02457 MW-35HO **Lab ID: 92521945005** Collected: 02/04/21 07:32 Received: 02/11/21 09:50 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	0.240U ± 0.215 (0.380) C:86% T:NA	pCi/L	03/12/21 09:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.287U ± 0.313 (0.650) C:70% T:90%	pCi/L	03/02/21 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.527U ± 0.528 (1.03)	pCi/L	03/12/21 11:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02458 EB-1 **Lab ID: 92521945006** Collected: 02/04/21 08:30 Received: 02/11/21 09:50 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	0.0841U ± 0.194 (0.458) C:94% T:NA	pCi/L	03/12/21 09:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0697U ± 0.298 (0.678) C:73% T:89%	pCi/L	03/02/21 11:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.154U ± 0.492 (1.14)	pCi/L	03/12/21 11:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02453 MW-33HO MS **Lab ID: 92521945007** Collected: 02/03/21 13:30 Received: 02/11/21 09:50 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	105.17 %REC ± NA (NA) C:NA T:NA	pCi/L	03/12/21 09:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	77.85 %REC ± NA (NA) C:NA T:NA	pCi/L	03/02/21 11:24	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

Sample: BB02453 MW-33HO MSD **Lab ID: 92521945008** Collected: 02/03/21 13:30 Received: 02/11/21 09:50 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	99.87 %REC 5.17RPD ± NA (NA) C:NA T:NA	pCi/L	03/12/21 09:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	83.97 %REC 7.56 RPD ± NA (NA) C:NA T:NA	pCi/L	03/02/21 11:24	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

QC Batch: 435117

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92521945001, 92521945002, 92521945003, 92521945004, 92521945005, 92521945006, 92521945007, 92521945008

METHOD BLANK: 2100681

Matrix: Water

Associated Lab Samples: 92521945001, 92521945002, 92521945003, 92521945004, 92521945005, 92521945006, 92521945007, 92521945008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.301 ± 0.264 (0.532) C:86% T:90%	pCi/L	03/02/21 11:21	

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: GORGAS ASH POND WMWGORAP_1307
Pace Project No.: 92521945

QC Batch:	435460	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	92521945001, 92521945002, 92521945003, 92521945004, 92521945005, 92521945006, 92521945007, 92521945008		

METHOD BLANK:	2102228	Matrix:	Water
Associated Lab Samples:	92521945001, 92521945002, 92521945003, 92521945004, 92521945005, 92521945006, 92521945007, 92521945008		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0490 ± 0.139 (0.343) C:97% T:NA	pCi/L	03/12/21 09:04	

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: GORGAS ASH POND WMWGORAP_1307

Pace Project No.: 92521945

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(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: GORGAS ASH POND WMWGORAP_1307
Pace Project No.: 92521945

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92521945001	BB02453 MW-33HO	EPA 9315	435460		
92521945002	BB02454 FB-1	EPA 9315	435460		
92521945003	BB02455 MW-34HO	EPA 9315	435460		
92521945004	BB02456 MW-34HO DUP	EPA 9315	435460		
92521945005	BB02457 MW-35HO	EPA 9315	435460		
92521945006	BB02458 EB-1	EPA 9315	435460		
92521945007	BB02453 MW-33HO MS	EPA 9315	435460		
92521945008	BB02453 MW-33HO MSD	EPA 9315	435460		
92521945001	BB02453 MW-33HO	EPA 9320	435117		
92521945002	BB02454 FB-1	EPA 9320	435117		
92521945003	BB02455 MW-34HO	EPA 9320	435117		
92521945004	BB02456 MW-34HO DUP	EPA 9320	435117		
92521945005	BB02457 MW-35HO	EPA 9320	435117		
92521945006	BB02458 EB-1	EPA 9320	435117		
92521945007	BB02453 MW-33HO MS	EPA 9320	435117		
92521945008	BB02453 MW-33HO MSD	EPA 9320	435117		
92521945001	BB02453 MW-33HO	Total Radium Calculation	438456		
92521945002	BB02454 FB-1	Total Radium Calculation	438456		
92521945003	BB02455 MW-34HO	Total Radium Calculation	438456		
92521945004	BB02456 MW-34HO DUP	Total Radium Calculation	438456		
92521945005	BB02457 MW-35HO	Total Radium Calculation	438456		
92521945006	BB02458 EB-1	Total Radium Calculation	438456		

REPORT OF LABORATORY ANALYSIS

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Client Name: Duce NC

WO#: 92521945



Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 9551 0669 7782

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:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:	
				1007101	BSM	2/12/21
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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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						
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	BSM	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:	BSM	Date: 2/12/21 Survey Meter SN: 1563

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.

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
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040
Email To: lbmidkiff@southernco.com
Phone: 205-664-6197
Requested Due Date: 28 days

Section B Required Project Information:
Report To: Laura Midkiff
Copy To: Brooke Caton & Renee Jernigan
Purchase Order #: APC57570-0001
Project Name: Gorgas Ash Pond
Project Number: WNWVCGORAP 1307

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: Kevin Herring
Pace Profile #: AL

Page: _____ Of _____

Regulatory Agency: _____	
State/Location: _____	

ITEM #	SAMPLE ID (A-Z, 0-9 /, -) Sample ids must be unique	MATRIX Drinking Water Surface Water Wastewater Sewage Oil Wipe Air Other Tissue	CODE DW SW WW S OIL WIP AIR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analyses Test				Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)											
						START DATE	END DATE			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Y/N	EPA 9315	EPA 9320	Total Radium Sum							Matrix Spike/Matrix Spike D										
						DATE	TIME			DATE	TIME	1	2	3	4	5	6	7	8	9	10							11	12	13	14	15	16					
1	BB02453 MM-33HO			GW G					3		X																											
2	BB02454 FB-1			GW G					1		X																											
3	BB02455 MM-34HO			GW G					1		X																											
4	BB02456 MM-34HO DUP			GW G					1		X																											
5	BB02457 MM-38HO			GW G					1		X																											
6	BB02459 EB-1			GW G					1		X																											
7																																						
8																																						
9																																						
10																																						
11																																						
12																																						
ADDITIONAL COMMENTS																																						
RELINQUISHED BY / AFFILIATION		Laura Midkiff APC GTL		DATE	2/5/2021	TIME	8:30	ACCEPTED BY / AFFILIATION		[Signature]		DATE	2/1/21	TIME	0830	SAMPLE CONDITIONS		- W W Y																				

SAMPLER NAME AND SIGNATURE: _____
PRINT Name of SAMPLER: _____
SIGNATURE of SAMPLER: _____
DATE Signed: _____

Quality Control Sample Performance Assessment



Test: Ra-226
 Analyst: JJY
 Date: 2/19/2021
 Worklist: 58878
 Matrix: DW

Method Blank Assessment	
MB Sample ID	2102228
MB concentration:	0.049
M/B Counting Uncertainty:	0.139
MB MDC:	0.343
MB Numerical Performance Indicator:	0.69
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD58878	N LCSD58878
Count Date:	3/12/2021	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.039	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.228	
Target Conc. (pCi/L, g, F):	10.564	
Uncertainty (Calculated):	0.127	
Result (pCi/L, g, F):	9.396	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.973	
Numerical Performance Indicator:	-2.33	
Percent Recovery:	88.94%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

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 Counting Uncertainty (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result Counting Uncertainty (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.

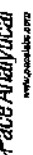
Comments:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/3/2021	2/3/2021
Sample I.D.:	92521943002	92521945001
Sample MS I.D.:	92521943005	92521945007
Sample MSD I.D.:	92521943006	92521945008
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.040	24.040
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):	0.205	0.216
MS Target Conc. (pCi/L, g, F):	23.448	22.289
MSD Aliquot (L, g, F):	0.200	0.215
MSD Target Conc. (pCi/L, g, F):	24.014	22.381
MS Spike Uncertainty (calculated):	0.281	0.267
MSD Spike Uncertainty (calculated):	0.288	0.269
Sample Result Counting Uncertainty (pCi/L, g, F):	0.130	0.269
Sample Matrix Spike Result:	0.182	0.215
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	24.285	23.709
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.631	1.631
Sample Matrix Spike Duplicate Result:	24.573	22.621
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.734	1.626
MS Numerical Performance Indicator:	0.831	1.355
MSD Numerical Performance Indicator:	0.475	-0.034
MS Percent Recovery:	103.01%	105.17%
MSD Percent Recovery:	101.78%	99.87%
MS Status vs Numerical Indicator:	N/A	N/A
MSD Status vs Numerical Indicator:	N/A	N/A
MS Status vs Recovery:	Pass	Pass
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	MS/MSD 1	MS/MSD 2
Sample I.D.:	92521943002	92521945001
Sample MS I.D.:	92521943005	92521945007
Sample MSD I.D.:	92521943006	92521945008
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.040	24.040
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):	0.205	0.216
MS Target Conc. (pCi/L, g, F):	23.448	22.289
MSD Aliquot (L, g, F):	0.200	0.215
MSD Target Conc. (pCi/L, g, F):	24.014	22.381
MS Spike Uncertainty (calculated):	0.281	0.267
MSD Spike Uncertainty (calculated):	0.288	0.269
Sample Result Counting Uncertainty (pCi/L, g, F):	0.130	0.269
Sample Matrix Spike Result:	0.182	0.215
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	24.285	23.709
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.631	1.631
Sample Matrix Spike Duplicate Result:	24.573	22.621
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.734	1.626
MS Numerical Performance Indicator:	0.831	1.355
MSD Numerical Performance Indicator:	0.475	-0.034
MS Percent Recovery:	103.01%	105.17%
MSD Percent Recovery:	101.78%	99.87%
MS Status vs Numerical Indicator:	N/A	N/A
MSD Status vs Numerical Indicator:	N/A	N/A
MS Status vs Recovery:	Pass	Pass
MSD Status vs Recovery:	Pass	Pass
MS/MSD Upper % Recovery Limits:	125%	125%
MS/MSD Lower % Recovery Limits:	75%	75%

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: VAL
Date: 2/23/2021
Worklist: 58852
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID:	2100881
MB concentration:	0.301
MB 2 Sigma CSU:	0.264
MB MDC:	0.532
MB Numerical Performance Indicator:	2.23
MB Status vs Numerical Indicator:	Warning
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment	LCS# (Y or N)?	
	LCS#	N
Count Date:	3/2/2021	LCS#58852
Spike ID:	21-003	
Decay Corrected Spike Concentration (pCi/mL):	38.623	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.806	
Target Conc. (pCi/L, g, F):	4.790	
Uncertainty (Calculated):	0.235	
Result (pCi/L, g, F):	5.227	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.160	
Numerical Performance Indicator:	0.72	
Percent Recovery:	109.14%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	136%	
Lower % Recovery Limits:	80%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS#LCS# in the space below:
Sample ID:	
Duplicate Sample ID:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (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:

ONE
3/3/21

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	2/23/2021	2/23/2021
Sample ID:	92521943002	92521945001
Sample MS ID:	92521943005	92521945007
Sample MSD ID:	92521943006	92521945008
Spike ID:	21-003	21-003
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	38.969	38.969
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):	0.818	0.818
MS Target Conc. (pCi/L, g, F):	9.525	9.525
MSD Aliquot (L, g, F):	0.809	0.814
MSD Target Conc. (pCi/L, g, F):	9.639	9.579
MS Spike Uncertainty (calculated):	0.467	0.467
MSD Spike Uncertainty (calculated):	0.472	0.469
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.015	0.044
Sample Matrix Spike Result:	0.313	0.287
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	7.801	7.458
Sample Matrix Spike Duplicate Result:	1.806	1.531
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	8.018	8.087
MS Numerical Performance Indicator:	1.832	1.665
MSD Numerical Performance Indicator:	-2.003	-2.544
MS Percent Recovery:	-1.858	-1.716
MSD Percent Recovery:	81.75%	77.86%
MS Status vs Numerical Indicator:	Warning	Warning
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 ID:	92521943002
Sample MS ID:	92521943005
Sample MSD ID:	92521943006
Spike ID:	21-003
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	7.801
Sample Matrix Spike Duplicate Result:	1.608
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	8.018
Sample Matrix Spike Duplicate Duplicate Result:	1.632
Duplicate Numerical Performance Indicator:	-0.185
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-31H	2/1/2021 11:31	Conductivity	742.91	uS/cm
GS-AP-MW-31H	2/1/2021 11:31	DO	1.05	mg/L
GS-AP-MW-31H	2/1/2021 11:31	Depth to Water Detail	236.39	ft
GS-AP-MW-31H	2/1/2021 11:31	Oxidation Reduction Potention	-215.51	mv
GS-AP-MW-31H	2/1/2021 11:31	pH	8.38	SU
GS-AP-MW-31H	2/1/2021 11:31	Temperature	14.35	C
GS-AP-MW-31H	2/1/2021 11:31	Turbidity	11.31	NTU
GS-AP-MW-31H	2/1/2021 11:36	Conductivity	776.11	uS/cm
GS-AP-MW-31H	2/1/2021 11:36	DO	0.92	mg/L
GS-AP-MW-31H	2/1/2021 11:36	Depth to Water Detail	236.72	ft
GS-AP-MW-31H	2/1/2021 11:36	Oxidation Reduction Potention	-223.35	mv
GS-AP-MW-31H	2/1/2021 11:36	pH	8.42	SU
GS-AP-MW-31H	2/1/2021 11:36	Temperature	13.99	C
GS-AP-MW-31H	2/1/2021 11:36	Turbidity	10.26	NTU
GS-AP-MW-31H	2/1/2021 11:41	Conductivity	761.78	uS/cm
GS-AP-MW-31H	2/1/2021 11:41	DO	0.9	mg/L
GS-AP-MW-31H	2/1/2021 11:41	Depth to Water Detail	236.88	ft
GS-AP-MW-31H	2/1/2021 11:41	Oxidation Reduction Potention	-230.7	mv
GS-AP-MW-31H	2/1/2021 11:41	pH	8.45	SU
GS-AP-MW-31H	2/1/2021 11:41	Temperature	14.06	C
GS-AP-MW-31H	2/1/2021 11:41	Turbidity	7.73	NTU
GS-AP-MW-31H	2/1/2021 11:46	Conductivity	727.27	uS/cm
GS-AP-MW-31H	2/1/2021 11:46	DO	0.83	mg/L
GS-AP-MW-31H	2/1/2021 11:46	Depth to Water Detail	236.94	ft
GS-AP-MW-31H	2/1/2021 11:46	Oxidation Reduction Potention	-238.33	mv
GS-AP-MW-31H	2/1/2021 11:46	pH	8.47	SU
GS-AP-MW-31H	2/1/2021 11:46	Temperature	14.23	C
GS-AP-MW-31H	2/1/2021 11:46	Turbidity	6.48	NTU
GS-AP-MW-31H	2/1/2021 11:51	Conductivity	691.81	uS/cm
GS-AP-MW-31H	2/1/2021 11:51	DO	0.81	mg/L
GS-AP-MW-31H	2/1/2021 11:51	Depth to Water Detail	237.14	ft
GS-AP-MW-31H	2/1/2021 11:51	Oxidation Reduction Potention	-243.85	mv
GS-AP-MW-31H	2/1/2021 11:51	pH	8.5	SU
GS-AP-MW-31H	2/1/2021 11:51	Temperature	14.24	C
GS-AP-MW-31H	2/1/2021 11:51	Turbidity	5.72	NTU
GS-AP-MW-31H	2/1/2021 11:56	Conductivity	661.2	uS/cm
GS-AP-MW-31H	2/1/2021 11:56	DO	0.75	mg/L
GS-AP-MW-31H	2/1/2021 11:56	Depth to Water Detail	237.23	ft
GS-AP-MW-31H	2/1/2021 11:56	Oxidation Reduction Potention	-249.05	mv
GS-AP-MW-31H	2/1/2021 11:56	pH	8.53	SU
GS-AP-MW-31H	2/1/2021 11:56	Temperature	14.48	C
GS-AP-MW-31H	2/1/2021 11:56	Turbidity	4.82	NTU
GS-AP-MW-31H	2/1/2021 12:01	Conductivity	631.06	uS/cm
GS-AP-MW-31H	2/1/2021 12:01	DO	0.73	mg/L
GS-AP-MW-31H	2/1/2021 12:01	Depth to Water Detail	237.28	ft
GS-AP-MW-31H	2/1/2021 12:01	Oxidation Reduction Potention	-251.85	mv

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-31H	2/1/2021 12:01	pH	8.57	SU
GS-AP-MW-31H	2/1/2021 12:01	Temperature	14.39	C
GS-AP-MW-31H	2/1/2021 12:01	Turbidity	3.85	NTU
GS-AP-MW-31H	2/1/2021 12:06	Conductivity	602.48	uS/cm
GS-AP-MW-31H	2/1/2021 12:06	DO	0.73	mg/L
GS-AP-MW-31H	2/1/2021 12:06	Depth to Water Detail	237.31	ft
GS-AP-MW-31H	2/1/2021 12:06	Oxidation Reduction Potention	-253.83	mv
GS-AP-MW-31H	2/1/2021 12:06	pH	8.6	SU
GS-AP-MW-31H	2/1/2021 12:06	Temperature	14.28	C
GS-AP-MW-31H	2/1/2021 12:06	Turbidity	4.04	NTU
GS-AP-MW-31H	2/1/2021 12:11	Conductivity	583.95	uS/cm
GS-AP-MW-31H	2/1/2021 12:11	DO	0.7	mg/L
GS-AP-MW-31H	2/1/2021 12:11	Depth to Water Detail	237.34	ft
GS-AP-MW-31H	2/1/2021 12:11	Oxidation Reduction Potention	-257.34	mv
GS-AP-MW-31H	2/1/2021 12:11	pH	8.63	SU
GS-AP-MW-31H	2/1/2021 12:11	Temperature	14.38	C
GS-AP-MW-31H	2/1/2021 12:11	Turbidity	3.62	NTU
GS-AP-MW-31H	2/1/2021 12:16	Conductivity	597.27	uS/cm
GS-AP-MW-31H	2/1/2021 12:16	DO	0.73	mg/L
GS-AP-MW-31H	2/1/2021 12:16	Depth to Water Detail	237.36	ft
GS-AP-MW-31H	2/1/2021 12:16	Oxidation Reduction Potention	-258.64	mv
GS-AP-MW-31H	2/1/2021 12:16	pH	8.66	SU
GS-AP-MW-31H	2/1/2021 12:16	Temperature	14.37	C
GS-AP-MW-31H	2/1/2021 12:16	Turbidity	2.9	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-2	2/1/2021 13:53	Conductivity	548.52	uS/cm
GS-AP-MW-2	2/1/2021 13:53	DO	2.24	mg/L
GS-AP-MW-2	2/1/2021 13:53	Depth to Water Detail	147.21	ft
GS-AP-MW-2	2/1/2021 13:53	Oxidation Reduction Potention	-180.17	mv
GS-AP-MW-2	2/1/2021 13:53	pH	9.09	SU
GS-AP-MW-2	2/1/2021 13:53	Temperature	13.81	C
GS-AP-MW-2	2/1/2021 13:53	Turbidity	2.04	NTU
GS-AP-MW-2	2/1/2021 13:58	Conductivity	559.91	uS/cm
GS-AP-MW-2	2/1/2021 13:58	DO	1.43	mg/L
GS-AP-MW-2	2/1/2021 13:58	Depth to Water Detail	147.31	ft
GS-AP-MW-2	2/1/2021 13:58	Oxidation Reduction Potention	-189.72	mv
GS-AP-MW-2	2/1/2021 13:58	pH	9.27	SU
GS-AP-MW-2	2/1/2021 13:58	Temperature	14.05	C
GS-AP-MW-2	2/1/2021 13:58	Turbidity	1.36	NTU
GS-AP-MW-2	2/1/2021 14:03	Conductivity	562.58	uS/cm
GS-AP-MW-2	2/1/2021 14:03	DO	1.25	mg/L
GS-AP-MW-2	2/1/2021 14:03	Depth to Water Detail	147.31	ft
GS-AP-MW-2	2/1/2021 14:03	Oxidation Reduction Potention	-195.97	mv
GS-AP-MW-2	2/1/2021 14:03	pH	9.31	SU
GS-AP-MW-2	2/1/2021 14:03	Temperature	14.06	C
GS-AP-MW-2	2/1/2021 14:03	Turbidity	1.8	NTU
GS-AP-MW-2	2/1/2021 14:08	Conductivity	558.27	uS/cm
GS-AP-MW-2	2/1/2021 14:08	DO	1.17	mg/L
GS-AP-MW-2	2/1/2021 14:08	Depth to Water Detail	147.31	ft
GS-AP-MW-2	2/1/2021 14:08	Oxidation Reduction Potention	-197.88	mv
GS-AP-MW-2	2/1/2021 14:08	pH	9.32	SU
GS-AP-MW-2	2/1/2021 14:08	Temperature	14.18	C
GS-AP-MW-2	2/1/2021 14:08	Turbidity	1.94	NTU
GS-AP-MW-2	2/1/2021 14:13	Conductivity	552.82	uS/cm
GS-AP-MW-2	2/1/2021 14:13	DO	1.1	mg/L
GS-AP-MW-2	2/1/2021 14:13	Depth to Water Detail	147.31	ft
GS-AP-MW-2	2/1/2021 14:13	Oxidation Reduction Potention	-200.26	mv
GS-AP-MW-2	2/1/2021 14:13	pH	9.31	SU
GS-AP-MW-2	2/1/2021 14:13	Temperature	14.13	C
GS-AP-MW-2	2/1/2021 14:13	Turbidity	1.57	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	2/2/2021 11:04	Conductivity	520.37	uS/cm
GS-AP-MW-7	2/2/2021 11:04	DO	0.43	mg/L
GS-AP-MW-7	2/2/2021 11:04	Depth to Water Detail	9.84	ft
GS-AP-MW-7	2/2/2021 11:04	Oxidation Reduction Potention	-137.6	mv
GS-AP-MW-7	2/2/2021 11:04	pH	7.39	SU
GS-AP-MW-7	2/2/2021 11:04	Temperature	15.15	C
GS-AP-MW-7	2/2/2021 11:04	Turbidity	23	NTU
GS-AP-MW-7	2/2/2021 11:09	Conductivity	501.43	uS/cm
GS-AP-MW-7	2/2/2021 11:09	DO	0.36	mg/L
GS-AP-MW-7	2/2/2021 11:09	Depth to Water Detail	9.89	ft
GS-AP-MW-7	2/2/2021 11:09	Oxidation Reduction Potention	-137.43	mv
GS-AP-MW-7	2/2/2021 11:09	pH	7.43	SU
GS-AP-MW-7	2/2/2021 11:09	Temperature	15.26	C
GS-AP-MW-7	2/2/2021 11:09	Turbidity	35.2	NTU
GS-AP-MW-7	2/2/2021 11:14	Conductivity	487.72	uS/cm
GS-AP-MW-7	2/2/2021 11:14	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 11:14	Depth to Water Detail	9.94	ft
GS-AP-MW-7	2/2/2021 11:14	Oxidation Reduction Potention	-141.87	mv
GS-AP-MW-7	2/2/2021 11:14	pH	7.47	SU
GS-AP-MW-7	2/2/2021 11:14	Temperature	15.29	C
GS-AP-MW-7	2/2/2021 11:14	Turbidity	48.5	NTU
GS-AP-MW-7	2/2/2021 11:19	Conductivity	488.28	uS/cm
GS-AP-MW-7	2/2/2021 11:19	DO	0.31	mg/L
GS-AP-MW-7	2/2/2021 11:19	Depth to Water Detail	9.98	ft
GS-AP-MW-7	2/2/2021 11:19	Oxidation Reduction Potention	-141.95	mv
GS-AP-MW-7	2/2/2021 11:19	pH	7.5	SU
GS-AP-MW-7	2/2/2021 11:19	Temperature	15.28	C
GS-AP-MW-7	2/2/2021 11:19	Turbidity	54.3	NTU
GS-AP-MW-7	2/2/2021 11:24	Conductivity	489.95	uS/cm
GS-AP-MW-7	2/2/2021 11:24	DO	0.3	mg/L
GS-AP-MW-7	2/2/2021 11:24	Depth to Water Detail	10.01	ft
GS-AP-MW-7	2/2/2021 11:24	Oxidation Reduction Potention	-145.43	mv
GS-AP-MW-7	2/2/2021 11:24	pH	7.53	SU
GS-AP-MW-7	2/2/2021 11:24	Temperature	15.27	C
GS-AP-MW-7	2/2/2021 11:24	Turbidity	52.4	NTU
GS-AP-MW-7	2/2/2021 11:29	Conductivity	488.82	uS/cm
GS-AP-MW-7	2/2/2021 11:29	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 11:29	Depth to Water Detail	10.06	ft
GS-AP-MW-7	2/2/2021 11:29	Oxidation Reduction Potention	-147.43	mv
GS-AP-MW-7	2/2/2021 11:29	pH	7.57	SU
GS-AP-MW-7	2/2/2021 11:29	Temperature	15.38	C
GS-AP-MW-7	2/2/2021 11:29	Turbidity	60.3	NTU
GS-AP-MW-7	2/2/2021 11:34	Conductivity	487.95	uS/cm
GS-AP-MW-7	2/2/2021 11:34	DO	0.31	mg/L
GS-AP-MW-7	2/2/2021 11:34	Depth to Water Detail	10.08	ft
GS-AP-MW-7	2/2/2021 11:34	Oxidation Reduction Potention	-148.78	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	2/2/2021 11:34	pH	7.59	SU
GS-AP-MW-7	2/2/2021 11:34	Temperature	15.49	C
GS-AP-MW-7	2/2/2021 11:34	Turbidity	47.9	NTU
GS-AP-MW-7	2/2/2021 11:39	Conductivity	488.36	uS/cm
GS-AP-MW-7	2/2/2021 11:39	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 11:39	Depth to Water Detail	10.09	ft
GS-AP-MW-7	2/2/2021 11:39	Oxidation Reduction Potention	-148.37	mv
GS-AP-MW-7	2/2/2021 11:39	pH	7.62	SU
GS-AP-MW-7	2/2/2021 11:39	Temperature	15.49	C
GS-AP-MW-7	2/2/2021 11:39	Turbidity	59.6	NTU
GS-AP-MW-7	2/2/2021 11:44	Conductivity	489.2	uS/cm
GS-AP-MW-7	2/2/2021 11:44	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 11:44	Depth to Water Detail	10.11	ft
GS-AP-MW-7	2/2/2021 11:44	Oxidation Reduction Potention	-152.61	mv
GS-AP-MW-7	2/2/2021 11:44	pH	7.63	SU
GS-AP-MW-7	2/2/2021 11:44	Temperature	15.4	C
GS-AP-MW-7	2/2/2021 11:44	Turbidity	56.5	NTU
GS-AP-MW-7	2/2/2021 11:49	Conductivity	489.43	uS/cm
GS-AP-MW-7	2/2/2021 11:49	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 11:49	Depth to Water Detail	10.14	ft
GS-AP-MW-7	2/2/2021 11:49	Oxidation Reduction Potention	-151.02	mv
GS-AP-MW-7	2/2/2021 11:49	pH	7.65	SU
GS-AP-MW-7	2/2/2021 11:49	Temperature	15.34	C
GS-AP-MW-7	2/2/2021 11:49	Turbidity	70.5	NTU
GS-AP-MW-7	2/2/2021 11:54	Conductivity	489.42	uS/cm
GS-AP-MW-7	2/2/2021 11:54	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 11:54	Depth to Water Detail	10.15	ft
GS-AP-MW-7	2/2/2021 11:54	Oxidation Reduction Potention	-151.83	mv
GS-AP-MW-7	2/2/2021 11:54	pH	7.67	SU
GS-AP-MW-7	2/2/2021 11:54	Temperature	15.38	C
GS-AP-MW-7	2/2/2021 11:54	Turbidity	118	NTU
GS-AP-MW-7	2/2/2021 11:59	Conductivity	488.79	uS/cm
GS-AP-MW-7	2/2/2021 11:59	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 11:59	Depth to Water Detail	10.17	ft
GS-AP-MW-7	2/2/2021 11:59	Oxidation Reduction Potention	-154.3	mv
GS-AP-MW-7	2/2/2021 11:59	pH	7.68	SU
GS-AP-MW-7	2/2/2021 11:59	Temperature	15.43	C
GS-AP-MW-7	2/2/2021 11:59	Turbidity	81.7	NTU
GS-AP-MW-7	2/2/2021 12:04	Conductivity	488.94	uS/cm
GS-AP-MW-7	2/2/2021 12:04	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:04	Depth to Water Detail	10.19	ft
GS-AP-MW-7	2/2/2021 12:04	Oxidation Reduction Potention	-155.35	mv
GS-AP-MW-7	2/2/2021 12:04	pH	7.69	SU
GS-AP-MW-7	2/2/2021 12:04	Temperature	15.47	C
GS-AP-MW-7	2/2/2021 12:04	Turbidity	72.2	NTU
GS-AP-MW-7	2/2/2021 12:09	Conductivity	488.69	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	2/2/2021 12:09	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:09	Depth to Water Detail	10.19	ft
GS-AP-MW-7	2/2/2021 12:09	Oxidation Reduction Potention	-156.17	mv
GS-AP-MW-7	2/2/2021 12:09	pH	7.71	SU
GS-AP-MW-7	2/2/2021 12:09	Temperature	15.54	C
GS-AP-MW-7	2/2/2021 12:09	Turbidity	69.4	NTU
GS-AP-MW-7	2/2/2021 12:14	Conductivity	488.86	uS/cm
GS-AP-MW-7	2/2/2021 12:14	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:14	Depth to Water Detail	10.2	ft
GS-AP-MW-7	2/2/2021 12:14	Oxidation Reduction Potention	-155.63	mv
GS-AP-MW-7	2/2/2021 12:14	pH	7.71	SU
GS-AP-MW-7	2/2/2021 12:14	Temperature	15.49	C
GS-AP-MW-7	2/2/2021 12:14	Turbidity	75.4	NTU
GS-AP-MW-7	2/2/2021 12:19	Conductivity	489.55	uS/cm
GS-AP-MW-7	2/2/2021 12:19	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:19	Depth to Water Detail	10.22	ft
GS-AP-MW-7	2/2/2021 12:19	Oxidation Reduction Potention	-158.18	mv
GS-AP-MW-7	2/2/2021 12:19	pH	7.72	SU
GS-AP-MW-7	2/2/2021 12:19	Temperature	15.57	C
GS-AP-MW-7	2/2/2021 12:19	Turbidity	63.7	NTU
GS-AP-MW-7	2/2/2021 12:24	Conductivity	488.43	uS/cm
GS-AP-MW-7	2/2/2021 12:24	DO	0.33	mg/L
GS-AP-MW-7	2/2/2021 12:24	Depth to Water Detail	10.23	ft
GS-AP-MW-7	2/2/2021 12:24	Oxidation Reduction Potention	-157.09	mv
GS-AP-MW-7	2/2/2021 12:24	pH	7.73	SU
GS-AP-MW-7	2/2/2021 12:24	Temperature	15.53	C
GS-AP-MW-7	2/2/2021 12:24	Turbidity	67.1	NTU
GS-AP-MW-7	2/2/2021 12:29	Conductivity	488.51	uS/cm
GS-AP-MW-7	2/2/2021 12:29	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:29	Depth to Water Detail	10.26	ft
GS-AP-MW-7	2/2/2021 12:29	Oxidation Reduction Potention	-158.21	mv
GS-AP-MW-7	2/2/2021 12:29	pH	7.74	SU
GS-AP-MW-7	2/2/2021 12:29	Temperature	15.56	C
GS-AP-MW-7	2/2/2021 12:29	Turbidity	62.5	NTU
GS-AP-MW-7	2/2/2021 12:34	Conductivity	488.65	uS/cm
GS-AP-MW-7	2/2/2021 12:34	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:34	Depth to Water Detail	10.29	ft
GS-AP-MW-7	2/2/2021 12:34	Oxidation Reduction Potention	-158.2	mv
GS-AP-MW-7	2/2/2021 12:34	pH	7.74	SU
GS-AP-MW-7	2/2/2021 12:34	Temperature	15.55	C
GS-AP-MW-7	2/2/2021 12:34	Turbidity	86.9	NTU
GS-AP-MW-7	2/2/2021 12:39	Conductivity	491.01	uS/cm
GS-AP-MW-7	2/2/2021 12:39	DO	0.31	mg/L
GS-AP-MW-7	2/2/2021 12:39	Depth to Water Detail	10.32	ft
GS-AP-MW-7	2/2/2021 12:39	Oxidation Reduction Potention	-159.88	mv
GS-AP-MW-7	2/2/2021 12:39	pH	7.74	SU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	2/2/2021 12:39	Temperature	15.47	C
GS-AP-MW-7	2/2/2021 12:39	Turbidity	64.3	NTU
GS-AP-MW-7	2/2/2021 12:44	Conductivity	488.76	uS/cm
GS-AP-MW-7	2/2/2021 12:44	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:44	Depth to Water Detail	10.34	ft
GS-AP-MW-7	2/2/2021 12:44	Oxidation Reduction Potention	-159.8	mv
GS-AP-MW-7	2/2/2021 12:44	pH	7.75	SU
GS-AP-MW-7	2/2/2021 12:44	Temperature	15.62	C
GS-AP-MW-7	2/2/2021 12:44	Turbidity	70.6	NTU
GS-AP-MW-7	2/2/2021 12:49	Conductivity	489.09	uS/cm
GS-AP-MW-7	2/2/2021 12:49	DO	0.33	mg/L
GS-AP-MW-7	2/2/2021 12:49	Depth to Water Detail	10.34	ft
GS-AP-MW-7	2/2/2021 12:49	Oxidation Reduction Potention	-158.74	mv
GS-AP-MW-7	2/2/2021 12:49	pH	7.75	SU
GS-AP-MW-7	2/2/2021 12:49	Temperature	15.56	C
GS-AP-MW-7	2/2/2021 12:49	Turbidity	76.4	NTU
GS-AP-MW-7	2/2/2021 12:54	Conductivity	488.87	uS/cm
GS-AP-MW-7	2/2/2021 12:54	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:54	Depth to Water Detail	10.36	ft
GS-AP-MW-7	2/2/2021 12:54	Oxidation Reduction Potention	-160.4	mv
GS-AP-MW-7	2/2/2021 12:54	pH	7.76	SU
GS-AP-MW-7	2/2/2021 12:54	Temperature	15.53	C
GS-AP-MW-7	2/2/2021 12:54	Turbidity	66.5	NTU
GS-AP-MW-7	2/2/2021 12:59	Conductivity	489.26	uS/cm
GS-AP-MW-7	2/2/2021 12:59	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 12:59	Depth to Water Detail	10.36	ft
GS-AP-MW-7	2/2/2021 12:59	Oxidation Reduction Potention	-160.34	mv
GS-AP-MW-7	2/2/2021 12:59	pH	7.76	SU
GS-AP-MW-7	2/2/2021 12:59	Temperature	15.58	C
GS-AP-MW-7	2/2/2021 12:59	Turbidity	67.6	NTU
GS-AP-MW-7	2/2/2021 13:04	Conductivity	490.41	uS/cm
GS-AP-MW-7	2/2/2021 13:04	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 13:04	Depth to Water Detail	10.37	ft
GS-AP-MW-7	2/2/2021 13:04	Oxidation Reduction Potention	-159.55	mv
GS-AP-MW-7	2/2/2021 13:04	pH	7.76	SU
GS-AP-MW-7	2/2/2021 13:04	Temperature	15.58	C
GS-AP-MW-7	2/2/2021 13:04	Turbidity	56.5	NTU
GS-AP-MW-7	2/2/2021 13:09	Conductivity	492.37	uS/cm
GS-AP-MW-7	2/2/2021 13:09	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 13:09	Depth to Water Detail	10.4	ft
GS-AP-MW-7	2/2/2021 13:09	Oxidation Reduction Potention	-161.15	mv
GS-AP-MW-7	2/2/2021 13:09	pH	7.76	SU
GS-AP-MW-7	2/2/2021 13:09	Temperature	15.57	C
GS-AP-MW-7	2/2/2021 13:09	Turbidity	48.7	NTU
GS-AP-MW-7	2/2/2021 13:14	Conductivity	489.39	uS/cm
GS-AP-MW-7	2/2/2021 13:14	DO	0.32	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	2/2/2021 13:14	Depth to Water Detail	10.41	ft
GS-AP-MW-7	2/2/2021 13:14	Oxidation Reduction Potention	-161.98	mv
GS-AP-MW-7	2/2/2021 13:14	pH	7.77	SU
GS-AP-MW-7	2/2/2021 13:14	Temperature	15.64	C
GS-AP-MW-7	2/2/2021 13:14	Turbidity	59.2	NTU
GS-AP-MW-7	2/2/2021 13:19	Conductivity	488.96	uS/cm
GS-AP-MW-7	2/2/2021 13:19	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 13:19	Depth to Water Detail	10.42	ft
GS-AP-MW-7	2/2/2021 13:19	Oxidation Reduction Potention	-162.05	mv
GS-AP-MW-7	2/2/2021 13:19	pH	7.77	SU
GS-AP-MW-7	2/2/2021 13:19	Temperature	15.63	C
GS-AP-MW-7	2/2/2021 13:19	Turbidity	66.1	NTU
GS-AP-MW-7	2/2/2021 13:24	Conductivity	489.05	uS/cm
GS-AP-MW-7	2/2/2021 13:24	DO	0.32	mg/L
GS-AP-MW-7	2/2/2021 13:24	Depth to Water Detail	10.43	ft
GS-AP-MW-7	2/2/2021 13:24	Oxidation Reduction Potention	-162.01	mv
GS-AP-MW-7	2/2/2021 13:24	pH	7.78	SU
GS-AP-MW-7	2/2/2021 13:24	Temperature	15.61	C
GS-AP-MW-7	2/2/2021 13:24	Turbidity	66.1	NTU
GS-AP-MW-7	2/2/2021 13:29	Conductivity	489.98	uS/cm
GS-AP-MW-7	2/2/2021 13:29	DO	0.31	mg/L
GS-AP-MW-7	2/2/2021 13:29	Depth to Water Detail	10.43	ft
GS-AP-MW-7	2/2/2021 13:29	Oxidation Reduction Potention	-161.46	mv
GS-AP-MW-7	2/2/2021 13:29	pH	7.77	SU
GS-AP-MW-7	2/2/2021 13:29	Temperature	15.66	C
GS-AP-MW-7	2/2/2021 13:29	Turbidity	62.7	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6S	2/3/2021 8:52	Conductivity	520.47	uS/cm
GS-AP-MW-6S	2/3/2021 8:52	DO	0.26	mg/L
GS-AP-MW-6S	2/3/2021 8:52	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 8:52	Oxidation Reduction Potention	-88.76	mv
GS-AP-MW-6S	2/3/2021 8:52	pH	6.99	SU
GS-AP-MW-6S	2/3/2021 8:52	Temperature	15.77	C
GS-AP-MW-6S	2/3/2021 8:52	Turbidity	39.5	NTU
GS-AP-MW-6S	2/3/2021 8:57	Conductivity	508.13	uS/cm
GS-AP-MW-6S	2/3/2021 8:57	DO	0.7	mg/L
GS-AP-MW-6S	2/3/2021 8:57	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 8:57	Oxidation Reduction Potention	-78.81	mv
GS-AP-MW-6S	2/3/2021 8:57	pH	7	SU
GS-AP-MW-6S	2/3/2021 8:57	Temperature	15.62	C
GS-AP-MW-6S	2/3/2021 8:57	Turbidity	19.4	NTU
GS-AP-MW-6S	2/3/2021 9:02	Conductivity	496.21	uS/cm
GS-AP-MW-6S	2/3/2021 9:02	DO	1.26	mg/L
GS-AP-MW-6S	2/3/2021 9:02	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:02	Oxidation Reduction Potention	-64.33	mv
GS-AP-MW-6S	2/3/2021 9:02	pH	6.97	SU
GS-AP-MW-6S	2/3/2021 9:02	Temperature	15.57	C
GS-AP-MW-6S	2/3/2021 9:02	Turbidity	9.5	NTU
GS-AP-MW-6S	2/3/2021 9:07	Conductivity	484.83	uS/cm
GS-AP-MW-6S	2/3/2021 9:07	DO	1.69	mg/L
GS-AP-MW-6S	2/3/2021 9:07	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:07	Oxidation Reduction Potention	-56.42	mv
GS-AP-MW-6S	2/3/2021 9:07	pH	6.98	SU
GS-AP-MW-6S	2/3/2021 9:07	Temperature	15.35	C
GS-AP-MW-6S	2/3/2021 9:07	Turbidity	6.31	NTU
GS-AP-MW-6S	2/3/2021 9:12	Conductivity	479.79	uS/cm
GS-AP-MW-6S	2/3/2021 9:12	DO	2.05	mg/L
GS-AP-MW-6S	2/3/2021 9:12	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:12	Oxidation Reduction Potention	-51.64	mv
GS-AP-MW-6S	2/3/2021 9:12	pH	6.99	SU
GS-AP-MW-6S	2/3/2021 9:12	Temperature	15.37	C
GS-AP-MW-6S	2/3/2021 9:12	Turbidity	7.17	NTU
GS-AP-MW-6S	2/3/2021 9:17	Conductivity	471.24	uS/cm
GS-AP-MW-6S	2/3/2021 9:17	DO	2.36	mg/L
GS-AP-MW-6S	2/3/2021 9:17	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:17	Oxidation Reduction Potention	-49.01	mv
GS-AP-MW-6S	2/3/2021 9:17	pH	6.99	SU
GS-AP-MW-6S	2/3/2021 9:17	Temperature	15.34	C
GS-AP-MW-6S	2/3/2021 9:17	Turbidity	5.25	NTU
GS-AP-MW-6S	2/3/2021 9:22	Conductivity	466.16	uS/cm
GS-AP-MW-6S	2/3/2021 9:22	DO	2.61	mg/L
GS-AP-MW-6S	2/3/2021 9:22	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:22	Oxidation Reduction Potention	-47.16	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6S	2/3/2021 9:22	pH	7.03	SU
GS-AP-MW-6S	2/3/2021 9:22	Temperature	15.28	C
GS-AP-MW-6S	2/3/2021 9:22	Turbidity	3.98	NTU
GS-AP-MW-6S	2/3/2021 9:27	Conductivity	462.55	uS/cm
GS-AP-MW-6S	2/3/2021 9:27	DO	2.82	mg/L
GS-AP-MW-6S	2/3/2021 9:27	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:27	Oxidation Reduction Potention	-46.36	mv
GS-AP-MW-6S	2/3/2021 9:27	pH	7.03	SU
GS-AP-MW-6S	2/3/2021 9:27	Temperature	15.23	C
GS-AP-MW-6S	2/3/2021 9:27	Turbidity	6.86	NTU
GS-AP-MW-6S	2/3/2021 9:32	Conductivity	458.44	uS/cm
GS-AP-MW-6S	2/3/2021 9:32	DO	2.99	mg/L
GS-AP-MW-6S	2/3/2021 9:32	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:32	Oxidation Reduction Potention	-45.96	mv
GS-AP-MW-6S	2/3/2021 9:32	pH	7.04	SU
GS-AP-MW-6S	2/3/2021 9:32	Temperature	15.14	C
GS-AP-MW-6S	2/3/2021 9:32	Turbidity	6.55	NTU
GS-AP-MW-6S	2/3/2021 9:37	Conductivity	456.84	uS/cm
GS-AP-MW-6S	2/3/2021 9:37	DO	3.02	mg/L
GS-AP-MW-6S	2/3/2021 9:37	Depth to Water Detail	16.59	ft
GS-AP-MW-6S	2/3/2021 9:37	Oxidation Reduction Potention	-46.53	mv
GS-AP-MW-6S	2/3/2021 9:37	pH	7.05	SU
GS-AP-MW-6S	2/3/2021 9:37	Temperature	15.27	C
GS-AP-MW-6S	2/3/2021 9:37	Turbidity	3.58	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6D	2/3/2021 10:21	Conductivity	486.26	uS/cm
GS-AP-MW-6D	2/3/2021 10:21	DO	0.2	mg/L
GS-AP-MW-6D	2/3/2021 10:21	Depth to Water Detail	11.62	ft
GS-AP-MW-6D	2/3/2021 10:21	Oxidation Reduction Potention	-193.74	mv
GS-AP-MW-6D	2/3/2021 10:21	pH	7.58	SU
GS-AP-MW-6D	2/3/2021 10:21	Temperature	16.61	C
GS-AP-MW-6D	2/3/2021 10:21	Turbidity	0.82	NTU
GS-AP-MW-6D	2/3/2021 10:26	Conductivity	489.51	uS/cm
GS-AP-MW-6D	2/3/2021 10:26	DO	0.18	mg/L
GS-AP-MW-6D	2/3/2021 10:26	Depth to Water Detail	11.63	ft
GS-AP-MW-6D	2/3/2021 10:26	Oxidation Reduction Potention	-210.62	mv
GS-AP-MW-6D	2/3/2021 10:26	pH	7.55	SU
GS-AP-MW-6D	2/3/2021 10:26	Temperature	16.72	C
GS-AP-MW-6D	2/3/2021 10:26	Turbidity	0.1	NTU
GS-AP-MW-6D	2/3/2021 10:31	Conductivity	491.82	uS/cm
GS-AP-MW-6D	2/3/2021 10:31	DO	0.18	mg/L
GS-AP-MW-6D	2/3/2021 10:31	Depth to Water Detail	11.63	ft
GS-AP-MW-6D	2/3/2021 10:31	Oxidation Reduction Potention	-225.53	mv
GS-AP-MW-6D	2/3/2021 10:31	pH	7.55	SU
GS-AP-MW-6D	2/3/2021 10:31	Temperature	16.76	C
GS-AP-MW-6D	2/3/2021 10:31	Turbidity	0.01	NTU
GS-AP-MW-6D	2/3/2021 10:36	Conductivity	493.96	uS/cm
GS-AP-MW-6D	2/3/2021 10:36	DO	0.18	mg/L
GS-AP-MW-6D	2/3/2021 10:36	Depth to Water Detail	11.63	ft
GS-AP-MW-6D	2/3/2021 10:36	Oxidation Reduction Potention	-236.54	mv
GS-AP-MW-6D	2/3/2021 10:36	pH	7.55	SU
GS-AP-MW-6D	2/3/2021 10:36	Temperature	16.75	C
GS-AP-MW-6D	2/3/2021 10:36	Turbidity	0.01	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	2/3/2021 11:37	Conductivity	1477.9	uS/cm
GS-AP-MW-6V	2/3/2021 11:37	DO	0.43	mg/L
GS-AP-MW-6V	2/3/2021 11:37	Depth to Water Detail	19.44	ft
GS-AP-MW-6V	2/3/2021 11:37	Oxidation Reduction Potention	-253.01	mv
GS-AP-MW-6V	2/3/2021 11:37	pH	8.66	SU
GS-AP-MW-6V	2/3/2021 11:37	Temperature	17.4	C
GS-AP-MW-6V	2/3/2021 11:37	Turbidity	10.87	NTU
GS-AP-MW-6V	2/3/2021 11:42	Conductivity	1474.26	uS/cm
GS-AP-MW-6V	2/3/2021 11:42	DO	0.48	mg/L
GS-AP-MW-6V	2/3/2021 11:42	Depth to Water Detail	23.64	ft
GS-AP-MW-6V	2/3/2021 11:42	Oxidation Reduction Potention	-265.05	mv
GS-AP-MW-6V	2/3/2021 11:42	pH	8.7	SU
GS-AP-MW-6V	2/3/2021 11:42	Temperature	17.48	C
GS-AP-MW-6V	2/3/2021 11:42	Turbidity	5.57	NTU
GS-AP-MW-6V	2/3/2021 11:47	Conductivity	1479.24	uS/cm
GS-AP-MW-6V	2/3/2021 11:47	DO	0.48	mg/L
GS-AP-MW-6V	2/3/2021 11:47	Depth to Water Detail	27.43	ft
GS-AP-MW-6V	2/3/2021 11:47	Oxidation Reduction Potention	-269.27	mv
GS-AP-MW-6V	2/3/2021 11:47	pH	8.73	SU
GS-AP-MW-6V	2/3/2021 11:47	Temperature	17.55	C
GS-AP-MW-6V	2/3/2021 11:47	Turbidity	2.7	NTU
GS-AP-MW-6V	2/3/2021 11:52	Conductivity	1481.95	uS/cm
GS-AP-MW-6V	2/3/2021 11:52	DO	0.45	mg/L
GS-AP-MW-6V	2/3/2021 11:52	Depth to Water Detail	31.24	ft
GS-AP-MW-6V	2/3/2021 11:52	Oxidation Reduction Potention	-271.77	mv
GS-AP-MW-6V	2/3/2021 11:52	pH	8.74	SU
GS-AP-MW-6V	2/3/2021 11:52	Temperature	17.46	C
GS-AP-MW-6V	2/3/2021 11:52	Turbidity	2.38	NTU
GS-AP-MW-6V	2/3/2021 11:57	Conductivity	1478.64	uS/cm
GS-AP-MW-6V	2/3/2021 11:57	DO	0.43	mg/L
GS-AP-MW-6V	2/3/2021 11:57	Depth to Water Detail	34.21	ft
GS-AP-MW-6V	2/3/2021 11:57	Oxidation Reduction Potention	-274.41	mv
GS-AP-MW-6V	2/3/2021 11:57	pH	8.75	SU
GS-AP-MW-6V	2/3/2021 11:57	Temperature	17.46	C
GS-AP-MW-6V	2/3/2021 11:57	Turbidity	4.42	NTU
GS-AP-MW-6V	2/3/2021 12:02	Conductivity	1475.84	uS/cm
GS-AP-MW-6V	2/3/2021 12:02	DO	0.45	mg/L
GS-AP-MW-6V	2/3/2021 12:02	Depth to Water Detail	37.96	ft
GS-AP-MW-6V	2/3/2021 12:02	Oxidation Reduction Potention	-276.67	mv
GS-AP-MW-6V	2/3/2021 12:02	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 12:02	Temperature	17.5	C
GS-AP-MW-6V	2/3/2021 12:02	Turbidity	8.64	NTU
GS-AP-MW-6V	2/3/2021 12:07	Conductivity	1473.48	uS/cm
GS-AP-MW-6V	2/3/2021 12:07	DO	0.46	mg/L
GS-AP-MW-6V	2/3/2021 12:07	Depth to Water Detail	41.52	ft
GS-AP-MW-6V	2/3/2021 12:07	Oxidation Reduction Potention	-276.3	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	2/3/2021 12:07	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 12:07	Temperature	17.52	C
GS-AP-MW-6V	2/3/2021 12:07	Turbidity	2.67	NTU
GS-AP-MW-6V	2/3/2021 12:12	Conductivity	1445.71	uS/cm
GS-AP-MW-6V	2/3/2021 12:12	DO	0.2	mg/L
GS-AP-MW-6V	2/3/2021 12:12	Depth to Water Detail	45.21	ft
GS-AP-MW-6V	2/3/2021 12:12	Oxidation Reduction Potention	-282.09	mv
GS-AP-MW-6V	2/3/2021 12:12	pH	8.78	SU
GS-AP-MW-6V	2/3/2021 12:12	Temperature	17.54	C
GS-AP-MW-6V	2/3/2021 12:12	Turbidity	2.7	NTU
GS-AP-MW-6V	2/3/2021 12:17	Conductivity	1428.61	uS/cm
GS-AP-MW-6V	2/3/2021 12:17	DO	0.18	mg/L
GS-AP-MW-6V	2/3/2021 12:17	Depth to Water Detail	48.89	ft
GS-AP-MW-6V	2/3/2021 12:17	Oxidation Reduction Potention	-276.79	mv
GS-AP-MW-6V	2/3/2021 12:17	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 12:17	Temperature	17.52	C
GS-AP-MW-6V	2/3/2021 12:17	Turbidity	5.93	NTU
GS-AP-MW-6V	2/3/2021 12:22	Conductivity	1420.46	uS/cm
GS-AP-MW-6V	2/3/2021 12:22	DO	0.18	mg/L
GS-AP-MW-6V	2/3/2021 12:22	Depth to Water Detail	52.25	ft
GS-AP-MW-6V	2/3/2021 12:22	Oxidation Reduction Potention	-271.45	mv
GS-AP-MW-6V	2/3/2021 12:22	pH	8.76	SU
GS-AP-MW-6V	2/3/2021 12:22	Temperature	17.51	C
GS-AP-MW-6V	2/3/2021 12:22	Turbidity	4.84	NTU
GS-AP-MW-6V	2/3/2021 12:27	Conductivity	1413.94	uS/cm
GS-AP-MW-6V	2/3/2021 12:27	DO	0.17	mg/L
GS-AP-MW-6V	2/3/2021 12:27	Depth to Water Detail	55.4	ft
GS-AP-MW-6V	2/3/2021 12:27	Oxidation Reduction Potention	-266.14	mv
GS-AP-MW-6V	2/3/2021 12:27	pH	8.76	SU
GS-AP-MW-6V	2/3/2021 12:27	Temperature	17.5	C
GS-AP-MW-6V	2/3/2021 12:27	Turbidity	8.68	NTU
GS-AP-MW-6V	2/3/2021 12:32	Conductivity	1409.99	uS/cm
GS-AP-MW-6V	2/3/2021 12:32	DO	0.17	mg/L
GS-AP-MW-6V	2/3/2021 12:32	Depth to Water Detail	58.37	ft
GS-AP-MW-6V	2/3/2021 12:32	Oxidation Reduction Potention	-261.48	mv
GS-AP-MW-6V	2/3/2021 12:32	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 12:32	Temperature	17.48	C
GS-AP-MW-6V	2/3/2021 12:32	Turbidity	2.87	NTU
GS-AP-MW-6V	2/3/2021 12:37	Conductivity	1409.14	uS/cm
GS-AP-MW-6V	2/3/2021 12:37	DO	0.17	mg/L
GS-AP-MW-6V	2/3/2021 12:37	Depth to Water Detail	60.22	ft
GS-AP-MW-6V	2/3/2021 12:37	Oxidation Reduction Potention	-258.26	mv
GS-AP-MW-6V	2/3/2021 12:37	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 12:37	Temperature	17.45	C
GS-AP-MW-6V	2/3/2021 12:37	Turbidity	2.58	NTU
GS-AP-MW-6V	2/3/2021 12:42	Conductivity	1408.51	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	2/3/2021 12:42	DO	0.17	mg/L
GS-AP-MW-6V	2/3/2021 12:42	Depth to Water Detail	65.04	ft
GS-AP-MW-6V	2/3/2021 12:42	Oxidation Reduction Potention	-253.57	mv
GS-AP-MW-6V	2/3/2021 12:42	pH	8.75	SU
GS-AP-MW-6V	2/3/2021 12:42	Temperature	17.4	C
GS-AP-MW-6V	2/3/2021 12:42	Turbidity	4.37	NTU
GS-AP-MW-6V	2/3/2021 12:47	Conductivity	1410.42	uS/cm
GS-AP-MW-6V	2/3/2021 12:47	DO	0.17	mg/L
GS-AP-MW-6V	2/3/2021 12:47	Depth to Water Detail	69.36	ft
GS-AP-MW-6V	2/3/2021 12:47	Oxidation Reduction Potention	-251.31	mv
GS-AP-MW-6V	2/3/2021 12:47	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 12:47	Temperature	17.32	C
GS-AP-MW-6V	2/3/2021 12:47	Turbidity	4.36	NTU
GS-AP-MW-6V	2/3/2021 12:52	Conductivity	1412.82	uS/cm
GS-AP-MW-6V	2/3/2021 12:52	DO	0.18	mg/L
GS-AP-MW-6V	2/3/2021 12:52	Depth to Water Detail	71.51	ft
GS-AP-MW-6V	2/3/2021 12:52	Oxidation Reduction Potention	-248.48	mv
GS-AP-MW-6V	2/3/2021 12:52	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 12:52	Temperature	17.32	C
GS-AP-MW-6V	2/3/2021 12:52	Turbidity	5.86	NTU
GS-AP-MW-6V	2/3/2021 12:57	Conductivity	1410.74	uS/cm
GS-AP-MW-6V	2/3/2021 12:57	DO	0.17	mg/L
GS-AP-MW-6V	2/3/2021 12:57	Depth to Water Detail	74.54	ft
GS-AP-MW-6V	2/3/2021 12:57	Oxidation Reduction Potention	-247.57	mv
GS-AP-MW-6V	2/3/2021 12:57	pH	8.76	SU
GS-AP-MW-6V	2/3/2021 12:57	Temperature	17.33	C
GS-AP-MW-6V	2/3/2021 12:57	Turbidity	7.05	NTU
GS-AP-MW-6V	2/3/2021 13:02	Conductivity	1408.77	uS/cm
GS-AP-MW-6V	2/3/2021 13:02	DO	0.17	mg/L
GS-AP-MW-6V	2/3/2021 13:02	Depth to Water Detail	77.83	ft
GS-AP-MW-6V	2/3/2021 13:02	Oxidation Reduction Potention	-244.03	mv
GS-AP-MW-6V	2/3/2021 13:02	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 13:02	Temperature	17.33	C
GS-AP-MW-6V	2/3/2021 13:02	Turbidity	2.5	NTU
GS-AP-MW-6V	2/3/2021 13:07	Conductivity	1404.45	uS/cm
GS-AP-MW-6V	2/3/2021 13:07	DO	0.43	mg/L
GS-AP-MW-6V	2/3/2021 13:07	Depth to Water Detail	78.31	ft
GS-AP-MW-6V	2/3/2021 13:07	Oxidation Reduction Potention	-225.77	mv
GS-AP-MW-6V	2/3/2021 13:07	pH	8.77	SU
GS-AP-MW-6V	2/3/2021 13:07	Temperature	16.65	C
GS-AP-MW-6V	2/3/2021 13:07	Turbidity	2.07	NTU
GS-AP-MW-6V	2/3/2021 13:12	Conductivity	1390.95	uS/cm
GS-AP-MW-6V	2/3/2021 13:12	DO	0.66	mg/L
GS-AP-MW-6V	2/3/2021 13:12	Depth to Water Detail	78.35	ft
GS-AP-MW-6V	2/3/2021 13:12	Oxidation Reduction Potention	-211.44	mv
GS-AP-MW-6V	2/3/2021 13:12	pH	8.83	SU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	2/3/2021 13:12	Temperature	16.8	C
GS-AP-MW-6V	2/3/2021 13:12	Turbidity	2.81	NTU
GS-AP-MW-6V	2/3/2021 13:17	Conductivity	1381.89	uS/cm
GS-AP-MW-6V	2/3/2021 13:17	DO	0.66	mg/L
GS-AP-MW-6V	2/3/2021 13:17	Depth to Water Detail	78.41	ft
GS-AP-MW-6V	2/3/2021 13:17	Oxidation Reduction Potention	-208.88	mv
GS-AP-MW-6V	2/3/2021 13:17	pH	8.9	SU
GS-AP-MW-6V	2/3/2021 13:17	Temperature	16.76	C
GS-AP-MW-6V	2/3/2021 13:17	Turbidity	3.12	NTU
GS-AP-MW-6V	2/3/2021 13:22	Conductivity	1378.13	uS/cm
GS-AP-MW-6V	2/3/2021 13:22	DO	0.62	mg/L
GS-AP-MW-6V	2/3/2021 13:22	Depth to Water Detail	78.49	ft
GS-AP-MW-6V	2/3/2021 13:22	Oxidation Reduction Potention	-208.44	mv
GS-AP-MW-6V	2/3/2021 13:22	pH	8.9	SU
GS-AP-MW-6V	2/3/2021 13:22	Temperature	16.8	C
GS-AP-MW-6V	2/3/2021 13:22	Turbidity	3.81	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-23H	2/3/2021 14:33	Conductivity	805.25	uS/cm
GS-AP-MW-23H	2/3/2021 14:33	DO	0.33	mg/L
GS-AP-MW-23H	2/3/2021 14:33	Depth to Water Detail	28.54	ft
GS-AP-MW-23H	2/3/2021 14:33	Oxidation Reduction Potention	-63.11	mv
GS-AP-MW-23H	2/3/2021 14:33	pH	6.22	SU
GS-AP-MW-23H	2/3/2021 14:33	Temperature	17.21	C
GS-AP-MW-23H	2/3/2021 14:33	Turbidity	1.87	NTU
GS-AP-MW-23H	2/3/2021 14:38	Conductivity	807.71	uS/cm
GS-AP-MW-23H	2/3/2021 14:38	DO	0.3	mg/L
GS-AP-MW-23H	2/3/2021 14:38	Depth to Water Detail	28.62	ft
GS-AP-MW-23H	2/3/2021 14:38	Oxidation Reduction Potention	-52.02	mv
GS-AP-MW-23H	2/3/2021 14:38	pH	6.21	SU
GS-AP-MW-23H	2/3/2021 14:38	Temperature	17.15	C
GS-AP-MW-23H	2/3/2021 14:38	Turbidity	1.32	NTU
GS-AP-MW-23H	2/3/2021 14:43	Conductivity	808.13	uS/cm
GS-AP-MW-23H	2/3/2021 14:43	DO	0.29	mg/L
GS-AP-MW-23H	2/3/2021 14:43	Depth to Water Detail	28.64	ft
GS-AP-MW-23H	2/3/2021 14:43	Oxidation Reduction Potention	-44.36	mv
GS-AP-MW-23H	2/3/2021 14:43	pH	6.22	SU
GS-AP-MW-23H	2/3/2021 14:43	Temperature	17.11	C
GS-AP-MW-23H	2/3/2021 14:43	Turbidity	0.93	NTU
GS-AP-MW-23H	2/3/2021 14:48	Conductivity	807.29	uS/cm
GS-AP-MW-23H	2/3/2021 14:48	DO	0.28	mg/L
GS-AP-MW-23H	2/3/2021 14:48	Depth to Water Detail	28.69	ft
GS-AP-MW-23H	2/3/2021 14:48	Oxidation Reduction Potention	-39.91	mv
GS-AP-MW-23H	2/3/2021 14:48	pH	6.22	SU
GS-AP-MW-23H	2/3/2021 14:48	Temperature	17.2	C
GS-AP-MW-23H	2/3/2021 14:48	Turbidity	0.6	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-8	2/2/2021 12:12	Conductivity	126.33	uS/cm
GS-AP-MW-8	2/2/2021 12:12	DO	2.45	mg/L
GS-AP-MW-8	2/2/2021 12:12	Depth to Water Detail	44.64	ft
GS-AP-MW-8	2/2/2021 12:12	Oxidation Reduction Potention	63.03	mv
GS-AP-MW-8	2/2/2021 12:12	pH	5.74	SU
GS-AP-MW-8	2/2/2021 12:12	Temperature	15.17	C
GS-AP-MW-8	2/2/2021 12:12	Turbidity	70.4	NTU
GS-AP-MW-8	2/2/2021 12:17	Conductivity	124.12	uS/cm
GS-AP-MW-8	2/2/2021 12:17	DO	2.18	mg/L
GS-AP-MW-8	2/2/2021 12:17	Depth to Water Detail	45	ft
GS-AP-MW-8	2/2/2021 12:17	Oxidation Reduction Potention	70.47	mv
GS-AP-MW-8	2/2/2021 12:17	pH	5.72	SU
GS-AP-MW-8	2/2/2021 12:17	Temperature	15.38	C
GS-AP-MW-8	2/2/2021 12:17	Turbidity	18.9	NTU
GS-AP-MW-8	2/2/2021 12:22	Conductivity	123.26	uS/cm
GS-AP-MW-8	2/2/2021 12:22	DO	2.24	mg/L
GS-AP-MW-8	2/2/2021 12:22	Depth to Water Detail	45.21	ft
GS-AP-MW-8	2/2/2021 12:22	Oxidation Reduction Potention	74.3	mv
GS-AP-MW-8	2/2/2021 12:22	pH	5.72	SU
GS-AP-MW-8	2/2/2021 12:22	Temperature	14.67	C
GS-AP-MW-8	2/2/2021 12:22	Turbidity	8.81	NTU
GS-AP-MW-8	2/2/2021 12:27	Conductivity	123.5	uS/cm
GS-AP-MW-8	2/2/2021 12:27	DO	2.24	mg/L
GS-AP-MW-8	2/2/2021 12:27	Depth to Water Detail	45.34	ft
GS-AP-MW-8	2/2/2021 12:27	Oxidation Reduction Potention	77.09	mv
GS-AP-MW-8	2/2/2021 12:27	pH	5.71	SU
GS-AP-MW-8	2/2/2021 12:27	Temperature	14.5	C
GS-AP-MW-8	2/2/2021 12:27	Turbidity	7.83	NTU
GS-AP-MW-8	2/2/2021 12:32	Conductivity	123.13	uS/cm
GS-AP-MW-8	2/2/2021 12:32	DO	2.2	mg/L
GS-AP-MW-8	2/2/2021 12:32	Depth to Water Detail	45.44	ft
GS-AP-MW-8	2/2/2021 12:32	Oxidation Reduction Potention	80.12	mv
GS-AP-MW-8	2/2/2021 12:32	pH	5.69	SU
GS-AP-MW-8	2/2/2021 12:32	Temperature	14.54	C
GS-AP-MW-8	2/2/2021 12:32	Turbidity	6.55	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-9V	2/2/2021 8:19	Conductivity	1270.46	uS/cm
GS-AP-MW-9V	2/2/2021 8:19	DO	0.39	mg/L
GS-AP-MW-9V	2/2/2021 8:19	Depth to Water Detail	55.32	ft
GS-AP-MW-9V	2/2/2021 8:19	Oxidation Reduction Potention	-97.47	mv
GS-AP-MW-9V	2/2/2021 8:19	pH	7.1	SU
GS-AP-MW-9V	2/2/2021 8:19	Temperature	15.03	C
GS-AP-MW-9V	2/2/2021 8:19	Turbidity	3.73	NTU
GS-AP-MW-9V	2/2/2021 8:24	Conductivity	1276.12	uS/cm
GS-AP-MW-9V	2/2/2021 8:24	DO	0.29	mg/L
GS-AP-MW-9V	2/2/2021 8:24	Depth to Water Detail	56.24	ft
GS-AP-MW-9V	2/2/2021 8:24	Oxidation Reduction Potention	-147.29	mv
GS-AP-MW-9V	2/2/2021 8:24	pH	7.13	SU
GS-AP-MW-9V	2/2/2021 8:24	Temperature	15.47	C
GS-AP-MW-9V	2/2/2021 8:24	Turbidity	1.14	NTU
GS-AP-MW-9V	2/2/2021 8:29	Conductivity	1256.54	uS/cm
GS-AP-MW-9V	2/2/2021 8:29	DO	0.26	mg/L
GS-AP-MW-9V	2/2/2021 8:29	Depth to Water Detail	56.89	ft
GS-AP-MW-9V	2/2/2021 8:29	Oxidation Reduction Potention	-167.25	mv
GS-AP-MW-9V	2/2/2021 8:29	pH	7.13	SU
GS-AP-MW-9V	2/2/2021 8:29	Temperature	15.1	C
GS-AP-MW-9V	2/2/2021 8:29	Turbidity	0.51	NTU
GS-AP-MW-9V	2/2/2021 8:34	Conductivity	1227.73	uS/cm
GS-AP-MW-9V	2/2/2021 8:34	DO	0.26	mg/L
GS-AP-MW-9V	2/2/2021 8:34	Depth to Water Detail	57.44	ft
GS-AP-MW-9V	2/2/2021 8:34	Oxidation Reduction Potention	-182.04	mv
GS-AP-MW-9V	2/2/2021 8:34	pH	7.16	SU
GS-AP-MW-9V	2/2/2021 8:34	Temperature	15.13	C
GS-AP-MW-9V	2/2/2021 8:34	Turbidity	0.58	NTU
GS-AP-MW-9V	2/2/2021 8:39	Conductivity	1179.15	uS/cm
GS-AP-MW-9V	2/2/2021 8:39	DO	0.26	mg/L
GS-AP-MW-9V	2/2/2021 8:39	Depth to Water Detail	57.93	ft
GS-AP-MW-9V	2/2/2021 8:39	Oxidation Reduction Potention	-190.61	mv
GS-AP-MW-9V	2/2/2021 8:39	pH	7.14	SU
GS-AP-MW-9V	2/2/2021 8:39	Temperature	15.48	C
GS-AP-MW-9V	2/2/2021 8:39	Turbidity	0.7	NTU
GS-AP-MW-9V	2/2/2021 8:44	Conductivity	1104	uS/cm
GS-AP-MW-9V	2/2/2021 8:44	DO	0.24	mg/L
GS-AP-MW-9V	2/2/2021 8:44	Depth to Water Detail	58.3	ft
GS-AP-MW-9V	2/2/2021 8:44	Oxidation Reduction Potention	-199.33	mv
GS-AP-MW-9V	2/2/2021 8:44	pH	7.14	SU
GS-AP-MW-9V	2/2/2021 8:44	Temperature	15.39	C
GS-AP-MW-9V	2/2/2021 8:44	Turbidity	0.37	NTU
GS-AP-MW-9V	2/2/2021 8:49	Conductivity	995.5	uS/cm
GS-AP-MW-9V	2/2/2021 8:49	DO	0.25	mg/L
GS-AP-MW-9V	2/2/2021 8:49	Depth to Water Detail	58.63	ft
GS-AP-MW-9V	2/2/2021 8:49	Oxidation Reduction Potention	-204.38	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-9V	2/2/2021 8:49	pH	7.11	SU
GS-AP-MW-9V	2/2/2021 8:49	Temperature	15.33	C
GS-AP-MW-9V	2/2/2021 8:49	Turbidity	0.44	NTU
GS-AP-MW-9V	2/2/2021 8:54	Conductivity	884.21	uS/cm
GS-AP-MW-9V	2/2/2021 8:54	DO	0.26	mg/L
GS-AP-MW-9V	2/2/2021 8:54	Depth to Water Detail	58.94	ft
GS-AP-MW-9V	2/2/2021 8:54	Oxidation Reduction Potention	-206.64	mv
GS-AP-MW-9V	2/2/2021 8:54	pH	7.07	SU
GS-AP-MW-9V	2/2/2021 8:54	Temperature	15.49	C
GS-AP-MW-9V	2/2/2021 8:54	Turbidity	0.56	NTU
GS-AP-MW-9V	2/2/2021 8:59	Conductivity	822.67	uS/cm
GS-AP-MW-9V	2/2/2021 8:59	DO	0.29	mg/L
GS-AP-MW-9V	2/2/2021 8:59	Depth to Water Detail	59.04	ft
GS-AP-MW-9V	2/2/2021 8:59	Oxidation Reduction Potention	-210.61	mv
GS-AP-MW-9V	2/2/2021 8:59	pH	7.06	SU
GS-AP-MW-9V	2/2/2021 8:59	Temperature	14.81	C
GS-AP-MW-9V	2/2/2021 8:59	Turbidity	0.8	NTU
GS-AP-MW-9V	2/2/2021 9:04	Conductivity	754.15	uS/cm
GS-AP-MW-9V	2/2/2021 9:04	DO	0.3	mg/L
GS-AP-MW-9V	2/2/2021 9:04	Depth to Water Detail	59.15	ft
GS-AP-MW-9V	2/2/2021 9:04	Oxidation Reduction Potention	-210.28	mv
GS-AP-MW-9V	2/2/2021 9:04	pH	7.03	SU
GS-AP-MW-9V	2/2/2021 9:04	Temperature	15.06	C
GS-AP-MW-9V	2/2/2021 9:04	Turbidity	0.24	NTU
GS-AP-MW-9V	2/2/2021 9:09	Conductivity	690.35	uS/cm
GS-AP-MW-9V	2/2/2021 9:09	DO	0.33	mg/L
GS-AP-MW-9V	2/2/2021 9:09	Depth to Water Detail	59.2	ft
GS-AP-MW-9V	2/2/2021 9:09	Oxidation Reduction Potention	-209.18	mv
GS-AP-MW-9V	2/2/2021 9:09	pH	7	SU
GS-AP-MW-9V	2/2/2021 9:09	Temperature	14.82	C
GS-AP-MW-9V	2/2/2021 9:09	Turbidity	0.33	NTU
GS-AP-MW-9V	2/2/2021 9:14	Conductivity	644.38	uS/cm
GS-AP-MW-9V	2/2/2021 9:14	DO	0.31	mg/L
GS-AP-MW-9V	2/2/2021 9:14	Depth to Water Detail	59.24	ft
GS-AP-MW-9V	2/2/2021 9:14	Oxidation Reduction Potention	-210.19	mv
GS-AP-MW-9V	2/2/2021 9:14	pH	7	SU
GS-AP-MW-9V	2/2/2021 9:14	Temperature	14.77	C
GS-AP-MW-9V	2/2/2021 9:14	Turbidity	0.48	NTU
GS-AP-MW-9V	2/2/2021 9:19	Conductivity	606.19	uS/cm
GS-AP-MW-9V	2/2/2021 9:19	DO	0.29	mg/L
GS-AP-MW-9V	2/2/2021 9:19	Depth to Water Detail	59.29	ft
GS-AP-MW-9V	2/2/2021 9:19	Oxidation Reduction Potention	-209.36	mv
GS-AP-MW-9V	2/2/2021 9:19	pH	6.97	SU
GS-AP-MW-9V	2/2/2021 9:19	Temperature	15.3	C
GS-AP-MW-9V	2/2/2021 9:19	Turbidity	0.5	NTU
GS-AP-MW-9V	2/2/2021 9:24	Conductivity	578.92	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-9V	2/2/2021 9:24	DO	0.34	mg/L
GS-AP-MW-9V	2/2/2021 9:24	Depth to Water Detail	59.34	ft
GS-AP-MW-9V	2/2/2021 9:24	Oxidation Reduction Potention	-206.07	mv
GS-AP-MW-9V	2/2/2021 9:24	pH	6.94	SU
GS-AP-MW-9V	2/2/2021 9:24	Temperature	14.96	C
GS-AP-MW-9V	2/2/2021 9:24	Turbidity	0.22	NTU
GS-AP-MW-9V	2/2/2021 9:29	Conductivity	561.31	uS/cm
GS-AP-MW-9V	2/2/2021 9:29	DO	0.31	mg/L
GS-AP-MW-9V	2/2/2021 9:29	Depth to Water Detail	59.39	ft
GS-AP-MW-9V	2/2/2021 9:29	Oxidation Reduction Potention	-207.89	mv
GS-AP-MW-9V	2/2/2021 9:29	pH	6.96	SU
GS-AP-MW-9V	2/2/2021 9:29	Temperature	14.95	C
GS-AP-MW-9V	2/2/2021 9:29	Turbidity	0.63	NTU
GS-AP-MW-9V	2/2/2021 9:34	Conductivity	542.63	uS/cm
GS-AP-MW-9V	2/2/2021 9:34	DO	0.31	mg/L
GS-AP-MW-9V	2/2/2021 9:34	Depth to Water Detail	59.42	ft
GS-AP-MW-9V	2/2/2021 9:34	Oxidation Reduction Potention	-205.5	mv
GS-AP-MW-9V	2/2/2021 9:34	pH	6.94	SU
GS-AP-MW-9V	2/2/2021 9:34	Temperature	15.05	C
GS-AP-MW-9V	2/2/2021 9:34	Turbidity	0.7	NTU
GS-AP-MW-9V	2/2/2021 9:39	Conductivity	531.14	uS/cm
GS-AP-MW-9V	2/2/2021 9:39	DO	0.32	mg/L
GS-AP-MW-9V	2/2/2021 9:39	Depth to Water Detail	59.42	ft
GS-AP-MW-9V	2/2/2021 9:39	Oxidation Reduction Potention	-203.43	mv
GS-AP-MW-9V	2/2/2021 9:39	pH	6.92	SU
GS-AP-MW-9V	2/2/2021 9:39	Temperature	14.98	C
GS-AP-MW-9V	2/2/2021 9:39	Turbidity	0.44	NTU
GS-AP-MW-9V	2/2/2021 9:44	Conductivity	517.69	uS/cm
GS-AP-MW-9V	2/2/2021 9:44	DO	0.3	mg/L
GS-AP-MW-9V	2/2/2021 9:44	Depth to Water Detail	59.42	ft
GS-AP-MW-9V	2/2/2021 9:44	Oxidation Reduction Potention	-203.61	mv
GS-AP-MW-9V	2/2/2021 9:44	pH	6.94	SU
GS-AP-MW-9V	2/2/2021 9:44	Temperature	15.03	C
GS-AP-MW-9V	2/2/2021 9:44	Turbidity	0.34	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12	2/1/2021 14:19	Conductivity	364.82	uS/cm
GS-AP-MW-12	2/1/2021 14:19	DO	0.22	mg/L
GS-AP-MW-12	2/1/2021 14:19	Depth to Water Detail	74.66	ft
GS-AP-MW-12	2/1/2021 14:19	Oxidation Reduction Potention	-119.86	mv
GS-AP-MW-12	2/1/2021 14:19	pH	7.37	SU
GS-AP-MW-12	2/1/2021 14:19	Temperature	16.15	C
GS-AP-MW-12	2/1/2021 14:19	Turbidity	0.84	NTU
GS-AP-MW-12	2/1/2021 14:24	Conductivity	364.35	uS/cm
GS-AP-MW-12	2/1/2021 14:24	DO	0.21	mg/L
GS-AP-MW-12	2/1/2021 14:24	Depth to Water Detail	76.96	ft
GS-AP-MW-12	2/1/2021 14:24	Oxidation Reduction Potention	-123.04	mv
GS-AP-MW-12	2/1/2021 14:24	pH	7.34	SU
GS-AP-MW-12	2/1/2021 14:24	Temperature	16.11	C
GS-AP-MW-12	2/1/2021 14:24	Turbidity	0.16	NTU
GS-AP-MW-12	2/1/2021 14:29	Conductivity	364.24	uS/cm
GS-AP-MW-12	2/1/2021 14:29	DO	0.19	mg/L
GS-AP-MW-12	2/1/2021 14:29	Depth to Water Detail	78.01	ft
GS-AP-MW-12	2/1/2021 14:29	Oxidation Reduction Potention	-126.97	mv
GS-AP-MW-12	2/1/2021 14:29	pH	7.37	SU
GS-AP-MW-12	2/1/2021 14:29	Temperature	16.17	C
GS-AP-MW-12	2/1/2021 14:29	Turbidity	0.13	NTU
GS-AP-MW-12	2/1/2021 14:34	Conductivity	362.06	uS/cm
GS-AP-MW-12	2/1/2021 14:34	DO	0.2	mg/L
GS-AP-MW-12	2/1/2021 14:34	Depth to Water Detail	79.38	ft
GS-AP-MW-12	2/1/2021 14:34	Oxidation Reduction Potention	-125.24	mv
GS-AP-MW-12	2/1/2021 14:34	pH	7.35	SU
GS-AP-MW-12	2/1/2021 14:34	Temperature	16.16	C
GS-AP-MW-12	2/1/2021 14:34	Turbidity	0.17	NTU
GS-AP-MW-12	2/1/2021 14:39	Conductivity	361.93	uS/cm
GS-AP-MW-12	2/1/2021 14:39	DO	0.2	mg/L
GS-AP-MW-12	2/1/2021 14:39	Depth to Water Detail	80.6	ft
GS-AP-MW-12	2/1/2021 14:39	Oxidation Reduction Potention	-128.11	mv
GS-AP-MW-12	2/1/2021 14:39	pH	7.4	SU
GS-AP-MW-12	2/1/2021 14:39	Temperature	16.16	C
GS-AP-MW-12	2/1/2021 14:39	Turbidity	0.07	NTU
GS-AP-MW-12	2/1/2021 14:44	Conductivity	348.88	uS/cm
GS-AP-MW-12	2/1/2021 14:44	DO	0.22	mg/L
GS-AP-MW-12	2/1/2021 14:44	Depth to Water Detail	81.35	ft
GS-AP-MW-12	2/1/2021 14:44	Oxidation Reduction Potention	-178.24	mv
GS-AP-MW-12	2/1/2021 14:44	pH	8.02	SU
GS-AP-MW-12	2/1/2021 14:44	Temperature	15.95	C
GS-AP-MW-12	2/1/2021 14:44	Turbidity	0.1	NTU
GS-AP-MW-12	2/1/2021 14:49	Conductivity	330.15	uS/cm
GS-AP-MW-12	2/1/2021 14:49	DO	0.2	mg/L
GS-AP-MW-12	2/1/2021 14:49	Depth to Water Detail	82.09	ft
GS-AP-MW-12	2/1/2021 14:49	Oxidation Reduction Potention	-221.46	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12	2/1/2021 14:49	pH	9.05	SU
GS-AP-MW-12	2/1/2021 14:49	Temperature	16	C
GS-AP-MW-12	2/1/2021 14:49	Turbidity	0.12	NTU
GS-AP-MW-12	2/1/2021 14:54	Conductivity	333.15	uS/cm
GS-AP-MW-12	2/1/2021 14:54	DO	0.2	mg/L
GS-AP-MW-12	2/1/2021 14:54	Depth to Water Detail	82.65	ft
GS-AP-MW-12	2/1/2021 14:54	Oxidation Reduction Potention	-209.19	mv
GS-AP-MW-12	2/1/2021 14:54	pH	8.94	SU
GS-AP-MW-12	2/1/2021 14:54	Temperature	15.78	C
GS-AP-MW-12	2/1/2021 14:54	Turbidity	0.08	NTU
GS-AP-MW-12	2/1/2021 14:59	Conductivity	334.04	uS/cm
GS-AP-MW-12	2/1/2021 14:59	DO	0.25	mg/L
GS-AP-MW-12	2/1/2021 14:59	Depth to Water Detail	83.26	ft
GS-AP-MW-12	2/1/2021 14:59	Oxidation Reduction Potention	-211.48	mv
GS-AP-MW-12	2/1/2021 14:59	pH	8.85	SU
GS-AP-MW-12	2/1/2021 14:59	Temperature	15.34	C
GS-AP-MW-12	2/1/2021 14:59	Turbidity	0.14	NTU
GS-AP-MW-12	2/1/2021 15:04	Conductivity	336.34	uS/cm
GS-AP-MW-12	2/1/2021 15:04	DO	0.29	mg/L
GS-AP-MW-12	2/1/2021 15:04	Depth to Water Detail	82.63	ft
GS-AP-MW-12	2/1/2021 15:04	Oxidation Reduction Potention	-195.66	mv
GS-AP-MW-12	2/1/2021 15:04	pH	8.79	SU
GS-AP-MW-12	2/1/2021 15:04	Temperature	14.77	C
GS-AP-MW-12	2/1/2021 15:04	Turbidity	0.08	NTU
GS-AP-MW-12	2/1/2021 15:09	Conductivity	339.13	uS/cm
GS-AP-MW-12	2/1/2021 15:09	DO	0.35	mg/L
GS-AP-MW-12	2/1/2021 15:09	Depth to Water Detail	82.3	ft
GS-AP-MW-12	2/1/2021 15:09	Oxidation Reduction Potention	-184.66	mv
GS-AP-MW-12	2/1/2021 15:09	pH	8.67	SU
GS-AP-MW-12	2/1/2021 15:09	Temperature	15.01	C
GS-AP-MW-12	2/1/2021 15:09	Turbidity	0.16	NTU
GS-AP-MW-12	2/1/2021 15:14	Conductivity	343.62	uS/cm
GS-AP-MW-12	2/1/2021 15:14	DO	0.37	mg/L
GS-AP-MW-12	2/1/2021 15:14	Depth to Water Detail	81.95	ft
GS-AP-MW-12	2/1/2021 15:14	Oxidation Reduction Potention	-184.57	mv
GS-AP-MW-12	2/1/2021 15:14	pH	8.43	SU
GS-AP-MW-12	2/1/2021 15:14	Temperature	15.03	C
GS-AP-MW-12	2/1/2021 15:14	Turbidity	0.1	NTU
GS-AP-MW-12	2/1/2021 15:19	Conductivity	350.32	uS/cm
GS-AP-MW-12	2/1/2021 15:19	DO	0.39	mg/L
GS-AP-MW-12	2/1/2021 15:19	Depth to Water Detail	81.72	ft
GS-AP-MW-12	2/1/2021 15:19	Oxidation Reduction Potention	-158	mv
GS-AP-MW-12	2/1/2021 15:19	pH	7.96	SU
GS-AP-MW-12	2/1/2021 15:19	Temperature	14.78	C
GS-AP-MW-12	2/1/2021 15:19	Turbidity	0.18	NTU
GS-AP-MW-12	2/1/2021 15:24	Conductivity	352.55	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12	2/1/2021 15:24	DO	0.38	mg/L
GS-AP-MW-12	2/1/2021 15:24	Depth to Water Detail	81.48	ft
GS-AP-MW-12	2/1/2021 15:24	Oxidation Reduction Potention	-136.64	mv
GS-AP-MW-12	2/1/2021 15:24	pH	7.72	SU
GS-AP-MW-12	2/1/2021 15:24	Temperature	14.89	C
GS-AP-MW-12	2/1/2021 15:24	Turbidity	0.09	NTU
GS-AP-MW-12	2/1/2021 15:29	Conductivity	354.37	uS/cm
GS-AP-MW-12	2/1/2021 15:29	DO	0.38	mg/L
GS-AP-MW-12	2/1/2021 15:29	Depth to Water Detail	81.48	ft
GS-AP-MW-12	2/1/2021 15:29	Oxidation Reduction Potention	-127.15	mv
GS-AP-MW-12	2/1/2021 15:29	pH	7.62	SU
GS-AP-MW-12	2/1/2021 15:29	Temperature	14.77	C
GS-AP-MW-12	2/1/2021 15:29	Turbidity	0.12	NTU
GS-AP-MW-12	2/1/2021 15:34	Conductivity	355.4	uS/cm
GS-AP-MW-12	2/1/2021 15:34	DO	0.38	mg/L
GS-AP-MW-12	2/1/2021 15:34	Depth to Water Detail	81.13	ft
GS-AP-MW-12	2/1/2021 15:34	Oxidation Reduction Potention	-121.55	mv
GS-AP-MW-12	2/1/2021 15:34	pH	7.55	SU
GS-AP-MW-12	2/1/2021 15:34	Temperature	14.88	C
GS-AP-MW-12	2/1/2021 15:34	Turbidity	0.11	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	2/1/2021 10:47	Conductivity	324.67	uS/cm
GS-AP-MW-12V	2/1/2021 10:47	DO	0.63	mg/L
GS-AP-MW-12V	2/1/2021 10:47	Depth to Water Detail	91.08	ft
GS-AP-MW-12V	2/1/2021 10:47	Oxidation Reduction Potention	-82.97	mv
GS-AP-MW-12V	2/1/2021 10:47	pH	7.68	SU
GS-AP-MW-12V	2/1/2021 10:47	Temperature	14.78	C
GS-AP-MW-12V	2/1/2021 10:47	Turbidity	68	NTU
GS-AP-MW-12V	2/1/2021 10:52	Conductivity	328.62	uS/cm
GS-AP-MW-12V	2/1/2021 10:52	DO	0.36	mg/L
GS-AP-MW-12V	2/1/2021 10:52	Depth to Water Detail	91.92	ft
GS-AP-MW-12V	2/1/2021 10:52	Oxidation Reduction Potention	-127.88	mv
GS-AP-MW-12V	2/1/2021 10:52	pH	7.71	SU
GS-AP-MW-12V	2/1/2021 10:52	Temperature	14.98	C
GS-AP-MW-12V	2/1/2021 10:52	Turbidity	83	NTU
GS-AP-MW-12V	2/1/2021 10:57	Conductivity	330	uS/cm
GS-AP-MW-12V	2/1/2021 10:57	DO	0.31	mg/L
GS-AP-MW-12V	2/1/2021 10:57	Depth to Water Detail	92.69	ft
GS-AP-MW-12V	2/1/2021 10:57	Oxidation Reduction Potention	-140.55	mv
GS-AP-MW-12V	2/1/2021 10:57	pH	7.73	SU
GS-AP-MW-12V	2/1/2021 10:57	Temperature	14.98	C
GS-AP-MW-12V	2/1/2021 10:57	Turbidity	93.1	NTU
GS-AP-MW-12V	2/1/2021 11:02	Conductivity	334.33	uS/cm
GS-AP-MW-12V	2/1/2021 11:02	DO	0.31	mg/L
GS-AP-MW-12V	2/1/2021 11:02	Depth to Water Detail	93.22	ft
GS-AP-MW-12V	2/1/2021 11:02	Oxidation Reduction Potention	-137.27	mv
GS-AP-MW-12V	2/1/2021 11:02	pH	7.71	SU
GS-AP-MW-12V	2/1/2021 11:02	Temperature	15.12	C
GS-AP-MW-12V	2/1/2021 11:02	Turbidity	93.4	NTU
GS-AP-MW-12V	2/1/2021 11:07	Conductivity	332.32	uS/cm
GS-AP-MW-12V	2/1/2021 11:07	DO	0.32	mg/L
GS-AP-MW-12V	2/1/2021 11:07	Depth to Water Detail	93.78	ft
GS-AP-MW-12V	2/1/2021 11:07	Oxidation Reduction Potention	-138.31	mv
GS-AP-MW-12V	2/1/2021 11:07	pH	7.69	SU
GS-AP-MW-12V	2/1/2021 11:07	Temperature	14.79	C
GS-AP-MW-12V	2/1/2021 11:07	Turbidity	84.5	NTU
GS-AP-MW-12V	2/1/2021 11:12	Conductivity	332.48	uS/cm
GS-AP-MW-12V	2/1/2021 11:12	DO	0.32	mg/L
GS-AP-MW-12V	2/1/2021 11:12	Depth to Water Detail	94.3	ft
GS-AP-MW-12V	2/1/2021 11:12	Oxidation Reduction Potention	-139.52	mv
GS-AP-MW-12V	2/1/2021 11:12	pH	7.66	SU
GS-AP-MW-12V	2/1/2021 11:12	Temperature	14.65	C
GS-AP-MW-12V	2/1/2021 11:12	Turbidity	88.4	NTU
GS-AP-MW-12V	2/1/2021 11:17	Conductivity	338.97	uS/cm
GS-AP-MW-12V	2/1/2021 11:17	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 11:17	Depth to Water Detail	94.72	ft
GS-AP-MW-12V	2/1/2021 11:17	Oxidation Reduction Potention	-138.18	mv

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	2/1/2021 11:17	pH	7.62	SU
GS-AP-MW-12V	2/1/2021 11:17	Temperature	14.66	C
GS-AP-MW-12V	2/1/2021 11:17	Turbidity	93.3	NTU
GS-AP-MW-12V	2/1/2021 11:22	Conductivity	338.52	uS/cm
GS-AP-MW-12V	2/1/2021 11:22	DO	0.32	mg/L
GS-AP-MW-12V	2/1/2021 11:22	Depth to Water Detail	95.12	ft
GS-AP-MW-12V	2/1/2021 11:22	Oxidation Reduction Potention	-139.43	mv
GS-AP-MW-12V	2/1/2021 11:22	pH	7.61	SU
GS-AP-MW-12V	2/1/2021 11:22	Temperature	14.53	C
GS-AP-MW-12V	2/1/2021 11:22	Turbidity	72.6	NTU
GS-AP-MW-12V	2/1/2021 11:27	Conductivity	343.89	uS/cm
GS-AP-MW-12V	2/1/2021 11:27	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 11:27	Depth to Water Detail	95.46	ft
GS-AP-MW-12V	2/1/2021 11:27	Oxidation Reduction Potention	-139.15	mv
GS-AP-MW-12V	2/1/2021 11:27	pH	7.57	SU
GS-AP-MW-12V	2/1/2021 11:27	Temperature	14.66	C
GS-AP-MW-12V	2/1/2021 11:27	Turbidity	79.5	NTU
GS-AP-MW-12V	2/1/2021 11:32	Conductivity	350.37	uS/cm
GS-AP-MW-12V	2/1/2021 11:32	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 11:32	Depth to Water Detail	95.79	ft
GS-AP-MW-12V	2/1/2021 11:32	Oxidation Reduction Potention	-137.41	mv
GS-AP-MW-12V	2/1/2021 11:32	pH	7.52	SU
GS-AP-MW-12V	2/1/2021 11:32	Temperature	14.62	C
GS-AP-MW-12V	2/1/2021 11:32	Turbidity	69.5	NTU
GS-AP-MW-12V	2/1/2021 11:37	Conductivity	352.52	uS/cm
GS-AP-MW-12V	2/1/2021 11:37	DO	0.32	mg/L
GS-AP-MW-12V	2/1/2021 11:37	Depth to Water Detail	96.08	ft
GS-AP-MW-12V	2/1/2021 11:37	Oxidation Reduction Potention	-134.68	mv
GS-AP-MW-12V	2/1/2021 11:37	pH	7.49	SU
GS-AP-MW-12V	2/1/2021 11:37	Temperature	14.53	C
GS-AP-MW-12V	2/1/2021 11:37	Turbidity	69.5	NTU
GS-AP-MW-12V	2/1/2021 11:42	Conductivity	353.58	uS/cm
GS-AP-MW-12V	2/1/2021 11:42	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 11:42	Depth to Water Detail	96.34	ft
GS-AP-MW-12V	2/1/2021 11:42	Oxidation Reduction Potention	-133.38	mv
GS-AP-MW-12V	2/1/2021 11:42	pH	7.45	SU
GS-AP-MW-12V	2/1/2021 11:42	Temperature	14.93	C
GS-AP-MW-12V	2/1/2021 11:42	Turbidity	73.4	NTU
GS-AP-MW-12V	2/1/2021 11:47	Conductivity	355.62	uS/cm
GS-AP-MW-12V	2/1/2021 11:47	DO	0.35	mg/L
GS-AP-MW-12V	2/1/2021 11:47	Depth to Water Detail	96.6	ft
GS-AP-MW-12V	2/1/2021 11:47	Oxidation Reduction Potention	-129.27	mv
GS-AP-MW-12V	2/1/2021 11:47	pH	7.43	SU
GS-AP-MW-12V	2/1/2021 11:47	Temperature	14.71	C
GS-AP-MW-12V	2/1/2021 11:47	Turbidity	72.8	NTU
GS-AP-MW-12V	2/1/2021 11:52	Conductivity	359.49	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	2/1/2021 11:52	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 11:52	Depth to Water Detail	96.82	ft
GS-AP-MW-12V	2/1/2021 11:52	Oxidation Reduction Potention	-127.06	mv
GS-AP-MW-12V	2/1/2021 11:52	pH	7.41	SU
GS-AP-MW-12V	2/1/2021 11:52	Temperature	14.82	C
GS-AP-MW-12V	2/1/2021 11:52	Turbidity	75.4	NTU
GS-AP-MW-12V	2/1/2021 11:57	Conductivity	362.46	uS/cm
GS-AP-MW-12V	2/1/2021 11:57	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 11:57	Depth to Water Detail	96.96	ft
GS-AP-MW-12V	2/1/2021 11:57	Oxidation Reduction Potention	-125.36	mv
GS-AP-MW-12V	2/1/2021 11:57	pH	7.39	SU
GS-AP-MW-12V	2/1/2021 11:57	Temperature	14.94	C
GS-AP-MW-12V	2/1/2021 11:57	Turbidity	65.3	NTU
GS-AP-MW-12V	2/1/2021 12:02	Conductivity	359.85	uS/cm
GS-AP-MW-12V	2/1/2021 12:02	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 12:02	Depth to Water Detail	97.02	ft
GS-AP-MW-12V	2/1/2021 12:02	Oxidation Reduction Potention	-122.86	mv
GS-AP-MW-12V	2/1/2021 12:02	pH	7.36	SU
GS-AP-MW-12V	2/1/2021 12:02	Temperature	15.03	C
GS-AP-MW-12V	2/1/2021 12:02	Turbidity	68.6	NTU
GS-AP-MW-12V	2/1/2021 12:07	Conductivity	361.76	uS/cm
GS-AP-MW-12V	2/1/2021 12:07	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 12:07	Depth to Water Detail	97.36	ft
GS-AP-MW-12V	2/1/2021 12:07	Oxidation Reduction Potention	-120.96	mv
GS-AP-MW-12V	2/1/2021 12:07	pH	7.37	SU
GS-AP-MW-12V	2/1/2021 12:07	Temperature	14.96	C
GS-AP-MW-12V	2/1/2021 12:07	Turbidity	67.6	NTU
GS-AP-MW-12V	2/1/2021 12:12	Conductivity	364.99	uS/cm
GS-AP-MW-12V	2/1/2021 12:12	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 12:12	Depth to Water Detail	97.53	ft
GS-AP-MW-12V	2/1/2021 12:12	Oxidation Reduction Potention	-119.15	mv
GS-AP-MW-12V	2/1/2021 12:12	pH	7.34	SU
GS-AP-MW-12V	2/1/2021 12:12	Temperature	15.19	C
GS-AP-MW-12V	2/1/2021 12:12	Turbidity	63.4	NTU
GS-AP-MW-12V	2/1/2021 12:17	Conductivity	366.27	uS/cm
GS-AP-MW-12V	2/1/2021 12:17	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 12:17	Depth to Water Detail	97.65	ft
GS-AP-MW-12V	2/1/2021 12:17	Oxidation Reduction Potention	-115.64	mv
GS-AP-MW-12V	2/1/2021 12:17	pH	7.33	SU
GS-AP-MW-12V	2/1/2021 12:17	Temperature	14.67	C
GS-AP-MW-12V	2/1/2021 12:17	Turbidity	67.3	NTU
GS-AP-MW-12V	2/1/2021 12:22	Conductivity	369.95	uS/cm
GS-AP-MW-12V	2/1/2021 12:22	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 12:22	Depth to Water Detail	97.75	ft
GS-AP-MW-12V	2/1/2021 12:22	Oxidation Reduction Potention	-116.05	mv
GS-AP-MW-12V	2/1/2021 12:22	pH	7.33	SU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	2/1/2021 12:22	Temperature	14.83	C
GS-AP-MW-12V	2/1/2021 12:22	Turbidity	54.4	NTU
GS-AP-MW-12V	2/1/2021 12:27	Conductivity	374.01	uS/cm
GS-AP-MW-12V	2/1/2021 12:27	DO	0.35	mg/L
GS-AP-MW-12V	2/1/2021 12:27	Depth to Water Detail	97.86	ft
GS-AP-MW-12V	2/1/2021 12:27	Oxidation Reduction Potention	-113.51	mv
GS-AP-MW-12V	2/1/2021 12:27	pH	7.31	SU
GS-AP-MW-12V	2/1/2021 12:27	Temperature	15.26	C
GS-AP-MW-12V	2/1/2021 12:27	Turbidity	58.2	NTU
GS-AP-MW-12V	2/1/2021 12:32	Conductivity	378.27	uS/cm
GS-AP-MW-12V	2/1/2021 12:32	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 12:32	Depth to Water Detail	97.95	ft
GS-AP-MW-12V	2/1/2021 12:32	Oxidation Reduction Potention	-112.27	mv
GS-AP-MW-12V	2/1/2021 12:32	pH	7.31	SU
GS-AP-MW-12V	2/1/2021 12:32	Temperature	14.93	C
GS-AP-MW-12V	2/1/2021 12:32	Turbidity	51.4	NTU
GS-AP-MW-12V	2/1/2021 12:37	Conductivity	379.54	uS/cm
GS-AP-MW-12V	2/1/2021 12:37	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 12:37	Depth to Water Detail	98.08	ft
GS-AP-MW-12V	2/1/2021 12:37	Oxidation Reduction Potention	-111.17	mv
GS-AP-MW-12V	2/1/2021 12:37	pH	7.3	SU
GS-AP-MW-12V	2/1/2021 12:37	Temperature	15.12	C
GS-AP-MW-12V	2/1/2021 12:37	Turbidity	52.6	NTU
GS-AP-MW-12V	2/1/2021 12:42	Conductivity	380.95	uS/cm
GS-AP-MW-12V	2/1/2021 12:42	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 12:42	Depth to Water Detail	98.16	ft
GS-AP-MW-12V	2/1/2021 12:42	Oxidation Reduction Potention	-109.36	mv
GS-AP-MW-12V	2/1/2021 12:42	pH	7.29	SU
GS-AP-MW-12V	2/1/2021 12:42	Temperature	15.03	C
GS-AP-MW-12V	2/1/2021 12:42	Turbidity	58.7	NTU
GS-AP-MW-12V	2/1/2021 12:47	Conductivity	380.7	uS/cm
GS-AP-MW-12V	2/1/2021 12:47	DO	0.34	mg/L
GS-AP-MW-12V	2/1/2021 12:47	Depth to Water Detail	98.23	ft
GS-AP-MW-12V	2/1/2021 12:47	Oxidation Reduction Potention	-110.21	mv
GS-AP-MW-12V	2/1/2021 12:47	pH	7.3	SU
GS-AP-MW-12V	2/1/2021 12:47	Temperature	15.01	C
GS-AP-MW-12V	2/1/2021 12:47	Turbidity	58.5	NTU
GS-AP-MW-12V	2/1/2021 12:52	Conductivity	381.65	uS/cm
GS-AP-MW-12V	2/1/2021 12:52	DO	0.33	mg/L
GS-AP-MW-12V	2/1/2021 12:52	Depth to Water Detail	98.3	ft
GS-AP-MW-12V	2/1/2021 12:52	Oxidation Reduction Potention	-109.36	mv
GS-AP-MW-12V	2/1/2021 12:52	pH	7.3	SU
GS-AP-MW-12V	2/1/2021 12:52	Temperature	15.01	C
GS-AP-MW-12V	2/1/2021 12:52	Turbidity	54.5	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-18V	2/3/2021 11:49	Conductivity	497.97	uS/cm
GS-AP-MW-18V	2/3/2021 11:49	DO	0.67	mg/L
GS-AP-MW-18V	2/3/2021 11:49	Depth to Water Detail	119.31	ft
GS-AP-MW-18V	2/3/2021 11:49	Oxidation Reduction Potention	-176.97	mv
GS-AP-MW-18V	2/3/2021 11:49	pH	8.4	SU
GS-AP-MW-18V	2/3/2021 11:49	Temperature	13.48	C
GS-AP-MW-18V	2/3/2021 11:49	Turbidity	0.65	NTU
GS-AP-MW-18V	2/3/2021 11:58	Conductivity	500.41	uS/cm
GS-AP-MW-18V	2/3/2021 11:58	DO	0.62	mg/L
GS-AP-MW-18V	2/3/2021 11:58	Depth to Water Detail	120.51	ft
GS-AP-MW-18V	2/3/2021 11:58	Oxidation Reduction Potention	-167.76	mv
GS-AP-MW-18V	2/3/2021 11:58	pH	8.42	SU
GS-AP-MW-18V	2/3/2021 11:58	Temperature	13.7	C
GS-AP-MW-18V	2/3/2021 11:58	Turbidity	0.68	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-24H	2/2/2021 13:58	Conductivity	409.94	uS/cm
GS-AP-MW-24H	2/2/2021 13:58	DO	0.2	mg/L
GS-AP-MW-24H	2/2/2021 13:58	Depth to Water Detail	6.61	ft
GS-AP-MW-24H	2/2/2021 13:58	Oxidation Reduction Potention	-99.08	mv
GS-AP-MW-24H	2/2/2021 13:58	pH	6.91	SU
GS-AP-MW-24H	2/2/2021 13:58	Temperature	16.98	C
GS-AP-MW-24H	2/2/2021 13:58	Turbidity	2.32	NTU
GS-AP-MW-24H	2/2/2021 14:03	Conductivity	412.16	uS/cm
GS-AP-MW-24H	2/2/2021 14:03	DO	0.17	mg/L
GS-AP-MW-24H	2/2/2021 14:03	Depth to Water Detail	6.61	ft
GS-AP-MW-24H	2/2/2021 14:03	Oxidation Reduction Potention	-97.63	mv
GS-AP-MW-24H	2/2/2021 14:03	pH	6.93	SU
GS-AP-MW-24H	2/2/2021 14:03	Temperature	17.13	C
GS-AP-MW-24H	2/2/2021 14:03	Turbidity	1.66	NTU
GS-AP-MW-24H	2/2/2021 14:08	Conductivity	413.67	uS/cm
GS-AP-MW-24H	2/2/2021 14:08	DO	0.16	mg/L
GS-AP-MW-24H	2/2/2021 14:08	Depth to Water Detail	6.61	ft
GS-AP-MW-24H	2/2/2021 14:08	Oxidation Reduction Potention	-95.12	mv
GS-AP-MW-24H	2/2/2021 14:08	pH	6.93	SU
GS-AP-MW-24H	2/2/2021 14:08	Temperature	17.19	C
GS-AP-MW-24H	2/2/2021 14:08	Turbidity	1.72	NTU
GS-AP-MW-24H	2/2/2021 14:13	Conductivity	414.69	uS/cm
GS-AP-MW-24H	2/2/2021 14:13	DO	0.15	mg/L
GS-AP-MW-24H	2/2/2021 14:13	Depth to Water Detail	6.61	ft
GS-AP-MW-24H	2/2/2021 14:13	Oxidation Reduction Potention	-92.45	mv
GS-AP-MW-24H	2/2/2021 14:13	pH	6.93	SU
GS-AP-MW-24H	2/2/2021 14:13	Temperature	17.17	C
GS-AP-MW-24H	2/2/2021 14:13	Turbidity	1.49	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-29H	2/3/2021 10:18	Conductivity	812.42	uS/cm
GS-AP-MW-29H	2/3/2021 10:18	DO	0.6	mg/L
GS-AP-MW-29H	2/3/2021 10:18	Depth to Water Detail	82.2	ft
GS-AP-MW-29H	2/3/2021 10:18	Oxidation Reduction Potention	-103.15	mv
GS-AP-MW-29H	2/3/2021 10:18	pH	7.57	SU
GS-AP-MW-29H	2/3/2021 10:18	Temperature	16.14	C
GS-AP-MW-29H	2/3/2021 10:18	Turbidity	3.06	NTU
GS-AP-MW-29H	2/3/2021 10:23	Conductivity	810.96	uS/cm
GS-AP-MW-29H	2/3/2021 10:23	DO	0.39	mg/L
GS-AP-MW-29H	2/3/2021 10:23	Depth to Water Detail	82.83	ft
GS-AP-MW-29H	2/3/2021 10:23	Oxidation Reduction Potention	-107.08	mv
GS-AP-MW-29H	2/3/2021 10:23	pH	7.59	SU
GS-AP-MW-29H	2/3/2021 10:23	Temperature	16.27	C
GS-AP-MW-29H	2/3/2021 10:23	Turbidity	1.18	NTU
GS-AP-MW-29H	2/3/2021 10:28	Conductivity	790.01	uS/cm
GS-AP-MW-29H	2/3/2021 10:28	DO	0.36	mg/L
GS-AP-MW-29H	2/3/2021 10:28	Depth to Water Detail	83.2	ft
GS-AP-MW-29H	2/3/2021 10:28	Oxidation Reduction Potention	-112.86	mv
GS-AP-MW-29H	2/3/2021 10:28	pH	7.58	SU
GS-AP-MW-29H	2/3/2021 10:28	Temperature	16.36	C
GS-AP-MW-29H	2/3/2021 10:28	Turbidity	1.44	NTU
GS-AP-MW-29H	2/3/2021 10:33	Conductivity	775.81	uS/cm
GS-AP-MW-29H	2/3/2021 10:33	DO	0.36	mg/L
GS-AP-MW-29H	2/3/2021 10:33	Depth to Water Detail	83.46	ft
GS-AP-MW-29H	2/3/2021 10:33	Oxidation Reduction Potention	-118.87	mv
GS-AP-MW-29H	2/3/2021 10:33	pH	7.6	SU
GS-AP-MW-29H	2/3/2021 10:33	Temperature	16.57	C
GS-AP-MW-29H	2/3/2021 10:33	Turbidity	1.75	NTU
GS-AP-MW-29H	2/3/2021 10:38	Conductivity	766.36	uS/cm
GS-AP-MW-29H	2/3/2021 10:38	DO	0.35	mg/L
GS-AP-MW-29H	2/3/2021 10:38	Depth to Water Detail	83.55	ft
GS-AP-MW-29H	2/3/2021 10:38	Oxidation Reduction Potention	-123.27	mv
GS-AP-MW-29H	2/3/2021 10:38	pH	7.62	SU
GS-AP-MW-29H	2/3/2021 10:38	Temperature	16.65	C
GS-AP-MW-29H	2/3/2021 10:38	Turbidity	0.62	NTU
GS-AP-MW-29H	2/3/2021 10:43	Conductivity	760.59	uS/cm
GS-AP-MW-29H	2/3/2021 10:43	DO	0.34	mg/L
GS-AP-MW-29H	2/3/2021 10:43	Depth to Water Detail	83.63	ft
GS-AP-MW-29H	2/3/2021 10:43	Oxidation Reduction Potention	-125.96	mv
GS-AP-MW-29H	2/3/2021 10:43	pH	7.63	SU
GS-AP-MW-29H	2/3/2021 10:43	Temperature	16.53	C
GS-AP-MW-29H	2/3/2021 10:43	Turbidity	0.73	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-40H	2/2/2021 10:37	Conductivity	1851.66	uS/cm
GS-AP-MW-40H	2/2/2021 10:37	DO	0.7	mg/L
GS-AP-MW-40H	2/2/2021 10:37	Depth to Water Detail	81.03	ft
GS-AP-MW-40H	2/2/2021 10:37	Oxidation Reduction Potention	-59	mv
GS-AP-MW-40H	2/2/2021 10:37	pH	6.62	SU
GS-AP-MW-40H	2/2/2021 10:37	Temperature	15.81	C
GS-AP-MW-40H	2/2/2021 10:37	Turbidity	89.7	NTU
GS-AP-MW-40H	2/2/2021 10:42	Conductivity	1849.93	uS/cm
GS-AP-MW-40H	2/2/2021 10:42	DO	0.51	mg/L
GS-AP-MW-40H	2/2/2021 10:42	Depth to Water Detail	81.66	ft
GS-AP-MW-40H	2/2/2021 10:42	Oxidation Reduction Potention	-61.68	mv
GS-AP-MW-40H	2/2/2021 10:42	pH	6.62	SU
GS-AP-MW-40H	2/2/2021 10:42	Temperature	15.78	C
GS-AP-MW-40H	2/2/2021 10:42	Turbidity	29.3	NTU
GS-AP-MW-40H	2/2/2021 10:47	Conductivity	1835.89	uS/cm
GS-AP-MW-40H	2/2/2021 10:47	DO	0.45	mg/L
GS-AP-MW-40H	2/2/2021 10:47	Depth to Water Detail	81.98	ft
GS-AP-MW-40H	2/2/2021 10:47	Oxidation Reduction Potention	-73.18	mv
GS-AP-MW-40H	2/2/2021 10:47	pH	6.62	SU
GS-AP-MW-40H	2/2/2021 10:47	Temperature	15.79	C
GS-AP-MW-40H	2/2/2021 10:47	Turbidity	11.7	NTU
GS-AP-MW-40H	2/2/2021 10:52	Conductivity	1802.6	uS/cm
GS-AP-MW-40H	2/2/2021 10:52	DO	0.41	mg/L
GS-AP-MW-40H	2/2/2021 10:52	Depth to Water Detail	82.22	ft
GS-AP-MW-40H	2/2/2021 10:52	Oxidation Reduction Potention	-80.74	mv
GS-AP-MW-40H	2/2/2021 10:52	pH	6.6	SU
GS-AP-MW-40H	2/2/2021 10:52	Temperature	15.8	C
GS-AP-MW-40H	2/2/2021 10:52	Turbidity	6.63	NTU
GS-AP-MW-40H	2/2/2021 10:57	Conductivity	1784.58	uS/cm
GS-AP-MW-40H	2/2/2021 10:57	DO	0.4	mg/L
GS-AP-MW-40H	2/2/2021 10:57	Depth to Water Detail	82.63	ft
GS-AP-MW-40H	2/2/2021 10:57	Oxidation Reduction Potention	-85.31	mv
GS-AP-MW-40H	2/2/2021 10:57	pH	6.58	SU
GS-AP-MW-40H	2/2/2021 10:57	Temperature	15.77	C
GS-AP-MW-40H	2/2/2021 10:57	Turbidity	4.58	NTU
GS-AP-MW-40H	2/2/2021 11:02	Conductivity	1765.18	uS/cm
GS-AP-MW-40H	2/2/2021 11:02	DO	0.39	mg/L
GS-AP-MW-40H	2/2/2021 11:02	Depth to Water Detail	82.74	ft
GS-AP-MW-40H	2/2/2021 11:02	Oxidation Reduction Potention	-87.51	mv
GS-AP-MW-40H	2/2/2021 11:02	pH	6.57	SU
GS-AP-MW-40H	2/2/2021 11:02	Temperature	15.96	C
GS-AP-MW-40H	2/2/2021 11:02	Turbidity	5.18	NTU
GS-AP-MW-40H	2/2/2021 11:07	Conductivity	1746.98	uS/cm
GS-AP-MW-40H	2/2/2021 11:07	DO	0.37	mg/L
GS-AP-MW-40H	2/2/2021 11:07	Depth to Water Detail	82.89	ft
GS-AP-MW-40H	2/2/2021 11:07	Oxidation Reduction Potention	-87.68	mv

**Alabama Power Company
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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-40H	2/2/2021 11:07	pH	6.55	SU
GS-AP-MW-40H	2/2/2021 11:07	Temperature	16.17	C
GS-AP-MW-40H	2/2/2021 11:07	Turbidity	4.53	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-42H	2/3/2021 8:43	Conductivity	1033.55	uS/cm
GS-AP-MW-42H	2/3/2021 8:43	DO	0.22	mg/L
GS-AP-MW-42H	2/3/2021 8:43	Depth to Water Detail	52.94	ft
GS-AP-MW-42H	2/3/2021 8:43	Oxidation Reduction Potention	-36.76	mv
GS-AP-MW-42H	2/3/2021 8:43	pH	6.37	SU
GS-AP-MW-42H	2/3/2021 8:43	Temperature	16.62	C
GS-AP-MW-42H	2/3/2021 8:43	Turbidity	62	NTU
GS-AP-MW-42H	2/3/2021 8:48	Conductivity	1033.36	uS/cm
GS-AP-MW-42H	2/3/2021 8:48	DO	0.17	mg/L
GS-AP-MW-42H	2/3/2021 8:48	Depth to Water Detail	52.96	ft
GS-AP-MW-42H	2/3/2021 8:48	Oxidation Reduction Potention	-39.9	mv
GS-AP-MW-42H	2/3/2021 8:48	pH	6.42	SU
GS-AP-MW-42H	2/3/2021 8:48	Temperature	16.66	C
GS-AP-MW-42H	2/3/2021 8:48	Turbidity	32.6	NTU
GS-AP-MW-42H	2/3/2021 8:53	Conductivity	1031.9	uS/cm
GS-AP-MW-42H	2/3/2021 8:53	DO	0.16	mg/L
GS-AP-MW-42H	2/3/2021 8:53	Depth to Water Detail	52.96	ft
GS-AP-MW-42H	2/3/2021 8:53	Oxidation Reduction Potention	-39.52	mv
GS-AP-MW-42H	2/3/2021 8:53	pH	6.44	SU
GS-AP-MW-42H	2/3/2021 8:53	Temperature	16.59	C
GS-AP-MW-42H	2/3/2021 8:53	Turbidity	28	NTU
GS-AP-MW-42H	2/3/2021 8:58	Conductivity	1032.4	uS/cm
GS-AP-MW-42H	2/3/2021 8:58	DO	0.16	mg/L
GS-AP-MW-42H	2/3/2021 8:58	Depth to Water Detail	52.96	ft
GS-AP-MW-42H	2/3/2021 8:58	Oxidation Reduction Potention	-38.06	mv
GS-AP-MW-42H	2/3/2021 8:58	pH	6.45	SU
GS-AP-MW-42H	2/3/2021 8:58	Temperature	16.56	C
GS-AP-MW-42H	2/3/2021 8:58	Turbidity	22.3	NTU
GS-AP-MW-42H	2/3/2021 9:03	Conductivity	1045.54	uS/cm
GS-AP-MW-42H	2/3/2021 9:03	DO	0.15	mg/L
GS-AP-MW-42H	2/3/2021 9:03	Depth to Water Detail	52.96	ft
GS-AP-MW-42H	2/3/2021 9:03	Oxidation Reduction Potention	-35.87	mv
GS-AP-MW-42H	2/3/2021 9:03	pH	6.45	SU
GS-AP-MW-42H	2/3/2021 9:03	Temperature	16.67	C
GS-AP-MW-42H	2/3/2021 9:03	Turbidity	17	NTU
GS-AP-MW-42H	2/3/2021 9:08	Conductivity	1043.96	uS/cm
GS-AP-MW-42H	2/3/2021 9:08	DO	0.15	mg/L
GS-AP-MW-42H	2/3/2021 9:08	Depth to Water Detail	52.96	ft
GS-AP-MW-42H	2/3/2021 9:08	Oxidation Reduction Potention	-34.29	mv
GS-AP-MW-42H	2/3/2021 9:08	pH	6.46	SU
GS-AP-MW-42H	2/3/2021 9:08	Temperature	16.57	C
GS-AP-MW-42H	2/3/2021 9:08	Turbidity	10.19	NTU
GS-AP-MW-42H	2/3/2021 9:13	Conductivity	1041.24	uS/cm
GS-AP-MW-42H	2/3/2021 9:13	DO	0.15	mg/L
GS-AP-MW-42H	2/3/2021 9:13	Depth to Water Detail	52.96	ft
GS-AP-MW-42H	2/3/2021 9:13	Oxidation Reduction Potention	-33.74	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-42H	2/3/2021 9:13	pH	6.47	SU
GS-AP-MW-42H	2/3/2021 9:13	Temperature	16.59	C
GS-AP-MW-42H	2/3/2021 9:13	Turbidity	7.38	NTU
GS-AP-MW-42H	2/3/2021 9:18	Conductivity	1041.69	uS/cm
GS-AP-MW-42H	2/3/2021 9:18	DO	0.14	mg/L
GS-AP-MW-42H	2/3/2021 9:18	Depth to Water Detail	52.96	ft
GS-AP-MW-42H	2/3/2021 9:18	Oxidation Reduction Potention	-31.55	mv
GS-AP-MW-42H	2/3/2021 9:18	pH	6.47	SU
GS-AP-MW-42H	2/3/2021 9:18	Temperature	16.63	C
GS-AP-MW-42H	2/3/2021 9:18	Turbidity	4.71	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17	2/2/2021 14:02	Conductivity	832.95	uS/cm
GS-AP-MW-17	2/2/2021 14:02	DO	5.9	mg/L
GS-AP-MW-17	2/2/2021 14:02	Depth to Water Detail	172.25	ft
GS-AP-MW-17	2/2/2021 14:02	Oxidation Reduction Potention	-143.42	mv
GS-AP-MW-17	2/2/2021 14:02	pH	7.67	SU
GS-AP-MW-17	2/2/2021 14:02	Temperature	13.28	C
GS-AP-MW-17	2/2/2021 14:02	Turbidity	0.65	NTU
GS-AP-MW-17	2/2/2021 14:07	Conductivity	896.73	uS/cm
GS-AP-MW-17	2/2/2021 14:07	DO	2.33	mg/L
GS-AP-MW-17	2/2/2021 14:07	Depth to Water Detail	172.25	ft
GS-AP-MW-17	2/2/2021 14:07	Oxidation Reduction Potention	-188.94	mv
GS-AP-MW-17	2/2/2021 14:07	pH	7.99	SU
GS-AP-MW-17	2/2/2021 14:07	Temperature	13.32	C
GS-AP-MW-17	2/2/2021 14:07	Turbidity	9.44	NTU
GS-AP-MW-17	2/2/2021 14:12	Conductivity	926.57	uS/cm
GS-AP-MW-17	2/2/2021 14:12	DO	1.33	mg/L
GS-AP-MW-17	2/2/2021 14:12	Depth to Water Detail	172.25	ft
GS-AP-MW-17	2/2/2021 14:12	Oxidation Reduction Potention	-185.86	mv
GS-AP-MW-17	2/2/2021 14:12	pH	8.3	SU
GS-AP-MW-17	2/2/2021 14:12	Temperature	13.45	C
GS-AP-MW-17	2/2/2021 14:12	Turbidity	10.75	NTU
GS-AP-MW-17	2/2/2021 14:17	Conductivity	915.35	uS/cm
GS-AP-MW-17	2/2/2021 14:17	DO	1.05	mg/L
GS-AP-MW-17	2/2/2021 14:17	Depth to Water Detail	172.25	ft
GS-AP-MW-17	2/2/2021 14:17	Oxidation Reduction Potention	-175.26	mv
GS-AP-MW-17	2/2/2021 14:17	pH	8.39	SU
GS-AP-MW-17	2/2/2021 14:17	Temperature	13.4	C
GS-AP-MW-17	2/2/2021 14:17	Turbidity	7.99	NTU
GS-AP-MW-17	2/2/2021 14:22	Conductivity	906.41	uS/cm
GS-AP-MW-17	2/2/2021 14:22	DO	0.93	mg/L
GS-AP-MW-17	2/2/2021 14:22	Depth to Water Detail	172.25	ft
GS-AP-MW-17	2/2/2021 14:22	Oxidation Reduction Potention	-173.43	mv
GS-AP-MW-17	2/2/2021 14:22	pH	8.41	SU
GS-AP-MW-17	2/2/2021 14:22	Temperature	13.38	C
GS-AP-MW-17	2/2/2021 14:22	Turbidity	6.88	NTU
GS-AP-MW-17	2/2/2021 14:27	Conductivity	897.73	uS/cm
GS-AP-MW-17	2/2/2021 14:27	DO	0.87	mg/L
GS-AP-MW-17	2/2/2021 14:27	Depth to Water Detail	172.25	ft
GS-AP-MW-17	2/2/2021 14:27	Oxidation Reduction Potention	-173.63	mv
GS-AP-MW-17	2/2/2021 14:27	pH	8.41	SU
GS-AP-MW-17	2/2/2021 14:27	Temperature	13.44	C
GS-AP-MW-17	2/2/2021 14:27	Turbidity	5.77	NTU
GS-AP-MW-17	2/2/2021 14:32	Conductivity	890.43	uS/cm
GS-AP-MW-17	2/2/2021 14:32	DO	0.83	mg/L
GS-AP-MW-17	2/2/2021 14:32	Depth to Water Detail	172.25	ft
GS-AP-MW-17	2/2/2021 14:32	Oxidation Reduction Potention	-175.22	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17	2/2/2021 14:32	pH	8.43	SU
GS-AP-MW-17	2/2/2021 14:32	Temperature	13.35	C
GS-AP-MW-17	2/2/2021 14:32	Turbidity	4.42	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17V	2/2/2021 11:59	Conductivity	605.42	uS/cm
GS-AP-MW-17V	2/2/2021 11:59	DO	0.33	mg/L
GS-AP-MW-17V	2/2/2021 11:59	Depth to Water Detail	108.33	ft
GS-AP-MW-17V	2/2/2021 11:59	Oxidation Reduction Potention	-129.77	mv
GS-AP-MW-17V	2/2/2021 11:59	pH	7.48	SU
GS-AP-MW-17V	2/2/2021 11:59	Temperature	16.04	C
GS-AP-MW-17V	2/2/2021 11:59	Turbidity	2.41	NTU
GS-AP-MW-17V	2/2/2021 12:04	Conductivity	598.75	uS/cm
GS-AP-MW-17V	2/2/2021 12:04	DO	0.24	mg/L
GS-AP-MW-17V	2/2/2021 12:04	Depth to Water Detail	111.58	ft
GS-AP-MW-17V	2/2/2021 12:04	Oxidation Reduction Potention	-137.09	mv
GS-AP-MW-17V	2/2/2021 12:04	pH	7.49	SU
GS-AP-MW-17V	2/2/2021 12:04	Temperature	16.31	C
GS-AP-MW-17V	2/2/2021 12:04	Turbidity	1.74	NTU
GS-AP-MW-17V	2/2/2021 12:09	Conductivity	591.67	uS/cm
GS-AP-MW-17V	2/2/2021 12:09	DO	0.18	mg/L
GS-AP-MW-17V	2/2/2021 12:09	Depth to Water Detail	113.2	ft
GS-AP-MW-17V	2/2/2021 12:09	Oxidation Reduction Potention	-141.6	mv
GS-AP-MW-17V	2/2/2021 12:09	pH	7.5	SU
GS-AP-MW-17V	2/2/2021 12:09	Temperature	16.36	C
GS-AP-MW-17V	2/2/2021 12:09	Turbidity	2.11	NTU
GS-AP-MW-17V	2/2/2021 12:14	Conductivity	587.17	uS/cm
GS-AP-MW-17V	2/2/2021 12:14	DO	0.16	mg/L
GS-AP-MW-17V	2/2/2021 12:14	Depth to Water Detail	115.75	ft
GS-AP-MW-17V	2/2/2021 12:14	Oxidation Reduction Potention	-143.94	mv
GS-AP-MW-17V	2/2/2021 12:14	pH	7.51	SU
GS-AP-MW-17V	2/2/2021 12:14	Temperature	16.3	C
GS-AP-MW-17V	2/2/2021 12:14	Turbidity	1.71	NTU
GS-AP-MW-17V	2/2/2021 12:19	Conductivity	580.26	uS/cm
GS-AP-MW-17V	2/2/2021 12:19	DO	0.16	mg/L
GS-AP-MW-17V	2/2/2021 12:19	Depth to Water Detail	117.75	ft
GS-AP-MW-17V	2/2/2021 12:19	Oxidation Reduction Potention	-147.06	mv
GS-AP-MW-17V	2/2/2021 12:19	pH	7.52	SU
GS-AP-MW-17V	2/2/2021 12:19	Temperature	16.26	C
GS-AP-MW-17V	2/2/2021 12:19	Turbidity	2.76	NTU
GS-AP-MW-17V	2/2/2021 12:24	Conductivity	580.16	uS/cm
GS-AP-MW-17V	2/2/2021 12:24	DO	0.14	mg/L
GS-AP-MW-17V	2/2/2021 12:24	Depth to Water Detail	120.3	ft
GS-AP-MW-17V	2/2/2021 12:24	Oxidation Reduction Potention	-149.35	mv
GS-AP-MW-17V	2/2/2021 12:24	pH	7.52	SU
GS-AP-MW-17V	2/2/2021 12:24	Temperature	16.31	C
GS-AP-MW-17V	2/2/2021 12:24	Turbidity	2.54	NTU
GS-AP-MW-17V	2/2/2021 12:29	Conductivity	581.57	uS/cm
GS-AP-MW-17V	2/2/2021 12:29	DO	0.13	mg/L
GS-AP-MW-17V	2/2/2021 12:29	Depth to Water Detail	121.9	ft
GS-AP-MW-17V	2/2/2021 12:29	Oxidation Reduction Potention	-151	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17V	2/2/2021 12:29	pH	7.53	SU
GS-AP-MW-17V	2/2/2021 12:29	Temperature	16.28	C
GS-AP-MW-17V	2/2/2021 12:29	Turbidity	3.11	NTU
GS-AP-MW-17V	2/2/2021 12:34	Conductivity	586.48	uS/cm
GS-AP-MW-17V	2/2/2021 12:34	DO	0.13	mg/L
GS-AP-MW-17V	2/2/2021 12:34	Depth to Water Detail	123.9	ft
GS-AP-MW-17V	2/2/2021 12:34	Oxidation Reduction Potention	-150.59	mv
GS-AP-MW-17V	2/2/2021 12:34	pH	7.53	SU
GS-AP-MW-17V	2/2/2021 12:34	Temperature	16.25	C
GS-AP-MW-17V	2/2/2021 12:34	Turbidity	2.83	NTU
GS-AP-MW-17V	2/2/2021 12:39	Conductivity	580.74	uS/cm
GS-AP-MW-17V	2/2/2021 12:39	DO	0.13	mg/L
GS-AP-MW-17V	2/2/2021 12:39	Depth to Water Detail	125.6	ft
GS-AP-MW-17V	2/2/2021 12:39	Oxidation Reduction Potention	-150.52	mv
GS-AP-MW-17V	2/2/2021 12:39	pH	7.54	SU
GS-AP-MW-17V	2/2/2021 12:39	Temperature	16.24	C
GS-AP-MW-17V	2/2/2021 12:39	Turbidity	1.45	NTU
GS-AP-MW-17V	2/2/2021 12:44	Conductivity	586.48	uS/cm
GS-AP-MW-17V	2/2/2021 12:44	DO	0.41	mg/L
GS-AP-MW-17V	2/2/2021 12:44	Depth to Water Detail	126.4	ft
GS-AP-MW-17V	2/2/2021 12:44	Oxidation Reduction Potention	-130.05	mv
GS-AP-MW-17V	2/2/2021 12:44	pH	7.55	SU
GS-AP-MW-17V	2/2/2021 12:44	Temperature	14.62	C
GS-AP-MW-17V	2/2/2021 12:44	Turbidity	2.78	NTU
GS-AP-MW-17V	2/2/2021 12:49	Conductivity	583.66	uS/cm
GS-AP-MW-17V	2/2/2021 12:49	DO	0.54	mg/L
GS-AP-MW-17V	2/2/2021 12:49	Depth to Water Detail	126.2	ft
GS-AP-MW-17V	2/2/2021 12:49	Oxidation Reduction Potention	-119.53	mv
GS-AP-MW-17V	2/2/2021 12:49	pH	7.53	SU
GS-AP-MW-17V	2/2/2021 12:49	Temperature	14.54	C
GS-AP-MW-17V	2/2/2021 12:49	Turbidity	1.68	NTU
GS-AP-MW-17V	2/2/2021 12:54	Conductivity	575.01	uS/cm
GS-AP-MW-17V	2/2/2021 12:54	DO	0.6	mg/L
GS-AP-MW-17V	2/2/2021 12:54	Depth to Water Detail	126.05	ft
GS-AP-MW-17V	2/2/2021 12:54	Oxidation Reduction Potention	-121.33	mv
GS-AP-MW-17V	2/2/2021 12:54	pH	7.57	SU
GS-AP-MW-17V	2/2/2021 12:54	Temperature	14.53	C
GS-AP-MW-17V	2/2/2021 12:54	Turbidity	1.19	NTU
GS-AP-MW-17V	2/2/2021 12:59	Conductivity	558.18	uS/cm
GS-AP-MW-17V	2/2/2021 12:59	DO	0.64	mg/L
GS-AP-MW-17V	2/2/2021 12:59	Depth to Water Detail	125.9	ft
GS-AP-MW-17V	2/2/2021 12:59	Oxidation Reduction Potention	-124.25	mv
GS-AP-MW-17V	2/2/2021 12:59	pH	7.58	SU
GS-AP-MW-17V	2/2/2021 12:59	Temperature	15.04	C
GS-AP-MW-17V	2/2/2021 12:59	Turbidity	0.84	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-22	2/2/2021 15:42	Conductivity	696.78	uS/cm
GS-AP-PZ-22	2/2/2021 15:42	DO	0.41	mg/L
GS-AP-PZ-22	2/2/2021 15:42	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 15:42	Oxidation Reduction Potention	-292.57	mv
GS-AP-PZ-22	2/2/2021 15:42	pH	9.21	SU
GS-AP-PZ-22	2/2/2021 15:42	Temperature	16.11	C
GS-AP-PZ-22	2/2/2021 15:42	Turbidity	1.39	NTU
GS-AP-PZ-22	2/2/2021 15:47	Conductivity	722.28	uS/cm
GS-AP-PZ-22	2/2/2021 15:47	DO	0.29	mg/L
GS-AP-PZ-22	2/2/2021 15:47	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 15:47	Oxidation Reduction Potention	-272.32	mv
GS-AP-PZ-22	2/2/2021 15:47	pH	9.42	SU
GS-AP-PZ-22	2/2/2021 15:47	Temperature	15.93	C
GS-AP-PZ-22	2/2/2021 15:47	Turbidity	2.77	NTU
GS-AP-PZ-22	2/2/2021 15:52	Conductivity	719.13	uS/cm
GS-AP-PZ-22	2/2/2021 15:52	DO	0.23	mg/L
GS-AP-PZ-22	2/2/2021 15:52	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 15:52	Oxidation Reduction Potention	-260.9	mv
GS-AP-PZ-22	2/2/2021 15:52	pH	9.39	SU
GS-AP-PZ-22	2/2/2021 15:52	Temperature	16.07	C
GS-AP-PZ-22	2/2/2021 15:52	Turbidity	0.9	NTU
GS-AP-PZ-22	2/2/2021 15:57	Conductivity	707.78	uS/cm
GS-AP-PZ-22	2/2/2021 15:57	DO	0.18	mg/L
GS-AP-PZ-22	2/2/2021 15:57	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 15:57	Oxidation Reduction Potention	-279.08	mv
GS-AP-PZ-22	2/2/2021 15:57	pH	9.11	SU
GS-AP-PZ-22	2/2/2021 15:57	Temperature	16.18	C
GS-AP-PZ-22	2/2/2021 15:57	Turbidity	0.89	NTU
GS-AP-PZ-22	2/2/2021 16:02	Conductivity	696.53	uS/cm
GS-AP-PZ-22	2/2/2021 16:02	DO	0.14	mg/L
GS-AP-PZ-22	2/2/2021 16:02	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 16:02	Oxidation Reduction Potention	-283.76	mv
GS-AP-PZ-22	2/2/2021 16:02	pH	8.57	SU
GS-AP-PZ-22	2/2/2021 16:02	Temperature	16.27	C
GS-AP-PZ-22	2/2/2021 16:02	Turbidity	1.18	NTU
GS-AP-PZ-22	2/2/2021 16:07	Conductivity	696.14	uS/cm
GS-AP-PZ-22	2/2/2021 16:07	DO	0.13	mg/L
GS-AP-PZ-22	2/2/2021 16:07	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 16:07	Oxidation Reduction Potention	-244.22	mv
GS-AP-PZ-22	2/2/2021 16:07	pH	8.14	SU
GS-AP-PZ-22	2/2/2021 16:07	Temperature	16.01	C
GS-AP-PZ-22	2/2/2021 16:07	Turbidity	0.44	NTU
GS-AP-PZ-22	2/2/2021 16:12	Conductivity	693.27	uS/cm
GS-AP-PZ-22	2/2/2021 16:12	DO	0.15	mg/L
GS-AP-PZ-22	2/2/2021 16:12	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 16:12	Oxidation Reduction Potention	-214.24	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-22	2/2/2021 16:12	pH	7.82	SU
GS-AP-PZ-22	2/2/2021 16:12	Temperature	16.12	C
GS-AP-PZ-22	2/2/2021 16:12	Turbidity	0.46	NTU
GS-AP-PZ-22	2/2/2021 16:17	Conductivity	689.83	uS/cm
GS-AP-PZ-22	2/2/2021 16:17	DO	0.16	mg/L
GS-AP-PZ-22	2/2/2021 16:17	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 16:17	Oxidation Reduction Potention	-199.76	mv
GS-AP-PZ-22	2/2/2021 16:17	pH	7.64	SU
GS-AP-PZ-22	2/2/2021 16:17	Temperature	16.21	C
GS-AP-PZ-22	2/2/2021 16:17	Turbidity	0.43	NTU
GS-AP-PZ-22	2/2/2021 16:22	Conductivity	688.28	uS/cm
GS-AP-PZ-22	2/2/2021 16:22	DO	0.16	mg/L
GS-AP-PZ-22	2/2/2021 16:22	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 16:22	Oxidation Reduction Potention	-191.4	mv
GS-AP-PZ-22	2/2/2021 16:22	pH	7.54	SU
GS-AP-PZ-22	2/2/2021 16:22	Temperature	15.75	C
GS-AP-PZ-22	2/2/2021 16:22	Turbidity	0.15	NTU
GS-AP-PZ-22	2/2/2021 16:27	Conductivity	686.55	uS/cm
GS-AP-PZ-22	2/2/2021 16:27	DO	0.15	mg/L
GS-AP-PZ-22	2/2/2021 16:27	Depth to Water Detail	240.69	ft
GS-AP-PZ-22	2/2/2021 16:27	Oxidation Reduction Potention	-187.57	mv
GS-AP-PZ-22	2/2/2021 16:27	pH	7.5	SU
GS-AP-PZ-22	2/2/2021 16:27	Temperature	16.1	C
GS-AP-PZ-22	2/2/2021 16:27	Turbidity	0.14	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15	2/9/2021 12:53	Conductivity	2041.47	uS/cm
GS-AP-MW-15	2/9/2021 12:53	DO	0.27	mg/L
GS-AP-MW-15	2/9/2021 12:53	Depth to Water Detail	84.16	ft
GS-AP-MW-15	2/9/2021 12:53	Oxidation Reduction Potention	-224	mv
GS-AP-MW-15	2/9/2021 12:53	pH	11.84	SU
GS-AP-MW-15	2/9/2021 12:53	Temperature	17.36	C
GS-AP-MW-15	2/9/2021 12:53	Turbidity	4.72	NTU
GS-AP-MW-15	2/9/2021 12:58	Conductivity	2059.92	uS/cm
GS-AP-MW-15	2/9/2021 12:58	DO	0.22	mg/L
GS-AP-MW-15	2/9/2021 12:58	Depth to Water Detail	86.11	ft
GS-AP-MW-15	2/9/2021 12:58	Oxidation Reduction Potention	-248.17	mv
GS-AP-MW-15	2/9/2021 12:58	pH	11.86	SU
GS-AP-MW-15	2/9/2021 12:58	Temperature	17.16	C
GS-AP-MW-15	2/9/2021 12:58	Turbidity	1.08	NTU
GS-AP-MW-15	2/9/2021 13:03	Conductivity	2047.79	uS/cm
GS-AP-MW-15	2/9/2021 13:03	DO	0.21	mg/L
GS-AP-MW-15	2/9/2021 13:03	Depth to Water Detail	87.76	ft
GS-AP-MW-15	2/9/2021 13:03	Oxidation Reduction Potention	-257.54	mv
GS-AP-MW-15	2/9/2021 13:03	pH	11.86	SU
GS-AP-MW-15	2/9/2021 13:03	Temperature	17.25	C
GS-AP-MW-15	2/9/2021 13:03	Turbidity	0.88	NTU
GS-AP-MW-15	2/9/2021 13:08	Conductivity	2043.67	uS/cm
GS-AP-MW-15	2/9/2021 13:08	DO	0.22	mg/L
GS-AP-MW-15	2/9/2021 13:08	Depth to Water Detail	89.04	ft
GS-AP-MW-15	2/9/2021 13:08	Oxidation Reduction Potention	-261.07	mv
GS-AP-MW-15	2/9/2021 13:08	pH	11.87	SU
GS-AP-MW-15	2/9/2021 13:08	Temperature	17.16	C
GS-AP-MW-15	2/9/2021 13:08	Turbidity	0.71	NTU
GS-AP-MW-15	2/9/2021 13:13	Conductivity	2012.4	uS/cm
GS-AP-MW-15	2/9/2021 13:13	DO	0.22	mg/L
GS-AP-MW-15	2/9/2021 13:13	Depth to Water Detail	90.98	ft
GS-AP-MW-15	2/9/2021 13:13	Oxidation Reduction Potention	-262.59	mv
GS-AP-MW-15	2/9/2021 13:13	pH	11.88	SU
GS-AP-MW-15	2/9/2021 13:13	Temperature	17.21	C
GS-AP-MW-15	2/9/2021 13:13	Turbidity	0.62	NTU
GS-AP-MW-15	2/9/2021 13:18	Conductivity	2007.78	uS/cm
GS-AP-MW-15	2/9/2021 13:18	DO	0.37	mg/L
GS-AP-MW-15	2/9/2021 13:18	Depth to Water Detail	91.27	ft
GS-AP-MW-15	2/9/2021 13:18	Oxidation Reduction Potention	-255.86	mv
GS-AP-MW-15	2/9/2021 13:18	pH	11.88	SU
GS-AP-MW-15	2/9/2021 13:18	Temperature	17.25	C
GS-AP-MW-15	2/9/2021 13:18	Turbidity	0.75	NTU
GS-AP-MW-15	2/9/2021 13:23	Conductivity	2002.89	uS/cm
GS-AP-MW-15	2/9/2021 13:23	DO	0.41	mg/L
GS-AP-MW-15	2/9/2021 13:23	Depth to Water Detail	91.39	ft
GS-AP-MW-15	2/9/2021 13:23	Oxidation Reduction Potention	-252.75	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15	2/9/2021 13:23	pH	11.89	SU
GS-AP-MW-15	2/9/2021 13:23	Temperature	17.37	C
GS-AP-MW-15	2/9/2021 13:23	Turbidity	0.61	NTU
GS-AP-MW-15	2/9/2021 13:28	Conductivity	1979.45	uS/cm
GS-AP-MW-15	2/9/2021 13:28	DO	0.47	mg/L
GS-AP-MW-15	2/9/2021 13:28	Depth to Water Detail	91.47	ft
GS-AP-MW-15	2/9/2021 13:28	Oxidation Reduction Potention	-250.66	mv
GS-AP-MW-15	2/9/2021 13:28	pH	11.88	SU
GS-AP-MW-15	2/9/2021 13:28	Temperature	17.4	C
GS-AP-MW-15	2/9/2021 13:28	Turbidity	0.68	NTU
GS-AP-MW-15	2/9/2021 13:33	Conductivity	1942.55	uS/cm
GS-AP-MW-15	2/9/2021 13:33	DO	0.52	mg/L
GS-AP-MW-15	2/9/2021 13:33	Depth to Water Detail	91.59	ft
GS-AP-MW-15	2/9/2021 13:33	Oxidation Reduction Potention	-249.06	mv
GS-AP-MW-15	2/9/2021 13:33	pH	11.88	SU
GS-AP-MW-15	2/9/2021 13:33	Temperature	17.38	C
GS-AP-MW-15	2/9/2021 13:33	Turbidity	0.62	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15V	2/9/2021 14:16	Conductivity	1499.02	uS/cm
GS-AP-MW-15V	2/9/2021 14:16	DO	2.12	mg/L
GS-AP-MW-15V	2/9/2021 14:16	Depth to Water Detail	147.07	ft
GS-AP-MW-15V	2/9/2021 14:16	Oxidation Reduction Potention	-176.89	mv
GS-AP-MW-15V	2/9/2021 14:16	pH	9.41	SU
GS-AP-MW-15V	2/9/2021 14:16	Temperature	18.08	C
GS-AP-MW-15V	2/9/2021 14:16	Turbidity	2.19	NTU
GS-AP-MW-15V	2/9/2021 14:21	Conductivity	1645.73	uS/cm
GS-AP-MW-15V	2/9/2021 14:21	DO	0.97	mg/L
GS-AP-MW-15V	2/9/2021 14:21	Depth to Water Detail	147.42	ft
GS-AP-MW-15V	2/9/2021 14:21	Oxidation Reduction Potention	-203.46	mv
GS-AP-MW-15V	2/9/2021 14:21	pH	9.58	SU
GS-AP-MW-15V	2/9/2021 14:21	Temperature	17.78	C
GS-AP-MW-15V	2/9/2021 14:21	Turbidity	3.89	NTU
GS-AP-MW-15V	2/9/2021 14:26	Conductivity	1727.01	uS/cm
GS-AP-MW-15V	2/9/2021 14:26	DO	0.71	mg/L
GS-AP-MW-15V	2/9/2021 14:26	Depth to Water Detail	147.75	ft
GS-AP-MW-15V	2/9/2021 14:26	Oxidation Reduction Potention	-214.84	mv
GS-AP-MW-15V	2/9/2021 14:26	pH	9.59	SU
GS-AP-MW-15V	2/9/2021 14:26	Temperature	17.52	C
GS-AP-MW-15V	2/9/2021 14:26	Turbidity	4.82	NTU
GS-AP-MW-15V	2/9/2021 14:31	Conductivity	1762.86	uS/cm
GS-AP-MW-15V	2/9/2021 14:31	DO	0.6	mg/L
GS-AP-MW-15V	2/9/2021 14:31	Depth to Water Detail	148.11	ft
GS-AP-MW-15V	2/9/2021 14:31	Oxidation Reduction Potention	-221.64	mv
GS-AP-MW-15V	2/9/2021 14:31	pH	9.57	SU
GS-AP-MW-15V	2/9/2021 14:31	Temperature	17.54	C
GS-AP-MW-15V	2/9/2021 14:31	Turbidity	4.8	NTU
GS-AP-MW-15V	2/9/2021 14:36	Conductivity	1797.59	uS/cm
GS-AP-MW-15V	2/9/2021 14:36	DO	0.55	mg/L
GS-AP-MW-15V	2/9/2021 14:36	Depth to Water Detail	148.35	ft
GS-AP-MW-15V	2/9/2021 14:36	Oxidation Reduction Potention	-226.64	mv
GS-AP-MW-15V	2/9/2021 14:36	pH	9.56	SU
GS-AP-MW-15V	2/9/2021 14:36	Temperature	17.38	C
GS-AP-MW-15V	2/9/2021 14:36	Turbidity	3.96	NTU
GS-AP-MW-15V	2/9/2021 14:41	Conductivity	1809.45	uS/cm
GS-AP-MW-15V	2/9/2021 14:41	DO	0.57	mg/L
GS-AP-MW-15V	2/9/2021 14:41	Depth to Water Detail	148.57	ft
GS-AP-MW-15V	2/9/2021 14:41	Oxidation Reduction Potention	-228.13	mv
GS-AP-MW-15V	2/9/2021 14:41	pH	9.55	SU
GS-AP-MW-15V	2/9/2021 14:41	Temperature	17.25	C
GS-AP-MW-15V	2/9/2021 14:41	Turbidity	2.95	NTU
GS-AP-MW-15V	2/9/2021 14:46	Conductivity	1812.25	uS/cm
GS-AP-MW-15V	2/9/2021 14:46	DO	0.56	mg/L
GS-AP-MW-15V	2/9/2021 14:46	Depth to Water Detail	148.77	ft
GS-AP-MW-15V	2/9/2021 14:46	Oxidation Reduction Potention	-229.89	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15V	2/9/2021 14:46	pH	9.55	SU
GS-AP-MW-15V	2/9/2021 14:46	Temperature	17.33	C
GS-AP-MW-15V	2/9/2021 14:46	Turbidity	2.74	NTU
GS-AP-MW-15V	2/9/2021 14:51	Conductivity	1813.44	uS/cm
GS-AP-MW-15V	2/9/2021 14:51	DO	0.59	mg/L
GS-AP-MW-15V	2/9/2021 14:51	Depth to Water Detail	149.02	ft
GS-AP-MW-15V	2/9/2021 14:51	Oxidation Reduction Potention	-230.08	mv
GS-AP-MW-15V	2/9/2021 14:51	pH	9.55	SU
GS-AP-MW-15V	2/9/2021 14:51	Temperature	17.2	C
GS-AP-MW-15V	2/9/2021 14:51	Turbidity	1.82	NTU
GS-AP-MW-15V	2/9/2021 14:56	Conductivity	1812.75	uS/cm
GS-AP-MW-15V	2/9/2021 14:56	DO	0.61	mg/L
GS-AP-MW-15V	2/9/2021 14:56	Depth to Water Detail	149.17	ft
GS-AP-MW-15V	2/9/2021 14:56	Oxidation Reduction Potention	-229.52	mv
GS-AP-MW-15V	2/9/2021 14:56	pH	9.55	SU
GS-AP-MW-15V	2/9/2021 14:56	Temperature	17.19	C
GS-AP-MW-15V	2/9/2021 14:56	Turbidity	2.31	NTU
GS-AP-MW-15V	2/9/2021 15:01	Conductivity	1811.73	uS/cm
GS-AP-MW-15V	2/9/2021 15:01	DO	0.65	mg/L
GS-AP-MW-15V	2/9/2021 15:01	Depth to Water Detail	149.28	ft
GS-AP-MW-15V	2/9/2021 15:01	Oxidation Reduction Potention	-229.81	mv
GS-AP-MW-15V	2/9/2021 15:01	pH	9.55	SU
GS-AP-MW-15V	2/9/2021 15:01	Temperature	17.26	C
GS-AP-MW-15V	2/9/2021 15:01	Turbidity	1.73	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-18	2/8/2021 12:39	Conductivity	587.85	uS/cm
GS-AP-MW-18	2/8/2021 12:39	DO	0.23	mg/L
GS-AP-MW-18	2/8/2021 12:39	Depth to Water Detail	47.26	ft
GS-AP-MW-18	2/8/2021 12:39	Oxidation Reduction Potention	-153.86	mv
GS-AP-MW-18	2/8/2021 12:39	pH	7.42	SU
GS-AP-MW-18	2/8/2021 12:39	Temperature	16.61	C
GS-AP-MW-18	2/8/2021 12:39	Turbidity	3.2	NTU
GS-AP-MW-18	2/8/2021 12:44	Conductivity	588.45	uS/cm
GS-AP-MW-18	2/8/2021 12:44	DO	0.2	mg/L
GS-AP-MW-18	2/8/2021 12:44	Depth to Water Detail	47.34	ft
GS-AP-MW-18	2/8/2021 12:44	Oxidation Reduction Potention	-146.6	mv
GS-AP-MW-18	2/8/2021 12:44	pH	7.39	SU
GS-AP-MW-18	2/8/2021 12:44	Temperature	16.63	C
GS-AP-MW-18	2/8/2021 12:44	Turbidity	1.89	NTU
GS-AP-MW-18	2/8/2021 12:49	Conductivity	600.3	uS/cm
GS-AP-MW-18	2/8/2021 12:49	DO	0.19	mg/L
GS-AP-MW-18	2/8/2021 12:49	Depth to Water Detail	47.36	ft
GS-AP-MW-18	2/8/2021 12:49	Oxidation Reduction Potention	-150.52	mv
GS-AP-MW-18	2/8/2021 12:49	pH	7.44	SU
GS-AP-MW-18	2/8/2021 12:49	Temperature	16.58	C
GS-AP-MW-18	2/8/2021 12:49	Turbidity	1.79	NTU
GS-AP-MW-18	2/8/2021 12:54	Conductivity	608.11	uS/cm
GS-AP-MW-18	2/8/2021 12:54	DO	0.19	mg/L
GS-AP-MW-18	2/8/2021 12:54	Depth to Water Detail	47.36	ft
GS-AP-MW-18	2/8/2021 12:54	Oxidation Reduction Potention	-158.28	mv
GS-AP-MW-18	2/8/2021 12:54	pH	7.49	SU
GS-AP-MW-18	2/8/2021 12:54	Temperature	16.58	C
GS-AP-MW-18	2/8/2021 12:54	Turbidity	1.48	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-19	2/8/2021 9:51	Conductivity	512.35	uS/cm
GS-AP-MW-19	2/8/2021 9:51	DO	0.48	mg/L
GS-AP-MW-19	2/8/2021 9:51	Depth to Water Detail	112.63	ft
GS-AP-MW-19	2/8/2021 9:51	Oxidation Reduction Potention	-164.71	mv
GS-AP-MW-19	2/8/2021 9:51	pH	8.02	SU
GS-AP-MW-19	2/8/2021 9:51	Temperature	15.83	C
GS-AP-MW-19	2/8/2021 9:51	Turbidity	0.1	NTU
GS-AP-MW-19	2/8/2021 9:56	Conductivity	511.89	uS/cm
GS-AP-MW-19	2/8/2021 9:56	DO	0.35	mg/L
GS-AP-MW-19	2/8/2021 9:56	Depth to Water Detail	112.63	ft
GS-AP-MW-19	2/8/2021 9:56	Oxidation Reduction Potention	-173.84	mv
GS-AP-MW-19	2/8/2021 9:56	pH	8.01	SU
GS-AP-MW-19	2/8/2021 9:56	Temperature	16.03	C
GS-AP-MW-19	2/8/2021 9:56	Turbidity	0.07	NTU
GS-AP-MW-19	2/8/2021 10:01	Conductivity	517.7	uS/cm
GS-AP-MW-19	2/8/2021 10:01	DO	0.31	mg/L
GS-AP-MW-19	2/8/2021 10:01	Depth to Water Detail	112.63	ft
GS-AP-MW-19	2/8/2021 10:01	Oxidation Reduction Potention	-180.33	mv
GS-AP-MW-19	2/8/2021 10:01	pH	8.03	SU
GS-AP-MW-19	2/8/2021 10:01	Temperature	16.05	C
GS-AP-MW-19	2/8/2021 10:01	Turbidity	0.27	NTU
GS-AP-MW-19	2/8/2021 10:06	Conductivity	520.81	uS/cm
GS-AP-MW-19	2/8/2021 10:06	DO	0.31	mg/L
GS-AP-MW-19	2/8/2021 10:06	Depth to Water Detail	112.63	ft
GS-AP-MW-19	2/8/2021 10:06	Oxidation Reduction Potention	-171.68	mv
GS-AP-MW-19	2/8/2021 10:06	pH	7.89	SU
GS-AP-MW-19	2/8/2021 10:06	Temperature	16.08	C
GS-AP-MW-19	2/8/2021 10:06	Turbidity	0.07	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21	2/8/2021 14:05	Conductivity	1074.34	uS/cm
GS-AP-MW-21	2/8/2021 14:05	DO	5.9	mg/L
GS-AP-MW-21	2/8/2021 14:05	Depth to Water Detail	161.54	ft
GS-AP-MW-21	2/8/2021 14:05	Oxidation Reduction Potention	-55.8	mv
GS-AP-MW-21	2/8/2021 14:05	pH	9.92	SU
GS-AP-MW-21	2/8/2021 14:05	Temperature	18.66	C
GS-AP-MW-21	2/8/2021 14:05	Turbidity	1.24	NTU
GS-AP-MW-21	2/8/2021 14:10	Conductivity	1201.43	uS/cm
GS-AP-MW-21	2/8/2021 14:10	DO	2.6	mg/L
GS-AP-MW-21	2/8/2021 14:10	Depth to Water Detail	161.69	ft
GS-AP-MW-21	2/8/2021 14:10	Oxidation Reduction Potention	-120.01	mv
GS-AP-MW-21	2/8/2021 14:10	pH	10.71	SU
GS-AP-MW-21	2/8/2021 14:10	Temperature	18.14	C
GS-AP-MW-21	2/8/2021 14:10	Turbidity	1.68	NTU
GS-AP-MW-21	2/8/2021 14:15	Conductivity	1380.61	uS/cm
GS-AP-MW-21	2/8/2021 14:15	DO	1.51	mg/L
GS-AP-MW-21	2/8/2021 14:15	Depth to Water Detail	161.74	ft
GS-AP-MW-21	2/8/2021 14:15	Oxidation Reduction Potention	-164.11	mv
GS-AP-MW-21	2/8/2021 14:15	pH	11.22	SU
GS-AP-MW-21	2/8/2021 14:15	Temperature	18.25	C
GS-AP-MW-21	2/8/2021 14:15	Turbidity	3.06	NTU
GS-AP-MW-21	2/8/2021 14:20	Conductivity	1439.53	uS/cm
GS-AP-MW-21	2/8/2021 14:20	DO	1.29	mg/L
GS-AP-MW-21	2/8/2021 14:20	Depth to Water Detail	161.79	ft
GS-AP-MW-21	2/8/2021 14:20	Oxidation Reduction Potention	-183.88	mv
GS-AP-MW-21	2/8/2021 14:20	pH	11.32	SU
GS-AP-MW-21	2/8/2021 14:20	Temperature	18.18	C
GS-AP-MW-21	2/8/2021 14:20	Turbidity	1.43	NTU
GS-AP-MW-21	2/8/2021 14:25	Conductivity	1435.44	uS/cm
GS-AP-MW-21	2/8/2021 14:25	DO	1.14	mg/L
GS-AP-MW-21	2/8/2021 14:25	Depth to Water Detail	161.81	ft
GS-AP-MW-21	2/8/2021 14:25	Oxidation Reduction Potention	-193.4	mv
GS-AP-MW-21	2/8/2021 14:25	pH	11.32	SU
GS-AP-MW-21	2/8/2021 14:25	Temperature	17.96	C
GS-AP-MW-21	2/8/2021 14:25	Turbidity	0.47	NTU
GS-AP-MW-21	2/8/2021 14:30	Conductivity	1404.81	uS/cm
GS-AP-MW-21	2/8/2021 14:30	DO	1.09	mg/L
GS-AP-MW-21	2/8/2021 14:30	Depth to Water Detail	161.81	ft
GS-AP-MW-21	2/8/2021 14:30	Oxidation Reduction Potention	-199.51	mv
GS-AP-MW-21	2/8/2021 14:30	pH	11.28	SU
GS-AP-MW-21	2/8/2021 14:30	Temperature	18.21	C
GS-AP-MW-21	2/8/2021 14:30	Turbidity	1.55	NTU
GS-AP-MW-21	2/8/2021 14:35	Conductivity	1352.64	uS/cm
GS-AP-MW-21	2/8/2021 14:35	DO	1.06	mg/L
GS-AP-MW-21	2/8/2021 14:35	Depth to Water Detail	161.82	ft
GS-AP-MW-21	2/8/2021 14:35	Oxidation Reduction Potention	-202.19	mv

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21	2/8/2021 14:35	pH	11.19	SU
GS-AP-MW-21	2/8/2021 14:35	Temperature	18.08	C
GS-AP-MW-21	2/8/2021 14:35	Turbidity	1.23	NTU
GS-AP-MW-21	2/8/2021 14:40	Conductivity	1297.15	uS/cm
GS-AP-MW-21	2/8/2021 14:40	DO	1.06	mg/L
GS-AP-MW-21	2/8/2021 14:40	Depth to Water Detail	161.84	ft
GS-AP-MW-21	2/8/2021 14:40	Oxidation Reduction Potention	-203.29	mv
GS-AP-MW-21	2/8/2021 14:40	pH	11.08	SU
GS-AP-MW-21	2/8/2021 14:40	Temperature	18.02	C
GS-AP-MW-21	2/8/2021 14:40	Turbidity	1.47	NTU
GS-AP-MW-21	2/8/2021 14:45	Conductivity	1258.95	uS/cm
GS-AP-MW-21	2/8/2021 14:45	DO	1.07	mg/L
GS-AP-MW-21	2/8/2021 14:45	Depth to Water Detail	161.84	ft
GS-AP-MW-21	2/8/2021 14:45	Oxidation Reduction Potention	-205.07	mv
GS-AP-MW-21	2/8/2021 14:45	pH	10.98	SU
GS-AP-MW-21	2/8/2021 14:45	Temperature	18.22	C
GS-AP-MW-21	2/8/2021 14:45	Turbidity	0.68	NTU
GS-AP-MW-21	2/8/2021 14:50	Conductivity	1218.82	uS/cm
GS-AP-MW-21	2/8/2021 14:50	DO	1.03	mg/L
GS-AP-MW-21	2/8/2021 14:50	Depth to Water Detail	161.84	ft
GS-AP-MW-21	2/8/2021 14:50	Oxidation Reduction Potention	-205.66	mv
GS-AP-MW-21	2/8/2021 14:50	pH	10.86	SU
GS-AP-MW-21	2/8/2021 14:50	Temperature	18.06	C
GS-AP-MW-21	2/8/2021 14:50	Turbidity	0.53	NTU
GS-AP-MW-21	2/8/2021 14:55	Conductivity	1187.75	uS/cm
GS-AP-MW-21	2/8/2021 14:55	DO	1.02	mg/L
GS-AP-MW-21	2/8/2021 14:55	Depth to Water Detail	161.84	ft
GS-AP-MW-21	2/8/2021 14:55	Oxidation Reduction Potention	-205.56	mv
GS-AP-MW-21	2/8/2021 14:55	pH	10.75	SU
GS-AP-MW-21	2/8/2021 14:55	Temperature	17.99	C
GS-AP-MW-21	2/8/2021 14:55	Turbidity	0.79	NTU
GS-AP-MW-21	2/8/2021 15:00	Conductivity	1177.68	uS/cm
GS-AP-MW-21	2/8/2021 15:00	DO	1.03	mg/L
GS-AP-MW-21	2/8/2021 15:00	Depth to Water Detail	161.84	ft
GS-AP-MW-21	2/8/2021 15:00	Oxidation Reduction Potention	-207.27	mv
GS-AP-MW-21	2/8/2021 15:00	pH	10.69	SU
GS-AP-MW-21	2/8/2021 15:00	Temperature	18.06	C
GS-AP-MW-21	2/8/2021 15:00	Turbidity	0.59	NTU

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Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	2/9/2021 8:18	Conductivity	5409.63	uS/cm
GS-AP-MW-21V	2/9/2021 8:18	DO	2.2	mg/L
GS-AP-MW-21V	2/9/2021 8:18	Depth to Water Detail	171.6	ft
GS-AP-MW-21V	2/9/2021 8:18	Oxidation Reduction Potention	-276.05	mv
GS-AP-MW-21V	2/9/2021 8:18	pH	7.76	SU
GS-AP-MW-21V	2/9/2021 8:18	Temperature	16.79	C
GS-AP-MW-21V	2/9/2021 8:18	Turbidity	2.07	NTU
GS-AP-MW-21V	2/9/2021 8:23	Conductivity	5037.88	uS/cm
GS-AP-MW-21V	2/9/2021 8:23	DO	1.04	mg/L
GS-AP-MW-21V	2/9/2021 8:23	Depth to Water Detail	172.38	ft
GS-AP-MW-21V	2/9/2021 8:23	Oxidation Reduction Potention	-282.1	mv
GS-AP-MW-21V	2/9/2021 8:23	pH	7.85	SU
GS-AP-MW-21V	2/9/2021 8:23	Temperature	17.08	C
GS-AP-MW-21V	2/9/2021 8:23	Turbidity	1.95	NTU
GS-AP-MW-21V	2/9/2021 8:28	Conductivity	4799.9	uS/cm
GS-AP-MW-21V	2/9/2021 8:28	DO	0.84	mg/L
GS-AP-MW-21V	2/9/2021 8:28	Depth to Water Detail	173.14	ft
GS-AP-MW-21V	2/9/2021 8:28	Oxidation Reduction Potention	-249.57	mv
GS-AP-MW-21V	2/9/2021 8:28	pH	7.8	SU
GS-AP-MW-21V	2/9/2021 8:28	Temperature	17.1	C
GS-AP-MW-21V	2/9/2021 8:28	Turbidity	1.2	NTU
GS-AP-MW-21V	2/9/2021 8:33	Conductivity	4685.57	uS/cm
GS-AP-MW-21V	2/9/2021 8:33	DO	0.82	mg/L
GS-AP-MW-21V	2/9/2021 8:33	Depth to Water Detail	173.82	ft
GS-AP-MW-21V	2/9/2021 8:33	Oxidation Reduction Potention	-224.12	mv
GS-AP-MW-21V	2/9/2021 8:33	pH	7.78	SU
GS-AP-MW-21V	2/9/2021 8:33	Temperature	17.13	C
GS-AP-MW-21V	2/9/2021 8:33	Turbidity	1.18	NTU
GS-AP-MW-21V	2/9/2021 8:38	Conductivity	4626.21	uS/cm
GS-AP-MW-21V	2/9/2021 8:38	DO	0.8	mg/L
GS-AP-MW-21V	2/9/2021 8:38	Depth to Water Detail	174.42	ft
GS-AP-MW-21V	2/9/2021 8:38	Oxidation Reduction Potention	-210.35	mv
GS-AP-MW-21V	2/9/2021 8:38	pH	7.78	SU
GS-AP-MW-21V	2/9/2021 8:38	Temperature	16.8	C
GS-AP-MW-21V	2/9/2021 8:38	Turbidity	1.08	NTU
GS-AP-MW-21V	2/9/2021 8:43	Conductivity	4591.92	uS/cm
GS-AP-MW-21V	2/9/2021 8:43	DO	0.81	mg/L
GS-AP-MW-21V	2/9/2021 8:43	Depth to Water Detail	175.16	ft
GS-AP-MW-21V	2/9/2021 8:43	Oxidation Reduction Potention	-199.41	mv
GS-AP-MW-21V	2/9/2021 8:43	pH	7.78	SU
GS-AP-MW-21V	2/9/2021 8:43	Temperature	16.62	C
GS-AP-MW-21V	2/9/2021 8:43	Turbidity	1.23	NTU
GS-AP-MW-21V	2/9/2021 8:48	Conductivity	4568.28	uS/cm
GS-AP-MW-21V	2/9/2021 8:48	DO	0.84	mg/L
GS-AP-MW-21V	2/9/2021 8:48	Depth to Water Detail	175.75	ft
GS-AP-MW-21V	2/9/2021 8:48	Oxidation Reduction Potention	-190.53	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	2/9/2021 8:48	pH	7.78	SU
GS-AP-MW-21V	2/9/2021 8:48	Temperature	16.62	C
GS-AP-MW-21V	2/9/2021 8:48	Turbidity	0.83	NTU
GS-AP-MW-21V	2/9/2021 8:53	Conductivity	4551.74	uS/cm
GS-AP-MW-21V	2/9/2021 8:53	DO	0.86	mg/L
GS-AP-MW-21V	2/9/2021 8:53	Depth to Water Detail	176.42	ft
GS-AP-MW-21V	2/9/2021 8:53	Oxidation Reduction Potention	-182.55	mv
GS-AP-MW-21V	2/9/2021 8:53	pH	7.77	SU
GS-AP-MW-21V	2/9/2021 8:53	Temperature	16.66	C
GS-AP-MW-21V	2/9/2021 8:53	Turbidity	1.07	NTU
GS-AP-MW-21V	2/9/2021 8:58	Conductivity	4540.19	uS/cm
GS-AP-MW-21V	2/9/2021 8:58	DO	0.88	mg/L
GS-AP-MW-21V	2/9/2021 8:58	Depth to Water Detail	177.04	ft
GS-AP-MW-21V	2/9/2021 8:58	Oxidation Reduction Potention	-173.53	mv
GS-AP-MW-21V	2/9/2021 8:58	pH	7.77	SU
GS-AP-MW-21V	2/9/2021 8:58	Temperature	16.54	C
GS-AP-MW-21V	2/9/2021 8:58	Turbidity	0.98	NTU
GS-AP-MW-21V	2/9/2021 9:03	Conductivity	4531.23	uS/cm
GS-AP-MW-21V	2/9/2021 9:03	DO	0.94	mg/L
GS-AP-MW-21V	2/9/2021 9:03	Depth to Water Detail	177.75	ft
GS-AP-MW-21V	2/9/2021 9:03	Oxidation Reduction Potention	-165.32	mv
GS-AP-MW-21V	2/9/2021 9:03	pH	7.77	SU
GS-AP-MW-21V	2/9/2021 9:03	Temperature	16.48	C
GS-AP-MW-21V	2/9/2021 9:03	Turbidity	1.42	NTU
GS-AP-MW-21V	2/9/2021 9:08	Conductivity	4527.78	uS/cm
GS-AP-MW-21V	2/9/2021 9:08	DO	0.97	mg/L
GS-AP-MW-21V	2/9/2021 9:08	Depth to Water Detail	178.34	ft
GS-AP-MW-21V	2/9/2021 9:08	Oxidation Reduction Potention	-158.42	mv
GS-AP-MW-21V	2/9/2021 9:08	pH	7.77	SU
GS-AP-MW-21V	2/9/2021 9:08	Temperature	16.51	C
GS-AP-MW-21V	2/9/2021 9:08	Turbidity	1.25	NTU
GS-AP-MW-21V	2/9/2021 9:13	Conductivity	4523.42	uS/cm
GS-AP-MW-21V	2/9/2021 9:13	DO	1.01	mg/L
GS-AP-MW-21V	2/9/2021 9:13	Depth to Water Detail	179.08	ft
GS-AP-MW-21V	2/9/2021 9:13	Oxidation Reduction Potention	-153.87	mv
GS-AP-MW-21V	2/9/2021 9:13	pH	7.77	SU
GS-AP-MW-21V	2/9/2021 9:13	Temperature	16.57	C
GS-AP-MW-21V	2/9/2021 9:13	Turbidity	1.12	NTU
GS-AP-MW-21V	2/9/2021 9:18	Conductivity	4514.67	uS/cm
GS-AP-MW-21V	2/9/2021 9:18	DO	1.04	mg/L
GS-AP-MW-21V	2/9/2021 9:18	Depth to Water Detail	179.72	ft
GS-AP-MW-21V	2/9/2021 9:18	Oxidation Reduction Potention	-151.42	mv
GS-AP-MW-21V	2/9/2021 9:18	pH	7.77	SU
GS-AP-MW-21V	2/9/2021 9:18	Temperature	16.6	C
GS-AP-MW-21V	2/9/2021 9:18	Turbidity	1.02	NTU
GS-AP-MW-21V	2/9/2021 9:23	Conductivity	4507.09	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	2/9/2021 9:23	DO	1.03	mg/L
GS-AP-MW-21V	2/9/2021 9:23	Depth to Water Detail	180.29	ft
GS-AP-MW-21V	2/9/2021 9:23	Oxidation Reduction Potention	-156.99	mv
GS-AP-MW-21V	2/9/2021 9:23	pH	7.78	SU
GS-AP-MW-21V	2/9/2021 9:23	Temperature	16.6	C
GS-AP-MW-21V	2/9/2021 9:23	Turbidity	0.8	NTU
GS-AP-MW-21V	2/9/2021 9:28	Conductivity	4497.1	uS/cm
GS-AP-MW-21V	2/9/2021 9:28	DO	1.07	mg/L
GS-AP-MW-21V	2/9/2021 9:28	Depth to Water Detail	180.89	ft
GS-AP-MW-21V	2/9/2021 9:28	Oxidation Reduction Potention	-158.91	mv
GS-AP-MW-21V	2/9/2021 9:28	pH	7.78	SU
GS-AP-MW-21V	2/9/2021 9:28	Temperature	16.68	C
GS-AP-MW-21V	2/9/2021 9:28	Turbidity	0.78	NTU
GS-AP-MW-21V	2/9/2021 9:33	Conductivity	4480.3	uS/cm
GS-AP-MW-21V	2/9/2021 9:33	DO	1.1	mg/L
GS-AP-MW-21V	2/9/2021 9:33	Depth to Water Detail	181.54	ft
GS-AP-MW-21V	2/9/2021 9:33	Oxidation Reduction Potention	-155.98	mv
GS-AP-MW-21V	2/9/2021 9:33	pH	7.79	SU
GS-AP-MW-21V	2/9/2021 9:33	Temperature	16.72	C
GS-AP-MW-21V	2/9/2021 9:33	Turbidity	1.04	NTU
GS-AP-MW-21V	2/9/2021 9:38	Conductivity	4468.46	uS/cm
GS-AP-MW-21V	2/9/2021 9:38	DO	1.13	mg/L
GS-AP-MW-21V	2/9/2021 9:38	Depth to Water Detail	182.1	ft
GS-AP-MW-21V	2/9/2021 9:38	Oxidation Reduction Potention	-152.87	mv
GS-AP-MW-21V	2/9/2021 9:38	pH	7.79	SU
GS-AP-MW-21V	2/9/2021 9:38	Temperature	16.64	C
GS-AP-MW-21V	2/9/2021 9:38	Turbidity	0.83	NTU
GS-AP-MW-21V	2/9/2021 9:43	Conductivity	4447.86	uS/cm
GS-AP-MW-21V	2/9/2021 9:43	DO	1.13	mg/L
GS-AP-MW-21V	2/9/2021 9:43	Depth to Water Detail	182.65	ft
GS-AP-MW-21V	2/9/2021 9:43	Oxidation Reduction Potention	-151.12	mv
GS-AP-MW-21V	2/9/2021 9:43	pH	7.79	SU
GS-AP-MW-21V	2/9/2021 9:43	Temperature	16.62	C
GS-AP-MW-21V	2/9/2021 9:43	Turbidity	0.71	NTU
GS-AP-MW-21V	2/9/2021 9:48	Conductivity	4422.87	uS/cm
GS-AP-MW-21V	2/9/2021 9:48	DO	1.14	mg/L
GS-AP-MW-21V	2/9/2021 9:48	Depth to Water Detail	183.08	ft
GS-AP-MW-21V	2/9/2021 9:48	Oxidation Reduction Potention	-150.27	mv
GS-AP-MW-21V	2/9/2021 9:48	pH	7.8	SU
GS-AP-MW-21V	2/9/2021 9:48	Temperature	16.69	C
GS-AP-MW-21V	2/9/2021 9:48	Turbidity	0.86	NTU
GS-AP-MW-21V	2/9/2021 9:53	Conductivity	4390.02	uS/cm
GS-AP-MW-21V	2/9/2021 9:53	DO	1.19	mg/L
GS-AP-MW-21V	2/9/2021 9:53	Depth to Water Detail	183.6	ft
GS-AP-MW-21V	2/9/2021 9:53	Oxidation Reduction Potention	-147.92	mv
GS-AP-MW-21V	2/9/2021 9:53	pH	7.8	SU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	2/9/2021 9:53	Temperature	16.65	C
GS-AP-MW-21V	2/9/2021 9:53	Turbidity	0.76	NTU
GS-AP-MW-21V	2/9/2021 9:58	Conductivity	4353.45	uS/cm
GS-AP-MW-21V	2/9/2021 9:58	DO	1.18	mg/L
GS-AP-MW-21V	2/9/2021 9:58	Depth to Water Detail	184.16	ft
GS-AP-MW-21V	2/9/2021 9:58	Oxidation Reduction Potention	-146.33	mv
GS-AP-MW-21V	2/9/2021 9:58	pH	7.8	SU
GS-AP-MW-21V	2/9/2021 9:58	Temperature	17.11	C
GS-AP-MW-21V	2/9/2021 9:58	Turbidity	0.82	NTU
GS-AP-MW-21V	2/9/2021 10:03	Conductivity	4320.34	uS/cm
GS-AP-MW-21V	2/9/2021 10:03	DO	1.22	mg/L
GS-AP-MW-21V	2/9/2021 10:03	Depth to Water Detail	184.65	ft
GS-AP-MW-21V	2/9/2021 10:03	Oxidation Reduction Potention	-145.17	mv
GS-AP-MW-21V	2/9/2021 10:03	pH	7.8	SU
GS-AP-MW-21V	2/9/2021 10:03	Temperature	17.43	C
GS-AP-MW-21V	2/9/2021 10:03	Turbidity	0.81	NTU
GS-AP-MW-21V	2/9/2021 10:08	Conductivity	4268.82	uS/cm
GS-AP-MW-21V	2/9/2021 10:08	DO	1.25	mg/L
GS-AP-MW-21V	2/9/2021 10:08	Depth to Water Detail	185.09	ft
GS-AP-MW-21V	2/9/2021 10:08	Oxidation Reduction Potention	-143.68	mv
GS-AP-MW-21V	2/9/2021 10:08	pH	7.81	SU
GS-AP-MW-21V	2/9/2021 10:08	Temperature	17.6	C
GS-AP-MW-21V	2/9/2021 10:08	Turbidity	0.84	NTU
GS-AP-MW-21V	2/9/2021 10:13	Conductivity	4219.96	uS/cm
GS-AP-MW-21V	2/9/2021 10:13	DO	1.23	mg/L
GS-AP-MW-21V	2/9/2021 10:13	Depth to Water Detail	185.51	ft
GS-AP-MW-21V	2/9/2021 10:13	Oxidation Reduction Potention	-141.43	mv
GS-AP-MW-21V	2/9/2021 10:13	pH	7.81	SU
GS-AP-MW-21V	2/9/2021 10:13	Temperature	17.64	C
GS-AP-MW-21V	2/9/2021 10:13	Turbidity	0.8	NTU
GS-AP-MW-21V	2/9/2021 10:18	Conductivity	4194.35	uS/cm
GS-AP-MW-21V	2/9/2021 10:18	DO	1.24	mg/L
GS-AP-MW-21V	2/9/2021 10:18	Depth to Water Detail	185.94	ft
GS-AP-MW-21V	2/9/2021 10:18	Oxidation Reduction Potention	-141.51	mv
GS-AP-MW-21V	2/9/2021 10:18	pH	7.81	SU
GS-AP-MW-21V	2/9/2021 10:18	Temperature	17.67	C
GS-AP-MW-21V	2/9/2021 10:18	Turbidity	0.65	NTU
GS-AP-MW-21V	2/9/2021 10:23	Conductivity	4144.58	uS/cm
GS-AP-MW-21V	2/9/2021 10:23	DO	1.27	mg/L
GS-AP-MW-21V	2/9/2021 10:23	Depth to Water Detail	186.32	ft
GS-AP-MW-21V	2/9/2021 10:23	Oxidation Reduction Potention	-140.53	mv
GS-AP-MW-21V	2/9/2021 10:23	pH	7.82	SU
GS-AP-MW-21V	2/9/2021 10:23	Temperature	17.45	C
GS-AP-MW-21V	2/9/2021 10:23	Turbidity	0.55	NTU
GS-AP-MW-21V	2/9/2021 10:28	Conductivity	4090.33	uS/cm
GS-AP-MW-21V	2/9/2021 10:28	DO	1.3	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	2/9/2021 10:28	Depth to Water Detail	186.79	ft
GS-AP-MW-21V	2/9/2021 10:28	Oxidation Reduction Potention	-140.37	mv
GS-AP-MW-21V	2/9/2021 10:28	pH	7.83	SU
GS-AP-MW-21V	2/9/2021 10:28	Temperature	17.27	C
GS-AP-MW-21V	2/9/2021 10:28	Turbidity	0.62	NTU
GS-AP-MW-21V	2/9/2021 10:33	Conductivity	4063	uS/cm
GS-AP-MW-21V	2/9/2021 10:33	DO	1.28	mg/L
GS-AP-MW-21V	2/9/2021 10:33	Depth to Water Detail	187.11	ft
GS-AP-MW-21V	2/9/2021 10:33	Oxidation Reduction Potention	-139.76	mv
GS-AP-MW-21V	2/9/2021 10:33	pH	7.84	SU
GS-AP-MW-21V	2/9/2021 10:33	Temperature	17.41	C
GS-AP-MW-21V	2/9/2021 10:33	Turbidity	0.68	NTU
GS-AP-MW-21V	2/9/2021 10:38	Conductivity	4000.81	uS/cm
GS-AP-MW-21V	2/9/2021 10:38	DO	1.28	mg/L
GS-AP-MW-21V	2/9/2021 10:38	Depth to Water Detail	187.51	ft
GS-AP-MW-21V	2/9/2021 10:38	Oxidation Reduction Potention	-139.94	mv
GS-AP-MW-21V	2/9/2021 10:38	pH	7.84	SU
GS-AP-MW-21V	2/9/2021 10:38	Temperature	17.35	C
GS-AP-MW-21V	2/9/2021 10:38	Turbidity	0.48	NTU
GS-AP-MW-21V	2/9/2021 10:43	Conductivity	3942.46	uS/cm
GS-AP-MW-21V	2/9/2021 10:43	DO	1.3	mg/L
GS-AP-MW-21V	2/9/2021 10:43	Depth to Water Detail	187.94	ft
GS-AP-MW-21V	2/9/2021 10:43	Oxidation Reduction Potention	-140.06	mv
GS-AP-MW-21V	2/9/2021 10:43	pH	7.85	SU
GS-AP-MW-21V	2/9/2021 10:43	Temperature	17.21	C
GS-AP-MW-21V	2/9/2021 10:43	Turbidity	0.68	NTU
GS-AP-MW-21V	2/9/2021 10:48	Conductivity	3914.66	uS/cm
GS-AP-MW-21V	2/9/2021 10:48	DO	1.32	mg/L
GS-AP-MW-21V	2/9/2021 10:48	Depth to Water Detail	188.21	ft
GS-AP-MW-21V	2/9/2021 10:48	Oxidation Reduction Potention	-139.39	mv
GS-AP-MW-21V	2/9/2021 10:48	pH	7.86	SU
GS-AP-MW-21V	2/9/2021 10:48	Temperature	17.33	C
GS-AP-MW-21V	2/9/2021 10:48	Turbidity	0.97	NTU
GS-AP-MW-21V	2/9/2021 10:53	Conductivity	3877.85	uS/cm
GS-AP-MW-21V	2/9/2021 10:53	DO	1.37	mg/L
GS-AP-MW-21V	2/9/2021 10:53	Depth to Water Detail	188.49	ft
GS-AP-MW-21V	2/9/2021 10:53	Oxidation Reduction Potention	-137.55	mv
GS-AP-MW-21V	2/9/2021 10:53	pH	7.86	SU
GS-AP-MW-21V	2/9/2021 10:53	Temperature	17.35	C
GS-AP-MW-21V	2/9/2021 10:53	Turbidity	0.81	NTU
GS-AP-MW-21V	2/9/2021 10:58	Conductivity	3861.68	uS/cm
GS-AP-MW-21V	2/9/2021 10:58	DO	1.38	mg/L
GS-AP-MW-21V	2/9/2021 10:58	Depth to Water Detail	188.62	ft
GS-AP-MW-21V	2/9/2021 10:58	Oxidation Reduction Potention	-134.94	mv
GS-AP-MW-21V	2/9/2021 10:58	pH	7.86	SU
GS-AP-MW-21V	2/9/2021 10:58	Temperature	17.47	C

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	2/9/2021 10:58	Turbidity	0.77	NTU
GS-AP-MW-21V	2/9/2021 11:03	Conductivity	3839.85	uS/cm
GS-AP-MW-21V	2/9/2021 11:03	DO	1.38	mg/L
GS-AP-MW-21V	2/9/2021 11:03	Depth to Water Detail	188.8	ft
GS-AP-MW-21V	2/9/2021 11:03	Oxidation Reduction Potention	-132.52	mv
GS-AP-MW-21V	2/9/2021 11:03	pH	7.86	SU
GS-AP-MW-21V	2/9/2021 11:03	Temperature	17.63	C
GS-AP-MW-21V	2/9/2021 11:03	Turbidity	0.75	NTU
GS-AP-MW-21V	2/9/2021 11:08	Conductivity	3822.52	uS/cm
GS-AP-MW-21V	2/9/2021 11:08	DO	1.37	mg/L
GS-AP-MW-21V	2/9/2021 11:08	Depth to Water Detail	188.96	ft
GS-AP-MW-21V	2/9/2021 11:08	Oxidation Reduction Potention	-130.19	mv
GS-AP-MW-21V	2/9/2021 11:08	pH	7.86	SU
GS-AP-MW-21V	2/9/2021 11:08	Temperature	17.45	C
GS-AP-MW-21V	2/9/2021 11:08	Turbidity	0.89	NTU
GS-AP-MW-21V	2/9/2021 11:13	Conductivity	3809.39	uS/cm
GS-AP-MW-21V	2/9/2021 11:13	DO	1.39	mg/L
GS-AP-MW-21V	2/9/2021 11:13	Depth to Water Detail	189.12	ft
GS-AP-MW-21V	2/9/2021 11:13	Oxidation Reduction Potention	-128.41	mv
GS-AP-MW-21V	2/9/2021 11:13	pH	7.87	SU
GS-AP-MW-21V	2/9/2021 11:13	Temperature	17.66	C
GS-AP-MW-21V	2/9/2021 11:13	Turbidity	0.87	NTU
GS-AP-MW-21V	2/9/2021 11:18	Conductivity	3767.05	uS/cm
GS-AP-MW-21V	2/9/2021 11:18	DO	1.42	mg/L
GS-AP-MW-21V	2/9/2021 11:18	Depth to Water Detail	189.24	ft
GS-AP-MW-21V	2/9/2021 11:18	Oxidation Reduction Potention	-127.2	mv
GS-AP-MW-21V	2/9/2021 11:18	pH	7.87	SU
GS-AP-MW-21V	2/9/2021 11:18	Temperature	17.66	C
GS-AP-MW-21V	2/9/2021 11:18	Turbidity	0.64	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-25HA	2/10/2021 10:51	Conductivity	1468.29	uS/cm
GS-AP-MW-25HA	2/10/2021 10:51	DO	1.2	mg/L
GS-AP-MW-25HA	2/10/2021 10:51	Depth to Water Detail	176.4	ft
GS-AP-MW-25HA	2/10/2021 10:51	Oxidation Reduction Potention	-154.7	mv
GS-AP-MW-25HA	2/10/2021 10:51	pH	8.43	SU
GS-AP-MW-25HA	2/10/2021 10:51	Temperature	16.42	C
GS-AP-MW-25HA	2/10/2021 10:51	Turbidity	2.83	NTU
GS-AP-MW-25HA	2/10/2021 10:56	Conductivity	1472.29	uS/cm
GS-AP-MW-25HA	2/10/2021 10:56	DO	0.79	mg/L
GS-AP-MW-25HA	2/10/2021 10:56	Depth to Water Detail	176.64	ft
GS-AP-MW-25HA	2/10/2021 10:56	Oxidation Reduction Potention	-192.61	mv
GS-AP-MW-25HA	2/10/2021 10:56	pH	8.77	SU
GS-AP-MW-25HA	2/10/2021 10:56	Temperature	16.58	C
GS-AP-MW-25HA	2/10/2021 10:56	Turbidity	1.5	NTU
GS-AP-MW-25HA	2/10/2021 11:01	Conductivity	1479.38	uS/cm
GS-AP-MW-25HA	2/10/2021 11:01	DO	0.67	mg/L
GS-AP-MW-25HA	2/10/2021 11:01	Depth to Water Detail	176.8	ft
GS-AP-MW-25HA	2/10/2021 11:01	Oxidation Reduction Potention	-203.47	mv
GS-AP-MW-25HA	2/10/2021 11:01	pH	8.8	SU
GS-AP-MW-25HA	2/10/2021 11:01	Temperature	16.65	C
GS-AP-MW-25HA	2/10/2021 11:01	Turbidity	1.47	NTU
GS-AP-MW-25HA	2/10/2021 11:06	Conductivity	1505.87	uS/cm
GS-AP-MW-25HA	2/10/2021 11:06	DO	0.61	mg/L
GS-AP-MW-25HA	2/10/2021 11:06	Depth to Water Detail	177.05	ft
GS-AP-MW-25HA	2/10/2021 11:06	Oxidation Reduction Potention	-211.47	mv
GS-AP-MW-25HA	2/10/2021 11:06	pH	8.8	SU
GS-AP-MW-25HA	2/10/2021 11:06	Temperature	16.78	C
GS-AP-MW-25HA	2/10/2021 11:06	Turbidity	1.5	NTU
GS-AP-MW-25HA	2/10/2021 11:11	Conductivity	1526.57	uS/cm
GS-AP-MW-25HA	2/10/2021 11:11	DO	0.42	mg/L
GS-AP-MW-25HA	2/10/2021 11:11	Depth to Water Detail	177.24	ft
GS-AP-MW-25HA	2/10/2021 11:11	Oxidation Reduction Potention	-215.21	mv
GS-AP-MW-25HA	2/10/2021 11:11	pH	8.78	SU
GS-AP-MW-25HA	2/10/2021 11:11	Temperature	16.88	C
GS-AP-MW-25HA	2/10/2021 11:11	Turbidity	1.46	NTU
GS-AP-MW-25HA	2/10/2021 11:16	Conductivity	1559	uS/cm
GS-AP-MW-25HA	2/10/2021 11:16	DO	0.34	mg/L
GS-AP-MW-25HA	2/10/2021 11:16	Depth to Water Detail	177.32	ft
GS-AP-MW-25HA	2/10/2021 11:16	Oxidation Reduction Potention	-217.18	mv
GS-AP-MW-25HA	2/10/2021 11:16	pH	8.77	SU
GS-AP-MW-25HA	2/10/2021 11:16	Temperature	16.98	C
GS-AP-MW-25HA	2/10/2021 11:16	Turbidity	1.66	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-32H	2/10/2021 15:03	Conductivity	632.69	uS/cm
GS-AP-MW-32H	2/10/2021 15:03	DO	1.38	mg/L
GS-AP-MW-32H	2/10/2021 15:03	Depth to Water Detail	247.96	ft
GS-AP-MW-32H	2/10/2021 15:03	Oxidation Reduction Potention	-146.64	mv
GS-AP-MW-32H	2/10/2021 15:03	pH	7.77	SU
GS-AP-MW-32H	2/10/2021 15:03	Temperature	17.99	C
GS-AP-MW-32H	2/10/2021 15:03	Turbidity	1.44	NTU
GS-AP-MW-32H	2/10/2021 15:21	Conductivity	662.54	uS/cm
GS-AP-MW-32H	2/10/2021 15:21	DO	0.7	mg/L
GS-AP-MW-32H	2/10/2021 15:21	Depth to Water Detail	249.49	ft
GS-AP-MW-32H	2/10/2021 15:21	Oxidation Reduction Potention	-145.3	mv
GS-AP-MW-32H	2/10/2021 15:21	pH	8.03	SU
GS-AP-MW-32H	2/10/2021 15:21	Temperature	17.65	C
GS-AP-MW-32H	2/10/2021 15:21	Turbidity	1.46	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-18	2/10/2021 12:50	Conductivity	2640.58	uS/cm
GS-AP-PZ-18	2/10/2021 12:50	DO	0.26	mg/L
GS-AP-PZ-18	2/10/2021 12:50	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 12:50	Oxidation Reduction Potention	-131.95	mv
GS-AP-PZ-18	2/10/2021 12:50	pH	6.82	SU
GS-AP-PZ-18	2/10/2021 12:50	Temperature	17.43	C
GS-AP-PZ-18	2/10/2021 12:50	Turbidity	1.42	NTU
GS-AP-PZ-18	2/10/2021 12:55	Conductivity	2130.82	uS/cm
GS-AP-PZ-18	2/10/2021 12:55	DO	0.2	mg/L
GS-AP-PZ-18	2/10/2021 12:55	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 12:55	Oxidation Reduction Potention	-110.97	mv
GS-AP-PZ-18	2/10/2021 12:55	pH	6.66	SU
GS-AP-PZ-18	2/10/2021 12:55	Temperature	17.64	C
GS-AP-PZ-18	2/10/2021 12:55	Turbidity	1.34	NTU
GS-AP-PZ-18	2/10/2021 13:00	Conductivity	1894.31	uS/cm
GS-AP-PZ-18	2/10/2021 13:00	DO	0.18	mg/L
GS-AP-PZ-18	2/10/2021 13:00	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:00	Oxidation Reduction Potention	-102.57	mv
GS-AP-PZ-18	2/10/2021 13:00	pH	6.62	SU
GS-AP-PZ-18	2/10/2021 13:00	Temperature	17.6	C
GS-AP-PZ-18	2/10/2021 13:00	Turbidity	1.05	NTU
GS-AP-PZ-18	2/10/2021 13:05	Conductivity	1754.09	uS/cm
GS-AP-PZ-18	2/10/2021 13:05	DO	0.16	mg/L
GS-AP-PZ-18	2/10/2021 13:05	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:05	Oxidation Reduction Potention	-93.19	mv
GS-AP-PZ-18	2/10/2021 13:05	pH	6.57	SU
GS-AP-PZ-18	2/10/2021 13:05	Temperature	17.67	C
GS-AP-PZ-18	2/10/2021 13:05	Turbidity	1.09	NTU
GS-AP-PZ-18	2/10/2021 13:10	Conductivity	1666.05	uS/cm
GS-AP-PZ-18	2/10/2021 13:10	DO	0.16	mg/L
GS-AP-PZ-18	2/10/2021 13:10	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:10	Oxidation Reduction Potention	-87.89	mv
GS-AP-PZ-18	2/10/2021 13:10	pH	6.53	SU
GS-AP-PZ-18	2/10/2021 13:10	Temperature	17.73	C
GS-AP-PZ-18	2/10/2021 13:10	Turbidity	1.19	NTU
GS-AP-PZ-18	2/10/2021 13:15	Conductivity	1614.85	uS/cm
GS-AP-PZ-18	2/10/2021 13:15	DO	0.14	mg/L
GS-AP-PZ-18	2/10/2021 13:15	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:15	Oxidation Reduction Potention	-86.78	mv
GS-AP-PZ-18	2/10/2021 13:15	pH	6.54	SU
GS-AP-PZ-18	2/10/2021 13:15	Temperature	17.75	C
GS-AP-PZ-18	2/10/2021 13:15	Turbidity	0.98	NTU
GS-AP-PZ-18	2/10/2021 13:20	Conductivity	1554.22	uS/cm
GS-AP-PZ-18	2/10/2021 13:20	DO	0.14	mg/L
GS-AP-PZ-18	2/10/2021 13:20	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:20	Oxidation Reduction Potention	-89.42	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-18	2/10/2021 13:20	pH	6.58	SU
GS-AP-PZ-18	2/10/2021 13:20	Temperature	17.77	C
GS-AP-PZ-18	2/10/2021 13:20	Turbidity	1.52	NTU
GS-AP-PZ-18	2/10/2021 13:25	Conductivity	1510.92	uS/cm
GS-AP-PZ-18	2/10/2021 13:25	DO	0.14	mg/L
GS-AP-PZ-18	2/10/2021 13:25	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:25	Oxidation Reduction Potention	-92.18	mv
GS-AP-PZ-18	2/10/2021 13:25	pH	6.63	SU
GS-AP-PZ-18	2/10/2021 13:25	Temperature	17.84	C
GS-AP-PZ-18	2/10/2021 13:25	Turbidity	1.65	NTU
GS-AP-PZ-18	2/10/2021 13:30	Conductivity	1456.31	uS/cm
GS-AP-PZ-18	2/10/2021 13:30	DO	0.14	mg/L
GS-AP-PZ-18	2/10/2021 13:30	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:30	Oxidation Reduction Potention	-97.52	mv
GS-AP-PZ-18	2/10/2021 13:30	pH	6.68	SU
GS-AP-PZ-18	2/10/2021 13:30	Temperature	17.82	C
GS-AP-PZ-18	2/10/2021 13:30	Turbidity	1.44	NTU
GS-AP-PZ-18	2/10/2021 13:35	Conductivity	1406.43	uS/cm
GS-AP-PZ-18	2/10/2021 13:35	DO	0.13	mg/L
GS-AP-PZ-18	2/10/2021 13:35	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:35	Oxidation Reduction Potention	-104.08	mv
GS-AP-PZ-18	2/10/2021 13:35	pH	6.76	SU
GS-AP-PZ-18	2/10/2021 13:35	Temperature	17.8	C
GS-AP-PZ-18	2/10/2021 13:35	Turbidity	1.08	NTU
GS-AP-PZ-18	2/10/2021 13:40	Conductivity	1362.18	uS/cm
GS-AP-PZ-18	2/10/2021 13:40	DO	0.13	mg/L
GS-AP-PZ-18	2/10/2021 13:40	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:40	Oxidation Reduction Potention	-111.63	mv
GS-AP-PZ-18	2/10/2021 13:40	pH	6.81	SU
GS-AP-PZ-18	2/10/2021 13:40	Temperature	17.93	C
GS-AP-PZ-18	2/10/2021 13:40	Turbidity	1.14	NTU
GS-AP-PZ-18	2/10/2021 13:45	Conductivity	1328.43	uS/cm
GS-AP-PZ-18	2/10/2021 13:45	DO	0.14	mg/L
GS-AP-PZ-18	2/10/2021 13:45	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:45	Oxidation Reduction Potention	-117.05	mv
GS-AP-PZ-18	2/10/2021 13:45	pH	6.86	SU
GS-AP-PZ-18	2/10/2021 13:45	Temperature	17.98	C
GS-AP-PZ-18	2/10/2021 13:45	Turbidity	1.37	NTU
GS-AP-PZ-18	2/10/2021 13:50	Conductivity	1316.34	uS/cm
GS-AP-PZ-18	2/10/2021 13:50	DO	0.14	mg/L
GS-AP-PZ-18	2/10/2021 13:50	Depth to Water Detail	112.79	ft
GS-AP-PZ-18	2/10/2021 13:50	Oxidation Reduction Potention	-120.66	mv
GS-AP-PZ-18	2/10/2021 13:50	pH	6.9	SU
GS-AP-PZ-18	2/10/2021 13:50	Temperature	17.76	C
GS-AP-PZ-18	2/10/2021 13:50	Turbidity	1.22	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-41HS	2/8/2021 11:42	Conductivity	500.64	uS/cm
GS-AP-MW-41HS	2/8/2021 11:42	DO	4.18	mg/L
GS-AP-MW-41HS	2/8/2021 11:42	Depth to Water Detail	22.79	ft
GS-AP-MW-41HS	2/8/2021 11:42	Oxidation Reduction Potention	9.58	mv
GS-AP-MW-41HS	2/8/2021 11:42	pH	7.02	SU
GS-AP-MW-41HS	2/8/2021 11:42	Temperature	16.15	C
GS-AP-MW-41HS	2/8/2021 11:42	Turbidity	50.1	NTU
GS-AP-MW-41HS	2/8/2021 11:47	Conductivity	507.04	uS/cm
GS-AP-MW-41HS	2/8/2021 11:47	DO	3.54	mg/L
GS-AP-MW-41HS	2/8/2021 11:47	Depth to Water Detail	23.09	ft
GS-AP-MW-41HS	2/8/2021 11:47	Oxidation Reduction Potention	11.88	mv
GS-AP-MW-41HS	2/8/2021 11:47	pH	6.94	SU
GS-AP-MW-41HS	2/8/2021 11:47	Temperature	16.15	C
GS-AP-MW-41HS	2/8/2021 11:47	Turbidity	35.2	NTU
GS-AP-MW-41HS	2/8/2021 11:52	Conductivity	509.77	uS/cm
GS-AP-MW-41HS	2/8/2021 11:52	DO	2.94	mg/L
GS-AP-MW-41HS	2/8/2021 11:52	Depth to Water Detail	23.41	ft
GS-AP-MW-41HS	2/8/2021 11:52	Oxidation Reduction Potention	0.33	mv
GS-AP-MW-41HS	2/8/2021 11:52	pH	6.91	SU
GS-AP-MW-41HS	2/8/2021 11:52	Temperature	16.28	C
GS-AP-MW-41HS	2/8/2021 11:52	Turbidity	7.13	NTU
GS-AP-MW-41HS	2/8/2021 11:57	Conductivity	506.75	uS/cm
GS-AP-MW-41HS	2/8/2021 11:57	DO	2.77	mg/L
GS-AP-MW-41HS	2/8/2021 11:57	Depth to Water Detail	23.66	ft
GS-AP-MW-41HS	2/8/2021 11:57	Oxidation Reduction Potention	-2.27	mv
GS-AP-MW-41HS	2/8/2021 11:57	pH	6.9	SU
GS-AP-MW-41HS	2/8/2021 11:57	Temperature	16.18	C
GS-AP-MW-41HS	2/8/2021 11:57	Turbidity	4.13	NTU
GS-AP-MW-41HS	2/8/2021 12:02	Conductivity	506.59	uS/cm
GS-AP-MW-41HS	2/8/2021 12:02	DO	2.54	mg/L
GS-AP-MW-41HS	2/8/2021 12:02	Depth to Water Detail	23.96	ft
GS-AP-MW-41HS	2/8/2021 12:02	Oxidation Reduction Potention	-7.72	mv
GS-AP-MW-41HS	2/8/2021 12:02	pH	6.88	SU
GS-AP-MW-41HS	2/8/2021 12:02	Temperature	16.21	C
GS-AP-MW-41HS	2/8/2021 12:02	Turbidity	2.23	NTU
GS-AP-MW-41HS	2/8/2021 12:07	Conductivity	506.92	uS/cm
GS-AP-MW-41HS	2/8/2021 12:07	DO	2.28	mg/L
GS-AP-MW-41HS	2/8/2021 12:07	Depth to Water Detail	24.14	ft
GS-AP-MW-41HS	2/8/2021 12:07	Oxidation Reduction Potention	-10.85	mv
GS-AP-MW-41HS	2/8/2021 12:07	pH	6.87	SU
GS-AP-MW-41HS	2/8/2021 12:07	Temperature	16.18	C
GS-AP-MW-41HS	2/8/2021 12:07	Turbidity	1.76	NTU
GS-AP-MW-41HS	2/8/2021 12:12	Conductivity	506.33	uS/cm
GS-AP-MW-41HS	2/8/2021 12:12	DO	1.99	mg/L
GS-AP-MW-41HS	2/8/2021 12:12	Depth to Water Detail	24.41	ft
GS-AP-MW-41HS	2/8/2021 12:12	Oxidation Reduction Potention	-8.54	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-41HS	2/8/2021 12:12	pH	6.84	SU
GS-AP-MW-41HS	2/8/2021 12:12	Temperature	16.26	C
GS-AP-MW-41HS	2/8/2021 12:12	Turbidity	1.85	NTU
GS-AP-MW-41HS	2/8/2021 12:17	Conductivity	506.34	uS/cm
GS-AP-MW-41HS	2/8/2021 12:17	DO	1.77	mg/L
GS-AP-MW-41HS	2/8/2021 12:17	Depth to Water Detail	24.53	ft
GS-AP-MW-41HS	2/8/2021 12:17	Oxidation Reduction Potention	-11.56	mv
GS-AP-MW-41HS	2/8/2021 12:17	pH	6.82	SU
GS-AP-MW-41HS	2/8/2021 12:17	Temperature	16.27	C
GS-AP-MW-41HS	2/8/2021 12:17	Turbidity	1.83	NTU
GS-AP-MW-41HS	2/8/2021 12:22	Conductivity	506.48	uS/cm
GS-AP-MW-41HS	2/8/2021 12:22	DO	1.7	mg/L
GS-AP-MW-41HS	2/8/2021 12:22	Depth to Water Detail	24.62	ft
GS-AP-MW-41HS	2/8/2021 12:22	Oxidation Reduction Potention	-11.62	mv
GS-AP-MW-41HS	2/8/2021 12:22	pH	6.79	SU
GS-AP-MW-41HS	2/8/2021 12:22	Temperature	16.28	C
GS-AP-MW-41HS	2/8/2021 12:22	Turbidity	0.56	NTU
GS-AP-MW-41HS	2/8/2021 12:27	Conductivity	507.42	uS/cm
GS-AP-MW-41HS	2/8/2021 12:27	DO	1.67	mg/L
GS-AP-MW-41HS	2/8/2021 12:27	Depth to Water Detail	24.78	ft
GS-AP-MW-41HS	2/8/2021 12:27	Oxidation Reduction Potention	-12.4	mv
GS-AP-MW-41HS	2/8/2021 12:27	pH	6.77	SU
GS-AP-MW-41HS	2/8/2021 12:27	Temperature	16.2	C
GS-AP-MW-41HS	2/8/2021 12:27	Turbidity	0.49	NTU

**Alabama Power Company
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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-41HD	2/8/2021 13:38	Conductivity	516.03	uS/cm
GS-AP-MW-41HD	2/8/2021 13:38	DO	0.27	mg/L
GS-AP-MW-41HD	2/8/2021 13:38	Depth to Water Detail	4.09	ft
GS-AP-MW-41HD	2/8/2021 13:38	Oxidation Reduction Potention	-23.02	mv
GS-AP-MW-41HD	2/8/2021 13:38	pH	7.29	SU
GS-AP-MW-41HD	2/8/2021 13:38	Temperature	14.98	C
GS-AP-MW-41HD	2/8/2021 13:38	Turbidity	0.27	NTU
GS-AP-MW-41HD	2/8/2021 13:43	Conductivity	514.45	uS/cm
GS-AP-MW-41HD	2/8/2021 13:43	DO	0.23	mg/L
GS-AP-MW-41HD	2/8/2021 13:43	Depth to Water Detail	4.79	ft
GS-AP-MW-41HD	2/8/2021 13:43	Oxidation Reduction Potention	-22.11	mv
GS-AP-MW-41HD	2/8/2021 13:43	pH	7.32	SU
GS-AP-MW-41HD	2/8/2021 13:43	Temperature	15.06	C
GS-AP-MW-41HD	2/8/2021 13:43	Turbidity	0.08	NTU
GS-AP-MW-41HD	2/8/2021 13:48	Conductivity	514.2	uS/cm
GS-AP-MW-41HD	2/8/2021 13:48	DO	0.24	mg/L
GS-AP-MW-41HD	2/8/2021 13:48	Depth to Water Detail	4.88	ft
GS-AP-MW-41HD	2/8/2021 13:48	Oxidation Reduction Potention	-20.48	mv
GS-AP-MW-41HD	2/8/2021 13:48	pH	7.34	SU
GS-AP-MW-41HD	2/8/2021 13:48	Temperature	15.17	C
GS-AP-MW-41HD	2/8/2021 13:48	Turbidity	0.07	NTU
GS-AP-MW-41HD	2/8/2021 13:53	Conductivity	514.99	uS/cm
GS-AP-MW-41HD	2/8/2021 13:53	DO	0.25	mg/L
GS-AP-MW-41HD	2/8/2021 13:53	Depth to Water Detail	4.92	ft
GS-AP-MW-41HD	2/8/2021 13:53	Oxidation Reduction Potention	-18.04	mv
GS-AP-MW-41HD	2/8/2021 13:53	pH	7.35	SU
GS-AP-MW-41HD	2/8/2021 13:53	Temperature	15.14	C
GS-AP-MW-41HD	2/8/2021 13:53	Turbidity	0.11	NTU
GS-AP-MW-41HD	2/8/2021 13:58	Conductivity	514.1	uS/cm
GS-AP-MW-41HD	2/8/2021 13:58	DO	0.24	mg/L
GS-AP-MW-41HD	2/8/2021 13:58	Depth to Water Detail	4.96	ft
GS-AP-MW-41HD	2/8/2021 13:58	Oxidation Reduction Potention	-15.98	mv
GS-AP-MW-41HD	2/8/2021 13:58	pH	7.36	SU
GS-AP-MW-41HD	2/8/2021 13:58	Temperature	15.31	C
GS-AP-MW-41HD	2/8/2021 13:58	Turbidity	0.09	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-38H	2/9/2021 9:40	Conductivity	1254.62	uS/cm
GS-AP-MW-38H	2/9/2021 9:40	DO	0.47	mg/L
GS-AP-MW-38H	2/9/2021 9:40	Depth to Water Detail	47.54	ft
GS-AP-MW-38H	2/9/2021 9:40	Oxidation Reduction Potention	-169	mv
GS-AP-MW-38H	2/9/2021 9:40	pH	7.78	SU
GS-AP-MW-38H	2/9/2021 9:40	Temperature	16.83	C
GS-AP-MW-38H	2/9/2021 9:40	Turbidity	3.15	NTU
GS-AP-MW-38H	2/9/2021 9:45	Conductivity	1124.48	uS/cm
GS-AP-MW-38H	2/9/2021 9:45	DO	0.41	mg/L
GS-AP-MW-38H	2/9/2021 9:45	Depth to Water Detail	47.56	ft
GS-AP-MW-38H	2/9/2021 9:45	Oxidation Reduction Potention	-178.09	mv
GS-AP-MW-38H	2/9/2021 9:45	pH	7.87	SU
GS-AP-MW-38H	2/9/2021 9:45	Temperature	16.84	C
GS-AP-MW-38H	2/9/2021 9:45	Turbidity	1.73	NTU
GS-AP-MW-38H	2/9/2021 9:50	Conductivity	944.92	uS/cm
GS-AP-MW-38H	2/9/2021 9:50	DO	0.38	mg/L
GS-AP-MW-38H	2/9/2021 9:50	Depth to Water Detail	47.58	ft
GS-AP-MW-38H	2/9/2021 9:50	Oxidation Reduction Potention	-182.26	mv
GS-AP-MW-38H	2/9/2021 9:50	pH	7.95	SU
GS-AP-MW-38H	2/9/2021 9:50	Temperature	16.85	C
GS-AP-MW-38H	2/9/2021 9:50	Turbidity	0.94	NTU
GS-AP-MW-38H	2/9/2021 9:55	Conductivity	795.97	uS/cm
GS-AP-MW-38H	2/9/2021 9:55	DO	0.37	mg/L
GS-AP-MW-38H	2/9/2021 9:55	Depth to Water Detail	47.58	ft
GS-AP-MW-38H	2/9/2021 9:55	Oxidation Reduction Potention	-181.77	mv
GS-AP-MW-38H	2/9/2021 9:55	pH	8.02	SU
GS-AP-MW-38H	2/9/2021 9:55	Temperature	16.83	C
GS-AP-MW-38H	2/9/2021 9:55	Turbidity	0.75	NTU
GS-AP-MW-38H	2/9/2021 10:00	Conductivity	748.12	uS/cm
GS-AP-MW-38H	2/9/2021 10:00	DO	0.37	mg/L
GS-AP-MW-38H	2/9/2021 10:00	Depth to Water Detail	47.58	ft
GS-AP-MW-38H	2/9/2021 10:00	Oxidation Reduction Potention	-181.16	mv
GS-AP-MW-38H	2/9/2021 10:00	pH	8.04	SU
GS-AP-MW-38H	2/9/2021 10:00	Temperature	17.15	C
GS-AP-MW-38H	2/9/2021 10:00	Turbidity	0.75	NTU
GS-AP-MW-38H	2/9/2021 10:05	Conductivity	709.69	uS/cm
GS-AP-MW-38H	2/9/2021 10:05	DO	0.36	mg/L
GS-AP-MW-38H	2/9/2021 10:05	Depth to Water Detail	47.58	ft
GS-AP-MW-38H	2/9/2021 10:05	Oxidation Reduction Potention	-179.35	mv
GS-AP-MW-38H	2/9/2021 10:05	pH	8.05	SU
GS-AP-MW-38H	2/9/2021 10:05	Temperature	17.19	C
GS-AP-MW-38H	2/9/2021 10:05	Turbidity	0.51	NTU
GS-AP-MW-38H	2/9/2021 10:10	Conductivity	665.24	uS/cm
GS-AP-MW-38H	2/9/2021 10:10	DO	0.37	mg/L
GS-AP-MW-38H	2/9/2021 10:10	Depth to Water Detail	47.58	ft
GS-AP-MW-38H	2/9/2021 10:10	Oxidation Reduction Potention	-179.47	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-38H	2/9/2021 10:10	pH	8.05	SU
GS-AP-MW-38H	2/9/2021 10:10	Temperature	17.23	C
GS-AP-MW-38H	2/9/2021 10:10	Turbidity	0.65	NTU
GS-AP-MW-38H	2/9/2021 10:15	Conductivity	662.36	uS/cm
GS-AP-MW-38H	2/9/2021 10:15	DO	0.36	mg/L
GS-AP-MW-38H	2/9/2021 10:15	Depth to Water Detail	47.58	ft
GS-AP-MW-38H	2/9/2021 10:15	Oxidation Reduction Potention	-178.98	mv
GS-AP-MW-38H	2/9/2021 10:15	pH	8.06	SU
GS-AP-MW-38H	2/9/2021 10:15	Temperature	17.17	C
GS-AP-MW-38H	2/9/2021 10:15	Turbidity	1.24	NTU
GS-AP-MW-38H	2/9/2021 10:20	Conductivity	654.47	uS/cm
GS-AP-MW-38H	2/9/2021 10:20	DO	0.36	mg/L
GS-AP-MW-38H	2/9/2021 10:20	Depth to Water Detail	47.58	ft
GS-AP-MW-38H	2/9/2021 10:20	Oxidation Reduction Potention	-178.72	mv
GS-AP-MW-38H	2/9/2021 10:20	pH	8.06	SU
GS-AP-MW-38H	2/9/2021 10:20	Temperature	17.12	C
GS-AP-MW-38H	2/9/2021 10:20	Turbidity	0.74	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-26H	2/9/2021 11:59	Conductivity	571.5	uS/cm
GS-AP-MW-26H	2/9/2021 11:59	DO	0.32	mg/L
GS-AP-MW-26H	2/9/2021 11:59	Depth to Water Detail	103.36	ft
GS-AP-MW-26H	2/9/2021 11:59	Oxidation Reduction Potention	-118.04	mv
GS-AP-MW-26H	2/9/2021 11:59	pH	7.34	SU
GS-AP-MW-26H	2/9/2021 11:59	Temperature	17.31	C
GS-AP-MW-26H	2/9/2021 11:59	Turbidity	3.96	NTU
GS-AP-MW-26H	2/9/2021 12:04	Conductivity	534.28	uS/cm
GS-AP-MW-26H	2/9/2021 12:04	DO	0.25	mg/L
GS-AP-MW-26H	2/9/2021 12:04	Depth to Water Detail	108.91	ft
GS-AP-MW-26H	2/9/2021 12:04	Oxidation Reduction Potention	-121.34	mv
GS-AP-MW-26H	2/9/2021 12:04	pH	7.31	SU
GS-AP-MW-26H	2/9/2021 12:04	Temperature	17.33	C
GS-AP-MW-26H	2/9/2021 12:04	Turbidity	3.75	NTU
GS-AP-MW-26H	2/9/2021 12:09	Conductivity	527.73	uS/cm
GS-AP-MW-26H	2/9/2021 12:09	DO	0.23	mg/L
GS-AP-MW-26H	2/9/2021 12:09	Depth to Water Detail	112.21	ft
GS-AP-MW-26H	2/9/2021 12:09	Oxidation Reduction Potention	-134.74	mv
GS-AP-MW-26H	2/9/2021 12:09	pH	7.33	SU
GS-AP-MW-26H	2/9/2021 12:09	Temperature	17.35	C
GS-AP-MW-26H	2/9/2021 12:09	Turbidity	4.8	NTU
GS-AP-MW-26H	2/9/2021 12:14	Conductivity	516.19	uS/cm
GS-AP-MW-26H	2/9/2021 12:14	DO	0.28	mg/L
GS-AP-MW-26H	2/9/2021 12:14	Depth to Water Detail	114.16	ft
GS-AP-MW-26H	2/9/2021 12:14	Oxidation Reduction Potention	-148.93	mv
GS-AP-MW-26H	2/9/2021 12:14	pH	7.38	SU
GS-AP-MW-26H	2/9/2021 12:14	Temperature	17.39	C
GS-AP-MW-26H	2/9/2021 12:14	Turbidity	5.16	NTU
GS-AP-MW-26H	2/9/2021 12:19	Conductivity	486.12	uS/cm
GS-AP-MW-26H	2/9/2021 12:19	DO	0.35	mg/L
GS-AP-MW-26H	2/9/2021 12:19	Depth to Water Detail	115.31	ft
GS-AP-MW-26H	2/9/2021 12:19	Oxidation Reduction Potention	-157.29	mv
GS-AP-MW-26H	2/9/2021 12:19	pH	7.41	SU
GS-AP-MW-26H	2/9/2021 12:19	Temperature	17.57	C
GS-AP-MW-26H	2/9/2021 12:19	Turbidity	6.72	NTU
GS-AP-MW-26H	2/9/2021 12:24	Conductivity	461.97	uS/cm
GS-AP-MW-26H	2/9/2021 12:24	DO	0.31	mg/L
GS-AP-MW-26H	2/9/2021 12:24	Depth to Water Detail	115.94	ft
GS-AP-MW-26H	2/9/2021 12:24	Oxidation Reduction Potention	-165.83	mv
GS-AP-MW-26H	2/9/2021 12:24	pH	7.39	SU
GS-AP-MW-26H	2/9/2021 12:24	Temperature	17.92	C
GS-AP-MW-26H	2/9/2021 12:24	Turbidity	6.01	NTU
GS-AP-MW-26H	2/9/2021 12:29	Conductivity	449.39	uS/cm
GS-AP-MW-26H	2/9/2021 12:29	DO	0.52	mg/L
GS-AP-MW-26H	2/9/2021 12:29	Depth to Water Detail	115.41	ft
GS-AP-MW-26H	2/9/2021 12:29	Oxidation Reduction Potention	-162.9	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-26H	2/9/2021 12:29	pH	7.4	SU
GS-AP-MW-26H	2/9/2021 12:29	Temperature	18.1	C
GS-AP-MW-26H	2/9/2021 12:29	Turbidity	4.62	NTU
GS-AP-MW-26H	2/9/2021 12:34	Conductivity	438.14	uS/cm
GS-AP-MW-26H	2/9/2021 12:34	DO	0.6	mg/L
GS-AP-MW-26H	2/9/2021 12:34	Depth to Water Detail	115.11	ft
GS-AP-MW-26H	2/9/2021 12:34	Oxidation Reduction Potention	-162.11	mv
GS-AP-MW-26H	2/9/2021 12:34	pH	7.4	SU
GS-AP-MW-26H	2/9/2021 12:34	Temperature	18.21	C
GS-AP-MW-26H	2/9/2021 12:34	Turbidity	5.9	NTU
GS-AP-MW-26H	2/9/2021 12:39	Conductivity	482.41	uS/cm
GS-AP-MW-26H	2/9/2021 12:39	DO	0.6	mg/L
GS-AP-MW-26H	2/9/2021 12:39	Depth to Water Detail	114.16	ft
GS-AP-MW-26H	2/9/2021 12:39	Oxidation Reduction Potention	-162.24	mv
GS-AP-MW-26H	2/9/2021 12:39	pH	7.4	SU
GS-AP-MW-26H	2/9/2021 12:39	Temperature	17.9	C
GS-AP-MW-26H	2/9/2021 12:39	Turbidity	3	NTU
GS-AP-MW-26H	2/9/2021 12:44	Conductivity	472.49	uS/cm
GS-AP-MW-26H	2/9/2021 12:44	DO	0.68	mg/L
GS-AP-MW-26H	2/9/2021 12:44	Depth to Water Detail	113.68	ft
GS-AP-MW-26H	2/9/2021 12:44	Oxidation Reduction Potention	-161.61	mv
GS-AP-MW-26H	2/9/2021 12:44	pH	7.38	SU
GS-AP-MW-26H	2/9/2021 12:44	Temperature	17.86	C
GS-AP-MW-26H	2/9/2021 12:44	Turbidity	3.14	NTU
GS-AP-MW-26H	2/9/2021 12:49	Conductivity	462.49	uS/cm
GS-AP-MW-26H	2/9/2021 12:49	DO	0.68	mg/L
GS-AP-MW-26H	2/9/2021 12:49	Depth to Water Detail	113.16	ft
GS-AP-MW-26H	2/9/2021 12:49	Oxidation Reduction Potention	-160.49	mv
GS-AP-MW-26H	2/9/2021 12:49	pH	7.38	SU
GS-AP-MW-26H	2/9/2021 12:49	Temperature	17.9	C
GS-AP-MW-26H	2/9/2021 12:49	Turbidity	2.36	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16S	2/10/2021 11:14	Conductivity	4699.83	uS/cm
GS-AP-MW-16S	2/10/2021 11:14	DO	1.73	mg/L
GS-AP-MW-16S	2/10/2021 11:14	Depth to Water Detail	57.24	ft
GS-AP-MW-16S	2/10/2021 11:14	Oxidation Reduction Potention	-139.81	mv
GS-AP-MW-16S	2/10/2021 11:14	pH	12.25	SU
GS-AP-MW-16S	2/10/2021 11:14	Temperature	17.26	C
GS-AP-MW-16S	2/10/2021 11:14	Turbidity	1.71	NTU
GS-AP-MW-16S	2/10/2021 11:19	Conductivity	4608.48	uS/cm
GS-AP-MW-16S	2/10/2021 11:19	DO	1.61	mg/L
GS-AP-MW-16S	2/10/2021 11:19	Depth to Water Detail	57.29	ft
GS-AP-MW-16S	2/10/2021 11:19	Oxidation Reduction Potention	-163.12	mv
GS-AP-MW-16S	2/10/2021 11:19	pH	12.31	SU
GS-AP-MW-16S	2/10/2021 11:19	Temperature	17.31	C
GS-AP-MW-16S	2/10/2021 11:19	Turbidity	1.34	NTU
GS-AP-MW-16S	2/10/2021 11:24	Conductivity	4121.74	uS/cm
GS-AP-MW-16S	2/10/2021 11:24	DO	1.12	mg/L
GS-AP-MW-16S	2/10/2021 11:24	Depth to Water Detail	57.34	ft
GS-AP-MW-16S	2/10/2021 11:24	Oxidation Reduction Potention	-191.21	mv
GS-AP-MW-16S	2/10/2021 11:24	pH	12.3	SU
GS-AP-MW-16S	2/10/2021 11:24	Temperature	17.31	C
GS-AP-MW-16S	2/10/2021 11:24	Turbidity	1.08	NTU
GS-AP-MW-16S	2/10/2021 11:29	Conductivity	3745.84	uS/cm
GS-AP-MW-16S	2/10/2021 11:29	DO	0.73	mg/L
GS-AP-MW-16S	2/10/2021 11:29	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 11:29	Oxidation Reduction Potention	-212.26	mv
GS-AP-MW-16S	2/10/2021 11:29	pH	12.29	SU
GS-AP-MW-16S	2/10/2021 11:29	Temperature	17.34	C
GS-AP-MW-16S	2/10/2021 11:29	Turbidity	0.64	NTU
GS-AP-MW-16S	2/10/2021 11:34	Conductivity	3533.92	uS/cm
GS-AP-MW-16S	2/10/2021 11:34	DO	0.57	mg/L
GS-AP-MW-16S	2/10/2021 11:34	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 11:34	Oxidation Reduction Potention	-222.5	mv
GS-AP-MW-16S	2/10/2021 11:34	pH	12.28	SU
GS-AP-MW-16S	2/10/2021 11:34	Temperature	17.39	C
GS-AP-MW-16S	2/10/2021 11:34	Turbidity	0.72	NTU
GS-AP-MW-16S	2/10/2021 11:39	Conductivity	3419.14	uS/cm
GS-AP-MW-16S	2/10/2021 11:39	DO	0.5	mg/L
GS-AP-MW-16S	2/10/2021 11:39	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 11:39	Oxidation Reduction Potention	-228.47	mv
GS-AP-MW-16S	2/10/2021 11:39	pH	12.26	SU
GS-AP-MW-16S	2/10/2021 11:39	Temperature	17.34	C
GS-AP-MW-16S	2/10/2021 11:39	Turbidity	0.35	NTU
GS-AP-MW-16S	2/10/2021 11:44	Conductivity	3227.55	uS/cm
GS-AP-MW-16S	2/10/2021 11:44	DO	0.47	mg/L
GS-AP-MW-16S	2/10/2021 11:44	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 11:44	Oxidation Reduction Potention	-233.94	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16S	2/10/2021 11:44	pH	12.25	SU
GS-AP-MW-16S	2/10/2021 11:44	Temperature	17.05	C
GS-AP-MW-16S	2/10/2021 11:44	Turbidity	0.77	NTU
GS-AP-MW-16S	2/10/2021 11:49	Conductivity	3079.22	uS/cm
GS-AP-MW-16S	2/10/2021 11:49	DO	0.47	mg/L
GS-AP-MW-16S	2/10/2021 11:49	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 11:49	Oxidation Reduction Potention	-239.71	mv
GS-AP-MW-16S	2/10/2021 11:49	pH	12.25	SU
GS-AP-MW-16S	2/10/2021 11:49	Temperature	16.99	C
GS-AP-MW-16S	2/10/2021 11:49	Turbidity	0.52	NTU
GS-AP-MW-16S	2/10/2021 11:54	Conductivity	2753.97	uS/cm
GS-AP-MW-16S	2/10/2021 11:54	DO	0.47	mg/L
GS-AP-MW-16S	2/10/2021 11:54	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 11:54	Oxidation Reduction Potention	-248.78	mv
GS-AP-MW-16S	2/10/2021 11:54	pH	12.29	SU
GS-AP-MW-16S	2/10/2021 11:54	Temperature	17.04	C
GS-AP-MW-16S	2/10/2021 11:54	Turbidity	1.66	NTU
GS-AP-MW-16S	2/10/2021 11:59	Conductivity	2403.19	uS/cm
GS-AP-MW-16S	2/10/2021 11:59	DO	0.45	mg/L
GS-AP-MW-16S	2/10/2021 11:59	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 11:59	Oxidation Reduction Potention	-252.47	mv
GS-AP-MW-16S	2/10/2021 11:59	pH	12.2	SU
GS-AP-MW-16S	2/10/2021 11:59	Temperature	17.09	C
GS-AP-MW-16S	2/10/2021 11:59	Turbidity	0.79	NTU
GS-AP-MW-16S	2/10/2021 12:04	Conductivity	2022.63	uS/cm
GS-AP-MW-16S	2/10/2021 12:04	DO	0.44	mg/L
GS-AP-MW-16S	2/10/2021 12:04	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:04	Oxidation Reduction Potention	-255.59	mv
GS-AP-MW-16S	2/10/2021 12:04	pH	12.12	SU
GS-AP-MW-16S	2/10/2021 12:04	Temperature	17.17	C
GS-AP-MW-16S	2/10/2021 12:04	Turbidity	0.89	NTU
GS-AP-MW-16S	2/10/2021 12:09	Conductivity	1759.96	uS/cm
GS-AP-MW-16S	2/10/2021 12:09	DO	0.45	mg/L
GS-AP-MW-16S	2/10/2021 12:09	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:09	Oxidation Reduction Potention	-256.21	mv
GS-AP-MW-16S	2/10/2021 12:09	pH	12.03	SU
GS-AP-MW-16S	2/10/2021 12:09	Temperature	17.3	C
GS-AP-MW-16S	2/10/2021 12:09	Turbidity	1.22	NTU
GS-AP-MW-16S	2/10/2021 12:14	Conductivity	1557.45	uS/cm
GS-AP-MW-16S	2/10/2021 12:14	DO	0.44	mg/L
GS-AP-MW-16S	2/10/2021 12:14	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:14	Oxidation Reduction Potention	-255.62	mv
GS-AP-MW-16S	2/10/2021 12:14	pH	11.94	SU
GS-AP-MW-16S	2/10/2021 12:14	Temperature	17.44	C
GS-AP-MW-16S	2/10/2021 12:14	Turbidity	3.03	NTU
GS-AP-MW-16S	2/10/2021 12:19	Conductivity	1353.6	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16S	2/10/2021 12:19	DO	0.43	mg/L
GS-AP-MW-16S	2/10/2021 12:19	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:19	Oxidation Reduction Potention	-253.17	mv
GS-AP-MW-16S	2/10/2021 12:19	pH	11.77	SU
GS-AP-MW-16S	2/10/2021 12:19	Temperature	17.5	C
GS-AP-MW-16S	2/10/2021 12:19	Turbidity	3.36	NTU
GS-AP-MW-16S	2/10/2021 12:24	Conductivity	1116.21	uS/cm
GS-AP-MW-16S	2/10/2021 12:24	DO	0.42	mg/L
GS-AP-MW-16S	2/10/2021 12:24	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:24	Oxidation Reduction Potention	-247.56	mv
GS-AP-MW-16S	2/10/2021 12:24	pH	11.52	SU
GS-AP-MW-16S	2/10/2021 12:24	Temperature	17.6	C
GS-AP-MW-16S	2/10/2021 12:24	Turbidity	6.96	NTU
GS-AP-MW-16S	2/10/2021 12:29	Conductivity	1101.78	uS/cm
GS-AP-MW-16S	2/10/2021 12:29	DO	0.43	mg/L
GS-AP-MW-16S	2/10/2021 12:29	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:29	Oxidation Reduction Potention	-246.32	mv
GS-AP-MW-16S	2/10/2021 12:29	pH	11.43	SU
GS-AP-MW-16S	2/10/2021 12:29	Temperature	17.5	C
GS-AP-MW-16S	2/10/2021 12:29	Turbidity	3.39	NTU
GS-AP-MW-16S	2/10/2021 12:34	Conductivity	979.71	uS/cm
GS-AP-MW-16S	2/10/2021 12:34	DO	0.43	mg/L
GS-AP-MW-16S	2/10/2021 12:34	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:34	Oxidation Reduction Potention	-241.9	mv
GS-AP-MW-16S	2/10/2021 12:34	pH	11.24	SU
GS-AP-MW-16S	2/10/2021 12:34	Temperature	17.34	C
GS-AP-MW-16S	2/10/2021 12:34	Turbidity	5.29	NTU
GS-AP-MW-16S	2/10/2021 12:39	Conductivity	921.1	uS/cm
GS-AP-MW-16S	2/10/2021 12:39	DO	0.42	mg/L
GS-AP-MW-16S	2/10/2021 12:39	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:39	Oxidation Reduction Potention	-237.97	mv
GS-AP-MW-16S	2/10/2021 12:39	pH	11.1	SU
GS-AP-MW-16S	2/10/2021 12:39	Temperature	17.4	C
GS-AP-MW-16S	2/10/2021 12:39	Turbidity	4.18	NTU
GS-AP-MW-16S	2/10/2021 12:44	Conductivity	859.38	uS/cm
GS-AP-MW-16S	2/10/2021 12:44	DO	0.4	mg/L
GS-AP-MW-16S	2/10/2021 12:44	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:44	Oxidation Reduction Potention	-232.08	mv
GS-AP-MW-16S	2/10/2021 12:44	pH	10.86	SU
GS-AP-MW-16S	2/10/2021 12:44	Temperature	17.44	C
GS-AP-MW-16S	2/10/2021 12:44	Turbidity	3.74	NTU
GS-AP-MW-16S	2/10/2021 12:49	Conductivity	831.99	uS/cm
GS-AP-MW-16S	2/10/2021 12:49	DO	0.39	mg/L
GS-AP-MW-16S	2/10/2021 12:49	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:49	Oxidation Reduction Potention	-226.03	mv
GS-AP-MW-16S	2/10/2021 12:49	pH	10.63	SU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16S	2/10/2021 12:49	Temperature	17.49	C
GS-AP-MW-16S	2/10/2021 12:49	Turbidity	7.42	NTU
GS-AP-MW-16S	2/10/2021 12:54	Conductivity	825.43	uS/cm
GS-AP-MW-16S	2/10/2021 12:54	DO	0.39	mg/L
GS-AP-MW-16S	2/10/2021 12:54	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:54	Oxidation Reduction Potention	-222.45	mv
GS-AP-MW-16S	2/10/2021 12:54	pH	10.53	SU
GS-AP-MW-16S	2/10/2021 12:54	Temperature	17.56	C
GS-AP-MW-16S	2/10/2021 12:54	Turbidity	7.17	NTU
GS-AP-MW-16S	2/10/2021 12:59	Conductivity	810.6	uS/cm
GS-AP-MW-16S	2/10/2021 12:59	DO	0.39	mg/L
GS-AP-MW-16S	2/10/2021 12:59	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 12:59	Oxidation Reduction Potention	-219.1	mv
GS-AP-MW-16S	2/10/2021 12:59	pH	10.41	SU
GS-AP-MW-16S	2/10/2021 12:59	Temperature	17.59	C
GS-AP-MW-16S	2/10/2021 12:59	Turbidity	7.34	NTU
GS-AP-MW-16S	2/10/2021 13:04	Conductivity	810.05	uS/cm
GS-AP-MW-16S	2/10/2021 13:04	DO	0.38	mg/L
GS-AP-MW-16S	2/10/2021 13:04	Depth to Water Detail	57.36	ft
GS-AP-MW-16S	2/10/2021 13:04	Oxidation Reduction Potention	-216.53	mv
GS-AP-MW-16S	2/10/2021 13:04	pH	10.37	SU
GS-AP-MW-16S	2/10/2021 13:04	Temperature	17.63	C
GS-AP-MW-16S	2/10/2021 13:04	Turbidity	3.07	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16D	2/10/2021 13:41	Conductivity	360.4	uS/cm
GS-AP-MW-16D	2/10/2021 13:41	DO	1.77	mg/L
GS-AP-MW-16D	2/10/2021 13:41	Depth to Water Detail	140.42	ft
GS-AP-MW-16D	2/10/2021 13:41	Oxidation Reduction Potention	-92.77	mv
GS-AP-MW-16D	2/10/2021 13:41	pH	7.73	SU
GS-AP-MW-16D	2/10/2021 13:41	Temperature	18.6	C
GS-AP-MW-16D	2/10/2021 13:41	Turbidity	21.6	NTU
GS-AP-MW-16D	2/10/2021 13:46	Conductivity	362.02	uS/cm
GS-AP-MW-16D	2/10/2021 13:46	DO	0.89	mg/L
GS-AP-MW-16D	2/10/2021 13:46	Depth to Water Detail	140.91	ft
GS-AP-MW-16D	2/10/2021 13:46	Oxidation Reduction Potention	-90.24	mv
GS-AP-MW-16D	2/10/2021 13:46	pH	7.6	SU
GS-AP-MW-16D	2/10/2021 13:46	Temperature	18.36	C
GS-AP-MW-16D	2/10/2021 13:46	Turbidity	29.1	NTU
GS-AP-MW-16D	2/10/2021 13:51	Conductivity	361.06	uS/cm
GS-AP-MW-16D	2/10/2021 13:51	DO	0.66	mg/L
GS-AP-MW-16D	2/10/2021 13:51	Depth to Water Detail	141.41	ft
GS-AP-MW-16D	2/10/2021 13:51	Oxidation Reduction Potention	-89.92	mv
GS-AP-MW-16D	2/10/2021 13:51	pH	7.57	SU
GS-AP-MW-16D	2/10/2021 13:51	Temperature	17.83	C
GS-AP-MW-16D	2/10/2021 13:51	Turbidity	25.8	NTU
GS-AP-MW-16D	2/10/2021 13:56	Conductivity	359.67	uS/cm
GS-AP-MW-16D	2/10/2021 13:56	DO	0.51	mg/L
GS-AP-MW-16D	2/10/2021 13:56	Depth to Water Detail	141.84	ft
GS-AP-MW-16D	2/10/2021 13:56	Oxidation Reduction Potention	-95.55	mv
GS-AP-MW-16D	2/10/2021 13:56	pH	7.57	SU
GS-AP-MW-16D	2/10/2021 13:56	Temperature	17.66	C
GS-AP-MW-16D	2/10/2021 13:56	Turbidity	26.1	NTU
GS-AP-MW-16D	2/10/2021 14:01	Conductivity	357.57	uS/cm
GS-AP-MW-16D	2/10/2021 14:01	DO	0.49	mg/L
GS-AP-MW-16D	2/10/2021 14:01	Depth to Water Detail	142.26	ft
GS-AP-MW-16D	2/10/2021 14:01	Oxidation Reduction Potention	-98.02	mv
GS-AP-MW-16D	2/10/2021 14:01	pH	7.58	SU
GS-AP-MW-16D	2/10/2021 14:01	Temperature	17.5	C
GS-AP-MW-16D	2/10/2021 14:01	Turbidity	31.5	NTU
GS-AP-MW-16D	2/10/2021 14:06	Conductivity	356.78	uS/cm
GS-AP-MW-16D	2/10/2021 14:06	DO	0.49	mg/L
GS-AP-MW-16D	2/10/2021 14:06	Depth to Water Detail	142.6	ft
GS-AP-MW-16D	2/10/2021 14:06	Oxidation Reduction Potention	-98.71	mv
GS-AP-MW-16D	2/10/2021 14:06	pH	7.59	SU
GS-AP-MW-16D	2/10/2021 14:06	Temperature	17.33	C
GS-AP-MW-16D	2/10/2021 14:06	Turbidity	27.1	NTU
GS-AP-MW-16D	2/10/2021 14:11	Conductivity	356.64	uS/cm
GS-AP-MW-16D	2/10/2021 14:11	DO	0.48	mg/L
GS-AP-MW-16D	2/10/2021 14:11	Depth to Water Detail	142.94	ft
GS-AP-MW-16D	2/10/2021 14:11	Oxidation Reduction Potention	-97.81	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16D	2/10/2021 14:11	pH	7.61	SU
GS-AP-MW-16D	2/10/2021 14:11	Temperature	17.38	C
GS-AP-MW-16D	2/10/2021 14:11	Turbidity	30.4	NTU
GS-AP-MW-16D	2/10/2021 14:16	Conductivity	355.95	uS/cm
GS-AP-MW-16D	2/10/2021 14:16	DO	0.5	mg/L
GS-AP-MW-16D	2/10/2021 14:16	Depth to Water Detail	143.14	ft
GS-AP-MW-16D	2/10/2021 14:16	Oxidation Reduction Potention	-96.78	mv
GS-AP-MW-16D	2/10/2021 14:16	pH	7.63	SU
GS-AP-MW-16D	2/10/2021 14:16	Temperature	17.27	C
GS-AP-MW-16D	2/10/2021 14:16	Turbidity	30.7	NTU
GS-AP-MW-16D	2/10/2021 14:21	Conductivity	355.76	uS/cm
GS-AP-MW-16D	2/10/2021 14:21	DO	0.5	mg/L
GS-AP-MW-16D	2/10/2021 14:21	Depth to Water Detail	143.39	ft
GS-AP-MW-16D	2/10/2021 14:21	Oxidation Reduction Potention	-95.91	mv
GS-AP-MW-16D	2/10/2021 14:21	pH	7.63	SU
GS-AP-MW-16D	2/10/2021 14:21	Temperature	17.13	C
GS-AP-MW-16D	2/10/2021 14:21	Turbidity	28.7	NTU
GS-AP-MW-16D	2/10/2021 14:26	Conductivity	355.07	uS/cm
GS-AP-MW-16D	2/10/2021 14:26	DO	0.5	mg/L
GS-AP-MW-16D	2/10/2021 14:26	Depth to Water Detail	143.55	ft
GS-AP-MW-16D	2/10/2021 14:26	Oxidation Reduction Potention	-94.25	mv
GS-AP-MW-16D	2/10/2021 14:26	pH	7.64	SU
GS-AP-MW-16D	2/10/2021 14:26	Temperature	17.17	C
GS-AP-MW-16D	2/10/2021 14:26	Turbidity	29.6	NTU
GS-AP-MW-16D	2/10/2021 14:31	Conductivity	354.44	uS/cm
GS-AP-MW-16D	2/10/2021 14:31	DO	0.51	mg/L
GS-AP-MW-16D	2/10/2021 14:31	Depth to Water Detail	143.64	ft
GS-AP-MW-16D	2/10/2021 14:31	Oxidation Reduction Potention	-93.52	mv
GS-AP-MW-16D	2/10/2021 14:31	pH	7.65	SU
GS-AP-MW-16D	2/10/2021 14:31	Temperature	17.17	C
GS-AP-MW-16D	2/10/2021 14:31	Turbidity	30.7	NTU
GS-AP-MW-16D	2/10/2021 14:36	Conductivity	355.54	uS/cm
GS-AP-MW-16D	2/10/2021 14:36	DO	0.51	mg/L
GS-AP-MW-16D	2/10/2021 14:36	Depth to Water Detail	143.79	ft
GS-AP-MW-16D	2/10/2021 14:36	Oxidation Reduction Potention	-92.98	mv
GS-AP-MW-16D	2/10/2021 14:36	pH	7.66	SU
GS-AP-MW-16D	2/10/2021 14:36	Temperature	17.1	C
GS-AP-MW-16D	2/10/2021 14:36	Turbidity	30.3	NTU
GS-AP-MW-16D	2/10/2021 14:41	Conductivity	386.88	uS/cm
GS-AP-MW-16D	2/10/2021 14:41	DO	0.63	mg/L
GS-AP-MW-16D	2/10/2021 14:41	Depth to Water Detail	143.92	ft
GS-AP-MW-16D	2/10/2021 14:41	Oxidation Reduction Potention	-76.48	mv
GS-AP-MW-16D	2/10/2021 14:41	pH	7.69	SU
GS-AP-MW-16D	2/10/2021 14:41	Temperature	17.11	C
GS-AP-MW-16D	2/10/2021 14:41	Turbidity	32.6	NTU
GS-AP-MW-16D	2/10/2021 14:46	Conductivity	386.67	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16D	2/10/2021 14:46	DO	0.54	mg/L
GS-AP-MW-16D	2/10/2021 14:46	Depth to Water Detail	144.06	ft
GS-AP-MW-16D	2/10/2021 14:46	Oxidation Reduction Potention	-82.9	mv
GS-AP-MW-16D	2/10/2021 14:46	pH	7.68	SU
GS-AP-MW-16D	2/10/2021 14:46	Temperature	17.01	C
GS-AP-MW-16D	2/10/2021 14:46	Turbidity	24.6	NTU
GS-AP-MW-16D	2/10/2021 14:51	Conductivity	386.26	uS/cm
GS-AP-MW-16D	2/10/2021 14:51	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 14:51	Depth to Water Detail	144.14	ft
GS-AP-MW-16D	2/10/2021 14:51	Oxidation Reduction Potention	-85.83	mv
GS-AP-MW-16D	2/10/2021 14:51	pH	7.67	SU
GS-AP-MW-16D	2/10/2021 14:51	Temperature	16.92	C
GS-AP-MW-16D	2/10/2021 14:51	Turbidity	27	NTU
GS-AP-MW-16D	2/10/2021 14:56	Conductivity	386.3	uS/cm
GS-AP-MW-16D	2/10/2021 14:56	DO	0.52	mg/L
GS-AP-MW-16D	2/10/2021 14:56	Depth to Water Detail	144.19	ft
GS-AP-MW-16D	2/10/2021 14:56	Oxidation Reduction Potention	-86.98	mv
GS-AP-MW-16D	2/10/2021 14:56	pH	7.69	SU
GS-AP-MW-16D	2/10/2021 14:56	Temperature	17	C
GS-AP-MW-16D	2/10/2021 14:56	Turbidity	27.9	NTU
GS-AP-MW-16D	2/10/2021 15:01	Conductivity	385.73	uS/cm
GS-AP-MW-16D	2/10/2021 15:01	DO	0.54	mg/L
GS-AP-MW-16D	2/10/2021 15:01	Depth to Water Detail	144.21	ft
GS-AP-MW-16D	2/10/2021 15:01	Oxidation Reduction Potention	-87.27	mv
GS-AP-MW-16D	2/10/2021 15:01	pH	7.69	SU
GS-AP-MW-16D	2/10/2021 15:01	Temperature	16.88	C
GS-AP-MW-16D	2/10/2021 15:01	Turbidity	26.4	NTU
GS-AP-MW-16D	2/10/2021 15:06	Conductivity	386.07	uS/cm
GS-AP-MW-16D	2/10/2021 15:06	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:06	Depth to Water Detail	144.31	ft
GS-AP-MW-16D	2/10/2021 15:06	Oxidation Reduction Potention	-87.46	mv
GS-AP-MW-16D	2/10/2021 15:06	pH	7.7	SU
GS-AP-MW-16D	2/10/2021 15:06	Temperature	16.99	C
GS-AP-MW-16D	2/10/2021 15:06	Turbidity	26.3	NTU
GS-AP-MW-16D	2/10/2021 15:11	Conductivity	386.11	uS/cm
GS-AP-MW-16D	2/10/2021 15:11	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:11	Depth to Water Detail	144.33	ft
GS-AP-MW-16D	2/10/2021 15:11	Oxidation Reduction Potention	-87.85	mv
GS-AP-MW-16D	2/10/2021 15:11	pH	7.71	SU
GS-AP-MW-16D	2/10/2021 15:11	Temperature	16.96	C
GS-AP-MW-16D	2/10/2021 15:11	Turbidity	28.6	NTU
GS-AP-MW-16D	2/10/2021 15:16	Conductivity	385.75	uS/cm
GS-AP-MW-16D	2/10/2021 15:16	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:16	Depth to Water Detail	144.36	ft
GS-AP-MW-16D	2/10/2021 15:16	Oxidation Reduction Potention	-88.29	mv
GS-AP-MW-16D	2/10/2021 15:16	pH	7.7	SU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16D	2/10/2021 15:16	Temperature	16.87	C
GS-AP-MW-16D	2/10/2021 15:16	Turbidity	29.7	NTU
GS-AP-MW-16D	2/10/2021 15:21	Conductivity	385.64	uS/cm
GS-AP-MW-16D	2/10/2021 15:21	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:21	Depth to Water Detail	144.38	ft
GS-AP-MW-16D	2/10/2021 15:21	Oxidation Reduction Potention	-89.14	mv
GS-AP-MW-16D	2/10/2021 15:21	pH	7.7	SU
GS-AP-MW-16D	2/10/2021 15:21	Temperature	16.82	C
GS-AP-MW-16D	2/10/2021 15:21	Turbidity	22.9	NTU
GS-AP-MW-16D	2/10/2021 15:26	Conductivity	385.36	uS/cm
GS-AP-MW-16D	2/10/2021 15:26	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:26	Depth to Water Detail	144.41	ft
GS-AP-MW-16D	2/10/2021 15:26	Oxidation Reduction Potention	-87.25	mv
GS-AP-MW-16D	2/10/2021 15:26	pH	7.71	SU
GS-AP-MW-16D	2/10/2021 15:26	Temperature	16.81	C
GS-AP-MW-16D	2/10/2021 15:26	Turbidity	26.6	NTU
GS-AP-MW-16D	2/10/2021 15:31	Conductivity	385.16	uS/cm
GS-AP-MW-16D	2/10/2021 15:31	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:31	Depth to Water Detail	144.44	ft
GS-AP-MW-16D	2/10/2021 15:31	Oxidation Reduction Potention	-87.09	mv
GS-AP-MW-16D	2/10/2021 15:31	pH	7.71	SU
GS-AP-MW-16D	2/10/2021 15:31	Temperature	16.82	C
GS-AP-MW-16D	2/10/2021 15:31	Turbidity	23.9	NTU
GS-AP-MW-16D	2/10/2021 15:36	Conductivity	385.2	uS/cm
GS-AP-MW-16D	2/10/2021 15:36	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:36	Depth to Water Detail	144.5	ft
GS-AP-MW-16D	2/10/2021 15:36	Oxidation Reduction Potention	-86.03	mv
GS-AP-MW-16D	2/10/2021 15:36	pH	7.71	SU
GS-AP-MW-16D	2/10/2021 15:36	Temperature	16.69	C
GS-AP-MW-16D	2/10/2021 15:36	Turbidity	28.4	NTU
GS-AP-MW-16D	2/10/2021 15:41	Conductivity	385.16	uS/cm
GS-AP-MW-16D	2/10/2021 15:41	DO	0.53	mg/L
GS-AP-MW-16D	2/10/2021 15:41	Depth to Water Detail	144.54	ft
GS-AP-MW-16D	2/10/2021 15:41	Oxidation Reduction Potention	-85.28	mv
GS-AP-MW-16D	2/10/2021 15:41	pH	7.71	SU
GS-AP-MW-16D	2/10/2021 15:41	Temperature	16.64	C
GS-AP-MW-16D	2/10/2021 15:41	Turbidity	26.9	NTU
GS-AP-MW-16D	2/10/2021 15:46	Conductivity	384.9	uS/cm
GS-AP-MW-16D	2/10/2021 15:46	DO	0.54	mg/L
GS-AP-MW-16D	2/10/2021 15:46	Depth to Water Detail	144.56	ft
GS-AP-MW-16D	2/10/2021 15:46	Oxidation Reduction Potention	-86.83	mv
GS-AP-MW-16D	2/10/2021 15:46	pH	7.73	SU
GS-AP-MW-16D	2/10/2021 15:46	Temperature	16.61	C
GS-AP-MW-16D	2/10/2021 15:46	Turbidity	27.2	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-30HA	2/17/2021 13:44	Conductivity	789.38	uS/cm
GS-AP-MW-30HA	2/17/2021 13:44	DO	3.24	mg/L
GS-AP-MW-30HA	2/17/2021 13:44	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 13:44	Oxidation Reduction Potention	-46.26	mv
GS-AP-MW-30HA	2/17/2021 13:44	pH	7.37	SU
GS-AP-MW-30HA	2/17/2021 13:44	Temperature	15.9	C
GS-AP-MW-30HA	2/17/2021 13:44	Turbidity	27.2	NTU
GS-AP-MW-30HA	2/17/2021 13:49	Conductivity	935.58	uS/cm
GS-AP-MW-30HA	2/17/2021 13:49	DO	1.36	mg/L
GS-AP-MW-30HA	2/17/2021 13:49	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 13:49	Oxidation Reduction Potention	-35.08	mv
GS-AP-MW-30HA	2/17/2021 13:49	pH	7.3	SU
GS-AP-MW-30HA	2/17/2021 13:49	Temperature	15.59	C
GS-AP-MW-30HA	2/17/2021 13:49	Turbidity	2.14	NTU
GS-AP-MW-30HA	2/17/2021 13:54	Conductivity	912.13	uS/cm
GS-AP-MW-30HA	2/17/2021 13:54	DO	0.67	mg/L
GS-AP-MW-30HA	2/17/2021 13:54	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 13:54	Oxidation Reduction Potention	-208.94	mv
GS-AP-MW-30HA	2/17/2021 13:54	pH	7.41	SU
GS-AP-MW-30HA	2/17/2021 13:54	Temperature	15.89	C
GS-AP-MW-30HA	2/17/2021 13:54	Turbidity	1.96	NTU
GS-AP-MW-30HA	2/17/2021 13:59	Conductivity	873.41	uS/cm
GS-AP-MW-30HA	2/17/2021 13:59	DO	0.4	mg/L
GS-AP-MW-30HA	2/17/2021 13:59	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 13:59	Oxidation Reduction Potention	-275.94	mv
GS-AP-MW-30HA	2/17/2021 13:59	pH	7.49	SU
GS-AP-MW-30HA	2/17/2021 13:59	Temperature	15.48	C
GS-AP-MW-30HA	2/17/2021 13:59	Turbidity	0.53	NTU
GS-AP-MW-30HA	2/17/2021 14:04	Conductivity	804.39	uS/cm
GS-AP-MW-30HA	2/17/2021 14:04	DO	0.33	mg/L
GS-AP-MW-30HA	2/17/2021 14:04	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 14:04	Oxidation Reduction Potention	-284.46	mv
GS-AP-MW-30HA	2/17/2021 14:04	pH	7.52	SU
GS-AP-MW-30HA	2/17/2021 14:04	Temperature	15.39	C
GS-AP-MW-30HA	2/17/2021 14:04	Turbidity	0.68	NTU
GS-AP-MW-30HA	2/17/2021 14:09	Conductivity	737.03	uS/cm
GS-AP-MW-30HA	2/17/2021 14:09	DO	0.35	mg/L
GS-AP-MW-30HA	2/17/2021 14:09	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 14:09	Oxidation Reduction Potention	-267.16	mv
GS-AP-MW-30HA	2/17/2021 14:09	pH	7.39	SU
GS-AP-MW-30HA	2/17/2021 14:09	Temperature	15.44	C
GS-AP-MW-30HA	2/17/2021 14:09	Turbidity	0.48	NTU
GS-AP-MW-30HA	2/17/2021 14:14	Conductivity	710.47	uS/cm
GS-AP-MW-30HA	2/17/2021 14:14	DO	0.36	mg/L
GS-AP-MW-30HA	2/17/2021 14:14	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 14:14	Oxidation Reduction Potention	-245.24	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-30HA	2/17/2021 14:14	pH	7.34	SU
GS-AP-MW-30HA	2/17/2021 14:14	Temperature	15.22	C
GS-AP-MW-30HA	2/17/2021 14:14	Turbidity	0.51	NTU
GS-AP-MW-30HA	2/17/2021 14:19	Conductivity	723.03	uS/cm
GS-AP-MW-30HA	2/17/2021 14:19	DO	0.39	mg/L
GS-AP-MW-30HA	2/17/2021 14:19	Depth to Water Detail	286.86	ft
GS-AP-MW-30HA	2/17/2021 14:19	Oxidation Reduction Potention	-230.16	mv
GS-AP-MW-30HA	2/17/2021 14:19	pH	7.29	SU
GS-AP-MW-30HA	2/17/2021 14:19	Temperature	15.39	C
GS-AP-MW-30HA	2/17/2021 14:19	Turbidity	0.76	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-28H	2/17/2021 12:26	Conductivity	604.88	uS/cm
GS-AP-MW-28H	2/17/2021 12:26	DO	1.16	mg/L
GS-AP-MW-28H	2/17/2021 12:26	Depth to Water Detail	151.14	ft
GS-AP-MW-28H	2/17/2021 12:26	Oxidation Reduction Potention	-130.39	mv
GS-AP-MW-28H	2/17/2021 12:26	pH	7.82	SU
GS-AP-MW-28H	2/17/2021 12:26	Temperature	16.27	C
GS-AP-MW-28H	2/17/2021 12:26	Turbidity	1.97	NTU
GS-AP-MW-28H	2/17/2021 12:31	Conductivity	583.94	uS/cm
GS-AP-MW-28H	2/17/2021 12:31	DO	0.82	mg/L
GS-AP-MW-28H	2/17/2021 12:31	Depth to Water Detail	151.14	ft
GS-AP-MW-28H	2/17/2021 12:31	Oxidation Reduction Potention	-159.1	mv
GS-AP-MW-28H	2/17/2021 12:31	pH	8.1	SU
GS-AP-MW-28H	2/17/2021 12:31	Temperature	16.55	C
GS-AP-MW-28H	2/17/2021 12:31	Turbidity	2.15	NTU
GS-AP-MW-28H	2/17/2021 12:36	Conductivity	561.39	uS/cm
GS-AP-MW-28H	2/17/2021 12:36	DO	0.7	mg/L
GS-AP-MW-28H	2/17/2021 12:36	Depth to Water Detail	151.14	ft
GS-AP-MW-28H	2/17/2021 12:36	Oxidation Reduction Potention	-170.81	mv
GS-AP-MW-28H	2/17/2021 12:36	pH	8.21	SU
GS-AP-MW-28H	2/17/2021 12:36	Temperature	16.29	C
GS-AP-MW-28H	2/17/2021 12:36	Turbidity	1.75	NTU
GS-AP-MW-28H	2/17/2021 12:41	Conductivity	556.06	uS/cm
GS-AP-MW-28H	2/17/2021 12:41	DO	0.67	mg/L
GS-AP-MW-28H	2/17/2021 12:41	Depth to Water Detail	151.14	ft
GS-AP-MW-28H	2/17/2021 12:41	Oxidation Reduction Potention	-174.8	mv
GS-AP-MW-28H	2/17/2021 12:41	pH	8.26	SU
GS-AP-MW-28H	2/17/2021 12:41	Temperature	16.53	C
GS-AP-MW-28H	2/17/2021 12:41	Turbidity	1.84	NTU
GS-AP-MW-28H	2/17/2021 12:46	Conductivity	551.88	uS/cm
GS-AP-MW-28H	2/17/2021 12:46	DO	0.66	mg/L
GS-AP-MW-28H	2/17/2021 12:46	Depth to Water Detail	151.14	ft
GS-AP-MW-28H	2/17/2021 12:46	Oxidation Reduction Potention	-176.48	mv
GS-AP-MW-28H	2/17/2021 12:46	pH	8.31	SU
GS-AP-MW-28H	2/17/2021 12:46	Temperature	16.35	C
GS-AP-MW-28H	2/17/2021 12:46	Turbidity	1.38	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-36H	2/17/2021 9:55	Conductivity	545.63	uS/cm
GS-AP-MW-36H	2/17/2021 9:55	DO	1.36	mg/L
GS-AP-MW-36H	2/17/2021 9:55	Depth to Water Detail	229.34	ft
GS-AP-MW-36H	2/17/2021 9:55	Oxidation Reduction Potention	147.71	mv
GS-AP-MW-36H	2/17/2021 9:55	pH	7.16	SU
GS-AP-MW-36H	2/17/2021 9:55	Temperature	13.66	C
GS-AP-MW-36H	2/17/2021 9:55	Turbidity	4.36	NTU
GS-AP-MW-36H	2/17/2021 10:00	Conductivity	474.38	uS/cm
GS-AP-MW-36H	2/17/2021 10:00	DO	4.37	mg/L
GS-AP-MW-36H	2/17/2021 10:00	Depth to Water Detail	229.7	ft
GS-AP-MW-36H	2/17/2021 10:00	Oxidation Reduction Potention	26.16	mv
GS-AP-MW-36H	2/17/2021 10:00	pH	7.59	SU
GS-AP-MW-36H	2/17/2021 10:00	Temperature	12.49	C
GS-AP-MW-36H	2/17/2021 10:00	Turbidity	3.25	NTU
GS-AP-MW-36H	2/17/2021 10:05	Conductivity	408.8	uS/cm
GS-AP-MW-36H	2/17/2021 10:05	DO	3.02	mg/L
GS-AP-MW-36H	2/17/2021 10:05	Depth to Water Detail	230.04	ft
GS-AP-MW-36H	2/17/2021 10:05	Oxidation Reduction Potention	-14.72	mv
GS-AP-MW-36H	2/17/2021 10:05	pH	7.86	SU
GS-AP-MW-36H	2/17/2021 10:05	Temperature	13.05	C
GS-AP-MW-36H	2/17/2021 10:05	Turbidity	8.08	NTU
GS-AP-MW-36H	2/17/2021 10:10	Conductivity	406.67	uS/cm
GS-AP-MW-36H	2/17/2021 10:10	DO	2.11	mg/L
GS-AP-MW-36H	2/17/2021 10:10	Depth to Water Detail	230.5	ft
GS-AP-MW-36H	2/17/2021 10:10	Oxidation Reduction Potention	-57.62	mv
GS-AP-MW-36H	2/17/2021 10:10	pH	8.05	SU
GS-AP-MW-36H	2/17/2021 10:10	Temperature	12.38	C
GS-AP-MW-36H	2/17/2021 10:10	Turbidity	7.52	NTU
GS-AP-MW-36H	2/17/2021 10:15	Conductivity	407.48	uS/cm
GS-AP-MW-36H	2/17/2021 10:15	DO	1.42	mg/L
GS-AP-MW-36H	2/17/2021 10:15	Depth to Water Detail	230.84	ft
GS-AP-MW-36H	2/17/2021 10:15	Oxidation Reduction Potention	-87.12	mv
GS-AP-MW-36H	2/17/2021 10:15	pH	8.17	SU
GS-AP-MW-36H	2/17/2021 10:15	Temperature	13.33	C
GS-AP-MW-36H	2/17/2021 10:15	Turbidity	6.15	NTU
GS-AP-MW-36H	2/17/2021 10:20	Conductivity	405.46	uS/cm
GS-AP-MW-36H	2/17/2021 10:20	DO	1.1	mg/L
GS-AP-MW-36H	2/17/2021 10:20	Depth to Water Detail	231.12	ft
GS-AP-MW-36H	2/17/2021 10:20	Oxidation Reduction Potention	-110.08	mv
GS-AP-MW-36H	2/17/2021 10:20	pH	8.23	SU
GS-AP-MW-36H	2/17/2021 10:20	Temperature	12.94	C
GS-AP-MW-36H	2/17/2021 10:20	Turbidity	5.34	NTU
GS-AP-MW-36H	2/17/2021 10:25	Conductivity	404.9	uS/cm
GS-AP-MW-36H	2/17/2021 10:25	DO	0.9	mg/L
GS-AP-MW-36H	2/17/2021 10:25	Depth to Water Detail	231.44	ft
GS-AP-MW-36H	2/17/2021 10:25	Oxidation Reduction Potention	-124.7	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-36H	2/17/2021 10:25	pH	8.27	SU
GS-AP-MW-36H	2/17/2021 10:25	Temperature	13.02	C
GS-AP-MW-36H	2/17/2021 10:25	Turbidity	4.73	NTU
GS-AP-MW-36H	2/17/2021 10:30	Conductivity	400.39	uS/cm
GS-AP-MW-36H	2/17/2021 10:30	DO	0.7	mg/L
GS-AP-MW-36H	2/17/2021 10:30	Depth to Water Detail	231.88	ft
GS-AP-MW-36H	2/17/2021 10:30	Oxidation Reduction Potention	-136.92	mv
GS-AP-MW-36H	2/17/2021 10:30	pH	8.28	SU
GS-AP-MW-36H	2/17/2021 10:30	Temperature	13.82	C
GS-AP-MW-36H	2/17/2021 10:30	Turbidity	4.62	NTU
GS-AP-MW-36H	2/17/2021 10:35	Conductivity	399.62	uS/cm
GS-AP-MW-36H	2/17/2021 10:35	DO	0.62	mg/L
GS-AP-MW-36H	2/17/2021 10:35	Depth to Water Detail	232.19	ft
GS-AP-MW-36H	2/17/2021 10:35	Oxidation Reduction Potention	-145.11	mv
GS-AP-MW-36H	2/17/2021 10:35	pH	8.28	SU
GS-AP-MW-36H	2/17/2021 10:35	Temperature	13.75	C
GS-AP-MW-36H	2/17/2021 10:35	Turbidity	5.33	NTU
GS-AP-MW-36H	2/17/2021 10:40	Conductivity	392.84	uS/cm
GS-AP-MW-36H	2/17/2021 10:40	DO	0.52	mg/L
GS-AP-MW-36H	2/17/2021 10:40	Depth to Water Detail	232.55	ft
GS-AP-MW-36H	2/17/2021 10:40	Oxidation Reduction Potention	-153.07	mv
GS-AP-MW-36H	2/17/2021 10:40	pH	8.31	SU
GS-AP-MW-36H	2/17/2021 10:40	Temperature	14.17	C
GS-AP-MW-36H	2/17/2021 10:40	Turbidity	4.8	NTU
GS-AP-MW-36H	2/17/2021 10:45	Conductivity	392.86	uS/cm
GS-AP-MW-36H	2/17/2021 10:45	DO	0.5	mg/L
GS-AP-MW-36H	2/17/2021 10:45	Depth to Water Detail	232.77	ft
GS-AP-MW-36H	2/17/2021 10:45	Oxidation Reduction Potention	-156.59	mv
GS-AP-MW-36H	2/17/2021 10:45	pH	8.3	SU
GS-AP-MW-36H	2/17/2021 10:45	Temperature	13.79	C
GS-AP-MW-36H	2/17/2021 10:45	Turbidity	4.51	NTU
GS-AP-MW-36H	2/17/2021 10:50	Conductivity	384.43	uS/cm
GS-AP-MW-36H	2/17/2021 10:50	DO	0.48	mg/L
GS-AP-MW-36H	2/17/2021 10:50	Depth to Water Detail	233.01	ft
GS-AP-MW-36H	2/17/2021 10:50	Oxidation Reduction Potention	-160.38	mv
GS-AP-MW-36H	2/17/2021 10:50	pH	8.33	SU
GS-AP-MW-36H	2/17/2021 10:50	Temperature	14.01	C
GS-AP-MW-36H	2/17/2021 10:50	Turbidity	3.71	NTU
GS-AP-MW-36H	2/17/2021 10:55	Conductivity	380.61	uS/cm
GS-AP-MW-36H	2/17/2021 10:55	DO	0.45	mg/L
GS-AP-MW-36H	2/17/2021 10:55	Depth to Water Detail	233.23	ft
GS-AP-MW-36H	2/17/2021 10:55	Oxidation Reduction Potention	-162.81	mv
GS-AP-MW-36H	2/17/2021 10:55	pH	8.31	SU
GS-AP-MW-36H	2/17/2021 10:55	Temperature	14.42	C
GS-AP-MW-36H	2/17/2021 10:55	Turbidity	4.04	NTU
GS-AP-MW-36H	2/17/2021 11:00	Conductivity	378.66	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-36H	2/17/2021 11:00	DO	0.44	mg/L
GS-AP-MW-36H	2/17/2021 11:00	Depth to Water Detail	233.46	ft
GS-AP-MW-36H	2/17/2021 11:00	Oxidation Reduction Potention	-166.16	mv
GS-AP-MW-36H	2/17/2021 11:00	pH	8.34	SU
GS-AP-MW-36H	2/17/2021 11:00	Temperature	14.4	C
GS-AP-MW-36H	2/17/2021 11:00	Turbidity	4.14	NTU
GS-AP-MW-36H	2/17/2021 11:05	Conductivity	372.74	uS/cm
GS-AP-MW-36H	2/17/2021 11:05	DO	0.41	mg/L
GS-AP-MW-36H	2/17/2021 11:05	Depth to Water Detail	233.66	ft
GS-AP-MW-36H	2/17/2021 11:05	Oxidation Reduction Potention	-168.01	mv
GS-AP-MW-36H	2/17/2021 11:05	pH	8.33	SU
GS-AP-MW-36H	2/17/2021 11:05	Temperature	14.19	C
GS-AP-MW-36H	2/17/2021 11:05	Turbidity	3.42	NTU
GS-AP-MW-36H	2/17/2021 11:10	Conductivity	370.97	uS/cm
GS-AP-MW-36H	2/17/2021 11:10	DO	0.42	mg/L
GS-AP-MW-36H	2/17/2021 11:10	Depth to Water Detail	233.88	ft
GS-AP-MW-36H	2/17/2021 11:10	Oxidation Reduction Potention	-169.23	mv
GS-AP-MW-36H	2/17/2021 11:10	pH	8.35	SU
GS-AP-MW-36H	2/17/2021 11:10	Temperature	14.12	C
GS-AP-MW-36H	2/17/2021 11:10	Turbidity	3.27	NTU
GS-AP-MW-36H	2/17/2021 11:15	Conductivity	439.95	uS/cm
GS-AP-MW-36H	2/17/2021 11:15	DO	0.4	mg/L
GS-AP-MW-36H	2/17/2021 11:15	Depth to Water Detail	234	ft
GS-AP-MW-36H	2/17/2021 11:15	Oxidation Reduction Potention	-170.42	mv
GS-AP-MW-36H	2/17/2021 11:15	pH	8.34	SU
GS-AP-MW-36H	2/17/2021 11:15	Temperature	14.27	C
GS-AP-MW-36H	2/17/2021 11:15	Turbidity	3.65	NTU
GS-AP-MW-36H	2/17/2021 11:20	Conductivity	439.26	uS/cm
GS-AP-MW-36H	2/17/2021 11:20	DO	0.4	mg/L
GS-AP-MW-36H	2/17/2021 11:20	Depth to Water Detail	234.17	ft
GS-AP-MW-36H	2/17/2021 11:20	Oxidation Reduction Potention	-169.23	mv
GS-AP-MW-36H	2/17/2021 11:20	pH	8.31	SU
GS-AP-MW-36H	2/17/2021 11:20	Temperature	13.95	C
GS-AP-MW-36H	2/17/2021 11:20	Turbidity	3.66	NTU
GS-AP-MW-36H	2/17/2021 11:25	Conductivity	429.38	uS/cm
GS-AP-MW-36H	2/17/2021 11:25	DO	0.4	mg/L
GS-AP-MW-36H	2/17/2021 11:25	Depth to Water Detail	234.28	ft
GS-AP-MW-36H	2/17/2021 11:25	Oxidation Reduction Potention	-172.2	mv
GS-AP-MW-36H	2/17/2021 11:25	pH	8.36	SU
GS-AP-MW-36H	2/17/2021 11:25	Temperature	14.17	C
GS-AP-MW-36H	2/17/2021 11:25	Turbidity	3.5	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-3	2/17/2021 11:27	Conductivity	441.14	uS/cm
GS-AP-MW-3	2/17/2021 11:27	DO	0.27	mg/L
GS-AP-MW-3	2/17/2021 11:27	Depth to Water Detail	144.21	ft
GS-AP-MW-3	2/17/2021 11:27	Oxidation Reduction Potention	-121.45	mv
GS-AP-MW-3	2/17/2021 11:27	pH	8.25	SU
GS-AP-MW-3	2/17/2021 11:27	Temperature	16.29	C
GS-AP-MW-3	2/17/2021 11:27	Turbidity	2.62	NTU
GS-AP-MW-3	2/17/2021 11:32	Conductivity	441.16	uS/cm
GS-AP-MW-3	2/17/2021 11:32	DO	0.2	mg/L
GS-AP-MW-3	2/17/2021 11:32	Depth to Water Detail	146.71	ft
GS-AP-MW-3	2/17/2021 11:32	Oxidation Reduction Potention	-134.61	mv
GS-AP-MW-3	2/17/2021 11:32	pH	8.31	SU
GS-AP-MW-3	2/17/2021 11:32	Temperature	16.28	C
GS-AP-MW-3	2/17/2021 11:32	Turbidity	2.02	NTU
GS-AP-MW-3	2/17/2021 11:37	Conductivity	441.81	uS/cm
GS-AP-MW-3	2/17/2021 11:37	DO	0.17	mg/L
GS-AP-MW-3	2/17/2021 11:37	Depth to Water Detail	149.18	ft
GS-AP-MW-3	2/17/2021 11:37	Oxidation Reduction Potention	-148.06	mv
GS-AP-MW-3	2/17/2021 11:37	pH	8.32	SU
GS-AP-MW-3	2/17/2021 11:37	Temperature	16.35	C
GS-AP-MW-3	2/17/2021 11:37	Turbidity	1.87	NTU
GS-AP-MW-3	2/17/2021 11:42	Conductivity	445.78	uS/cm
GS-AP-MW-3	2/17/2021 11:42	DO	0.15	mg/L
GS-AP-MW-3	2/17/2021 11:42	Depth to Water Detail	150.22	ft
GS-AP-MW-3	2/17/2021 11:42	Oxidation Reduction Potention	-164.6	mv
GS-AP-MW-3	2/17/2021 11:42	pH	8.34	SU
GS-AP-MW-3	2/17/2021 11:42	Temperature	16.34	C
GS-AP-MW-3	2/17/2021 11:42	Turbidity	2.12	NTU
GS-AP-MW-3	2/17/2021 11:47	Conductivity	456.44	uS/cm
GS-AP-MW-3	2/17/2021 11:47	DO	0.14	mg/L
GS-AP-MW-3	2/17/2021 11:47	Depth to Water Detail	152.37	ft
GS-AP-MW-3	2/17/2021 11:47	Oxidation Reduction Potention	-188.75	mv
GS-AP-MW-3	2/17/2021 11:47	pH	8.26	SU
GS-AP-MW-3	2/17/2021 11:47	Temperature	16.35	C
GS-AP-MW-3	2/17/2021 11:47	Turbidity	2.37	NTU
GS-AP-MW-3	2/17/2021 11:52	Conductivity	466	uS/cm
GS-AP-MW-3	2/17/2021 11:52	DO	0.17	mg/L
GS-AP-MW-3	2/17/2021 11:52	Depth to Water Detail	152.72	ft
GS-AP-MW-3	2/17/2021 11:52	Oxidation Reduction Potention	-199.4	mv
GS-AP-MW-3	2/17/2021 11:52	pH	8.23	SU
GS-AP-MW-3	2/17/2021 11:52	Temperature	15.97	C
GS-AP-MW-3	2/17/2021 11:52	Turbidity	2.2	NTU
GS-AP-MW-3	2/17/2021 11:57	Conductivity	470.02	uS/cm
GS-AP-MW-3	2/17/2021 11:57	DO	0.48	mg/L
GS-AP-MW-3	2/17/2021 11:57	Depth to Water Detail	151.81	ft
GS-AP-MW-3	2/17/2021 11:57	Oxidation Reduction Potention	-188.19	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-3	2/17/2021 11:57	pH	8.17	SU
GS-AP-MW-3	2/17/2021 11:57	Temperature	14.86	C
GS-AP-MW-3	2/17/2021 11:57	Turbidity	2.04	NTU
GS-AP-MW-3	2/17/2021 12:02	Conductivity	483.74	uS/cm
GS-AP-MW-3	2/17/2021 12:02	DO	0.53	mg/L
GS-AP-MW-3	2/17/2021 12:02	Depth to Water Detail	150.96	ft
GS-AP-MW-3	2/17/2021 12:02	Oxidation Reduction Potention	-190.56	mv
GS-AP-MW-3	2/17/2021 12:02	pH	8.15	SU
GS-AP-MW-3	2/17/2021 12:02	Temperature	14.83	C
GS-AP-MW-3	2/17/2021 12:02	Turbidity	1.52	NTU
GS-AP-MW-3	2/17/2021 12:07	Conductivity	495	uS/cm
GS-AP-MW-3	2/17/2021 12:07	DO	0.53	mg/L
GS-AP-MW-3	2/17/2021 12:07	Depth to Water Detail	150.33	ft
GS-AP-MW-3	2/17/2021 12:07	Oxidation Reduction Potention	-196.59	mv
GS-AP-MW-3	2/17/2021 12:07	pH	8.13	SU
GS-AP-MW-3	2/17/2021 12:07	Temperature	14.75	C
GS-AP-MW-3	2/17/2021 12:07	Turbidity	1.2	NTU
GS-AP-MW-3	2/17/2021 12:12	Conductivity	517.27	uS/cm
GS-AP-MW-3	2/17/2021 12:12	DO	0.52	mg/L
GS-AP-MW-3	2/17/2021 12:12	Depth to Water Detail	150.33	ft
GS-AP-MW-3	2/17/2021 12:12	Oxidation Reduction Potention	-194	mv
GS-AP-MW-3	2/17/2021 12:12	pH	8.04	SU
GS-AP-MW-3	2/17/2021 12:12	Temperature	14.73	C
GS-AP-MW-3	2/17/2021 12:12	Turbidity	0.89	NTU
GS-AP-MW-3	2/17/2021 12:17	Conductivity	534	uS/cm
GS-AP-MW-3	2/17/2021 12:17	DO	0.55	mg/L
GS-AP-MW-3	2/17/2021 12:17	Depth to Water Detail	149.24	ft
GS-AP-MW-3	2/17/2021 12:17	Oxidation Reduction Potention	-171	mv
GS-AP-MW-3	2/17/2021 12:17	pH	7.95	SU
GS-AP-MW-3	2/17/2021 12:17	Temperature	14.63	C
GS-AP-MW-3	2/17/2021 12:17	Turbidity	1.79	NTU
GS-AP-MW-3	2/17/2021 12:22	Conductivity	554.29	uS/cm
GS-AP-MW-3	2/17/2021 12:22	DO	0.51	mg/L
GS-AP-MW-3	2/17/2021 12:22	Depth to Water Detail	148.59	ft
GS-AP-MW-3	2/17/2021 12:22	Oxidation Reduction Potention	-186.47	mv
GS-AP-MW-3	2/17/2021 12:22	pH	7.89	SU
GS-AP-MW-3	2/17/2021 12:22	Temperature	14.75	C
GS-AP-MW-3	2/17/2021 12:22	Turbidity	1.15	NTU
GS-AP-MW-3	2/17/2021 12:27	Conductivity	566.24	uS/cm
GS-AP-MW-3	2/17/2021 12:27	DO	0.51	mg/L
GS-AP-MW-3	2/17/2021 12:27	Depth to Water Detail	148.5	ft
GS-AP-MW-3	2/17/2021 12:27	Oxidation Reduction Potention	-183.62	mv
GS-AP-MW-3	2/17/2021 12:27	pH	7.84	SU
GS-AP-MW-3	2/17/2021 12:27	Temperature	14.72	C
GS-AP-MW-3	2/17/2021 12:27	Turbidity	0.72	NTU
GS-AP-MW-3	2/17/2021 12:32	Conductivity	582.26	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-3	2/17/2021 12:32	DO	0.5	mg/L
GS-AP-MW-3	2/17/2021 12:32	Depth to Water Detail	148.21	ft
GS-AP-MW-3	2/17/2021 12:32	Oxidation Reduction Potention	-179.11	mv
GS-AP-MW-3	2/17/2021 12:32	pH	7.8	SU
GS-AP-MW-3	2/17/2021 12:32	Temperature	14.7	C
GS-AP-MW-3	2/17/2021 12:32	Turbidity	0.73	NTU
GS-AP-MW-3	2/17/2021 12:37	Conductivity	597.81	uS/cm
GS-AP-MW-3	2/17/2021 12:37	DO	0.49	mg/L
GS-AP-MW-3	2/17/2021 12:37	Depth to Water Detail	147.71	ft
GS-AP-MW-3	2/17/2021 12:37	Oxidation Reduction Potention	-174.63	mv
GS-AP-MW-3	2/17/2021 12:37	pH	7.73	SU
GS-AP-MW-3	2/17/2021 12:37	Temperature	14.87	C
GS-AP-MW-3	2/17/2021 12:37	Turbidity	0.59	NTU
GS-AP-MW-3	2/17/2021 12:42	Conductivity	607.84	uS/cm
GS-AP-MW-3	2/17/2021 12:42	DO	0.49	mg/L
GS-AP-MW-3	2/17/2021 12:42	Depth to Water Detail	147.52	ft
GS-AP-MW-3	2/17/2021 12:42	Oxidation Reduction Potention	-172.56	mv
GS-AP-MW-3	2/17/2021 12:42	pH	7.71	SU
GS-AP-MW-3	2/17/2021 12:42	Temperature	14.85	C
GS-AP-MW-3	2/17/2021 12:42	Turbidity	0.5	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-16	2/17/2021 10:03	Conductivity	645.88	uS/cm
GS-AP-PZ-16	2/17/2021 10:03	DO	0.37	mg/L
GS-AP-PZ-16	2/17/2021 10:03	Depth to Water Detail	167.07	ft
GS-AP-PZ-16	2/17/2021 10:03	Oxidation Reduction Potention	-56.97	mv
GS-AP-PZ-16	2/17/2021 10:03	pH	9.01	SU
GS-AP-PZ-16	2/17/2021 10:03	Temperature	16.22	C
GS-AP-PZ-16	2/17/2021 10:03	Turbidity	13.08	NTU
GS-AP-PZ-16	2/17/2021 10:08	Conductivity	644.62	uS/cm
GS-AP-PZ-16	2/17/2021 10:08	DO	0.31	mg/L
GS-AP-PZ-16	2/17/2021 10:08	Depth to Water Detail	167.07	ft
GS-AP-PZ-16	2/17/2021 10:08	Oxidation Reduction Potention	-89.97	mv
GS-AP-PZ-16	2/17/2021 10:08	pH	8.89	SU
GS-AP-PZ-16	2/17/2021 10:08	Temperature	16.32	C
GS-AP-PZ-16	2/17/2021 10:08	Turbidity	10.05	NTU
GS-AP-PZ-16	2/17/2021 10:13	Conductivity	642.27	uS/cm
GS-AP-PZ-16	2/17/2021 10:13	DO	0.26	mg/L
GS-AP-PZ-16	2/17/2021 10:13	Depth to Water Detail	167.07	ft
GS-AP-PZ-16	2/17/2021 10:13	Oxidation Reduction Potention	-123.62	mv
GS-AP-PZ-16	2/17/2021 10:13	pH	8.85	SU
GS-AP-PZ-16	2/17/2021 10:13	Temperature	16.36	C
GS-AP-PZ-16	2/17/2021 10:13	Turbidity	7.4	NTU
GS-AP-PZ-16	2/17/2021 10:18	Conductivity	645.42	uS/cm
GS-AP-PZ-16	2/17/2021 10:18	DO	0.23	mg/L
GS-AP-PZ-16	2/17/2021 10:18	Depth to Water Detail	167.07	ft
GS-AP-PZ-16	2/17/2021 10:18	Oxidation Reduction Potention	-152.97	mv
GS-AP-PZ-16	2/17/2021 10:18	pH	8.64	SU
GS-AP-PZ-16	2/17/2021 10:18	Temperature	16.35	C
GS-AP-PZ-16	2/17/2021 10:18	Turbidity	8.07	NTU
GS-AP-PZ-16	2/17/2021 10:23	Conductivity	645.73	uS/cm
GS-AP-PZ-16	2/17/2021 10:23	DO	0.21	mg/L
GS-AP-PZ-16	2/17/2021 10:23	Depth to Water Detail	167.07	ft
GS-AP-PZ-16	2/17/2021 10:23	Oxidation Reduction Potention	-176.13	mv
GS-AP-PZ-16	2/17/2021 10:23	pH	8.48	SU
GS-AP-PZ-16	2/17/2021 10:23	Temperature	16.43	C
GS-AP-PZ-16	2/17/2021 10:23	Turbidity	5.86	NTU
GS-AP-PZ-16	2/17/2021 10:28	Conductivity	632.41	uS/cm
GS-AP-PZ-16	2/17/2021 10:28	DO	0.2	mg/L
GS-AP-PZ-16	2/17/2021 10:28	Depth to Water Detail	167.07	ft
GS-AP-PZ-16	2/17/2021 10:28	Oxidation Reduction Potention	-184.55	mv
GS-AP-PZ-16	2/17/2021 10:28	pH	8.35	SU
GS-AP-PZ-16	2/17/2021 10:28	Temperature	16.39	C
GS-AP-PZ-16	2/17/2021 10:28	Turbidity	5.93	NTU
GS-AP-PZ-16	2/17/2021 10:33	Conductivity	630.32	uS/cm
GS-AP-PZ-16	2/17/2021 10:33	DO	0.19	mg/L
GS-AP-PZ-16	2/17/2021 10:33	Depth to Water Detail	167.07	ft
GS-AP-PZ-16	2/17/2021 10:33	Oxidation Reduction Potention	-188.97	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-16	2/17/2021 10:33	pH	8.32	SU
GS-AP-PZ-16	2/17/2021 10:33	Temperature	16.4	C
GS-AP-PZ-16	2/17/2021 10:33	Turbidity	4.53	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-43H	2/17/2021 13:47	Conductivity	1364.12	uS/cm
GS-AP-MW-43H	2/17/2021 13:47	DO	4.1	mg/L
GS-AP-MW-43H	2/17/2021 13:47	Depth to Water Detail	149.82	ft
GS-AP-MW-43H	2/17/2021 13:47	Oxidation Reduction Potention	-191.8	mv
GS-AP-MW-43H	2/17/2021 13:47	pH	8.27	SU
GS-AP-MW-43H	2/17/2021 13:47	Temperature	13.84	C
GS-AP-MW-43H	2/17/2021 13:47	Turbidity	2.86	NTU
GS-AP-MW-43H	2/17/2021 13:52	Conductivity	1378.96	uS/cm
GS-AP-MW-43H	2/17/2021 13:52	DO	1.43	mg/L
GS-AP-MW-43H	2/17/2021 13:52	Depth to Water Detail	150.22	ft
GS-AP-MW-43H	2/17/2021 13:52	Oxidation Reduction Potention	-275.41	mv
GS-AP-MW-43H	2/17/2021 13:52	pH	8.63	SU
GS-AP-MW-43H	2/17/2021 13:52	Temperature	14.37	C
GS-AP-MW-43H	2/17/2021 13:52	Turbidity	3.17	NTU
GS-AP-MW-43H	2/17/2021 13:57	Conductivity	1401.61	uS/cm
GS-AP-MW-43H	2/17/2021 13:57	DO	0.84	mg/L
GS-AP-MW-43H	2/17/2021 13:57	Depth to Water Detail	150.59	ft
GS-AP-MW-43H	2/17/2021 13:57	Oxidation Reduction Potention	-290.58	mv
GS-AP-MW-43H	2/17/2021 13:57	pH	8.7	SU
GS-AP-MW-43H	2/17/2021 13:57	Temperature	14.47	C
GS-AP-MW-43H	2/17/2021 13:57	Turbidity	3.69	NTU
GS-AP-MW-43H	2/17/2021 14:02	Conductivity	1408.29	uS/cm
GS-AP-MW-43H	2/17/2021 14:02	DO	0.68	mg/L
GS-AP-MW-43H	2/17/2021 14:02	Depth to Water Detail	150.81	ft
GS-AP-MW-43H	2/17/2021 14:02	Oxidation Reduction Potention	-295.99	mv
GS-AP-MW-43H	2/17/2021 14:02	pH	8.72	SU
GS-AP-MW-43H	2/17/2021 14:02	Temperature	14.35	C
GS-AP-MW-43H	2/17/2021 14:02	Turbidity	2.84	NTU
GS-AP-MW-43H	2/17/2021 14:07	Conductivity	1413.77	uS/cm
GS-AP-MW-43H	2/17/2021 14:07	DO	0.61	mg/L
GS-AP-MW-43H	2/17/2021 14:07	Depth to Water Detail	150.98	ft
GS-AP-MW-43H	2/17/2021 14:07	Oxidation Reduction Potention	-299.65	mv
GS-AP-MW-43H	2/17/2021 14:07	pH	8.72	SU
GS-AP-MW-43H	2/17/2021 14:07	Temperature	14.57	C
GS-AP-MW-43H	2/17/2021 14:07	Turbidity	2.21	NTU
GS-AP-MW-43H	2/17/2021 14:12	Conductivity	1415.44	uS/cm
GS-AP-MW-43H	2/17/2021 14:12	DO	0.55	mg/L
GS-AP-MW-43H	2/17/2021 14:12	Depth to Water Detail	151.14	ft
GS-AP-MW-43H	2/17/2021 14:12	Oxidation Reduction Potention	-303.16	mv
GS-AP-MW-43H	2/17/2021 14:12	pH	8.73	SU
GS-AP-MW-43H	2/17/2021 14:12	Temperature	14.7	C
GS-AP-MW-43H	2/17/2021 14:12	Turbidity	1.9	NTU
GS-AP-MW-43H	2/17/2021 14:17	Conductivity	1411.83	uS/cm
GS-AP-MW-43H	2/17/2021 14:17	DO	0.53	mg/L
GS-AP-MW-43H	2/17/2021 14:17	Depth to Water Detail	151.21	ft
GS-AP-MW-43H	2/17/2021 14:17	Oxidation Reduction Potention	-304.8	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-43H	2/17/2021 14:17	pH	8.72	SU
GS-AP-MW-43H	2/17/2021 14:17	Temperature	14.51	C
GS-AP-MW-43H	2/17/2021 14:17	Turbidity	1.63	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-44HO	2/3/2021 9:34	Conductivity	3653.4	uS/cm
GS-AP-MW-44HO	2/3/2021 9:34	DO	0.39	mg/L
GS-AP-MW-44HO	2/3/2021 9:34	Depth to Water Detail	144.73	ft
GS-AP-MW-44HO	2/3/2021 9:34	Oxidation Reduction Potention	-196.87	mv
GS-AP-MW-44HO	2/3/2021 9:34	pH	7.99	SU
GS-AP-MW-44HO	2/3/2021 9:34	Temperature	16.11	C
GS-AP-MW-44HO	2/3/2021 9:34	Turbidity	10.67	NTU
GS-AP-MW-44HO	2/3/2021 9:39	Conductivity	1780.24	uS/cm
GS-AP-MW-44HO	2/3/2021 9:39	DO	0.28	mg/L
GS-AP-MW-44HO	2/3/2021 9:39	Depth to Water Detail	147.65	ft
GS-AP-MW-44HO	2/3/2021 9:39	Oxidation Reduction Potention	-257.19	mv
GS-AP-MW-44HO	2/3/2021 9:39	pH	8.6	SU
GS-AP-MW-44HO	2/3/2021 9:39	Temperature	15.79	C
GS-AP-MW-44HO	2/3/2021 9:39	Turbidity	2.21	NTU
GS-AP-MW-44HO	2/3/2021 9:44	Conductivity	1661.49	uS/cm
GS-AP-MW-44HO	2/3/2021 9:44	DO	0.21	mg/L
GS-AP-MW-44HO	2/3/2021 9:44	Depth to Water Detail	150.08	ft
GS-AP-MW-44HO	2/3/2021 9:44	Oxidation Reduction Potention	-270.21	mv
GS-AP-MW-44HO	2/3/2021 9:44	pH	8.66	SU
GS-AP-MW-44HO	2/3/2021 9:44	Temperature	16.14	C
GS-AP-MW-44HO	2/3/2021 9:44	Turbidity	2.23	NTU
GS-AP-MW-44HO	2/3/2021 9:49	Conductivity	1554.16	uS/cm
GS-AP-MW-44HO	2/3/2021 9:49	DO	0.18	mg/L
GS-AP-MW-44HO	2/3/2021 9:49	Depth to Water Detail	152.26	ft
GS-AP-MW-44HO	2/3/2021 9:49	Oxidation Reduction Potention	-278.47	mv
GS-AP-MW-44HO	2/3/2021 9:49	pH	8.7	SU
GS-AP-MW-44HO	2/3/2021 9:49	Temperature	16.29	C
GS-AP-MW-44HO	2/3/2021 9:49	Turbidity	2.97	NTU
GS-AP-MW-44HO	2/3/2021 9:54	Conductivity	1428.15	uS/cm
GS-AP-MW-44HO	2/3/2021 9:54	DO	0.16	mg/L
GS-AP-MW-44HO	2/3/2021 9:54	Depth to Water Detail	154.04	ft
GS-AP-MW-44HO	2/3/2021 9:54	Oxidation Reduction Potention	-284.17	mv
GS-AP-MW-44HO	2/3/2021 9:54	pH	8.75	SU
GS-AP-MW-44HO	2/3/2021 9:54	Temperature	15.89	C
GS-AP-MW-44HO	2/3/2021 9:54	Turbidity	3.35	NTU
GS-AP-MW-44HO	2/3/2021 9:59	Conductivity	1228.56	uS/cm
GS-AP-MW-44HO	2/3/2021 9:59	DO	0.14	mg/L
GS-AP-MW-44HO	2/3/2021 9:59	Depth to Water Detail	155.72	ft
GS-AP-MW-44HO	2/3/2021 9:59	Oxidation Reduction Potention	-288.08	mv
GS-AP-MW-44HO	2/3/2021 9:59	pH	8.81	SU
GS-AP-MW-44HO	2/3/2021 9:59	Temperature	16.29	C
GS-AP-MW-44HO	2/3/2021 9:59	Turbidity	3.79	NTU
GS-AP-MW-44HO	2/3/2021 10:04	Conductivity	1133.09	uS/cm
GS-AP-MW-44HO	2/3/2021 10:04	DO	0.14	mg/L
GS-AP-MW-44HO	2/3/2021 10:04	Depth to Water Detail	155.72	ft
GS-AP-MW-44HO	2/3/2021 10:04	Oxidation Reduction Potention	-288.82	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-44HO	2/3/2021 10:04	pH	8.83	SU
GS-AP-MW-44HO	2/3/2021 10:04	Temperature	16.38	C
GS-AP-MW-44HO	2/3/2021 10:04	Turbidity	4.15	NTU
GS-AP-MW-44HO	2/3/2021 10:09	Conductivity	1082.78	uS/cm
GS-AP-MW-44HO	2/3/2021 10:09	DO	0.11	mg/L
GS-AP-MW-44HO	2/3/2021 10:09	Depth to Water Detail	158.38	ft
GS-AP-MW-44HO	2/3/2021 10:09	Oxidation Reduction Potention	-289.03	mv
GS-AP-MW-44HO	2/3/2021 10:09	pH	8.83	SU
GS-AP-MW-44HO	2/3/2021 10:09	Temperature	16.28	C
GS-AP-MW-44HO	2/3/2021 10:09	Turbidity	3.96	NTU
GS-AP-MW-44HO	2/3/2021 10:14	Conductivity	1033.45	uS/cm
GS-AP-MW-44HO	2/3/2021 10:14	DO	0.19	mg/L
GS-AP-MW-44HO	2/3/2021 10:14	Depth to Water Detail	159.73	ft
GS-AP-MW-44HO	2/3/2021 10:14	Oxidation Reduction Potention	-286.16	mv
GS-AP-MW-44HO	2/3/2021 10:14	pH	8.86	SU
GS-AP-MW-44HO	2/3/2021 10:14	Temperature	15.47	C
GS-AP-MW-44HO	2/3/2021 10:14	Turbidity	3.62	NTU
GS-AP-MW-44HO	2/3/2021 10:19	Conductivity	1037.16	uS/cm
GS-AP-MW-44HO	2/3/2021 10:19	DO	0.22	mg/L
GS-AP-MW-44HO	2/3/2021 10:19	Depth to Water Detail	159.5	ft
GS-AP-MW-44HO	2/3/2021 10:19	Oxidation Reduction Potention	-283.04	mv
GS-AP-MW-44HO	2/3/2021 10:19	pH	8.87	SU
GS-AP-MW-44HO	2/3/2021 10:19	Temperature	15.11	C
GS-AP-MW-44HO	2/3/2021 10:19	Turbidity	3.67	NTU
GS-AP-MW-44HO	2/3/2021 10:24	Conductivity	1119.46	uS/cm
GS-AP-MW-44HO	2/3/2021 10:24	DO	0.24	mg/L
GS-AP-MW-44HO	2/3/2021 10:24	Depth to Water Detail	159.5	ft
GS-AP-MW-44HO	2/3/2021 10:24	Oxidation Reduction Potention	-286.02	mv
GS-AP-MW-44HO	2/3/2021 10:24	pH	8.88	SU
GS-AP-MW-44HO	2/3/2021 10:24	Temperature	15.13	C
GS-AP-MW-44HO	2/3/2021 10:24	Turbidity	2.17	NTU
GS-AP-MW-44HO	2/3/2021 10:29	Conductivity	1106.89	uS/cm
GS-AP-MW-44HO	2/3/2021 10:29	DO	0.24	mg/L
GS-AP-MW-44HO	2/3/2021 10:29	Depth to Water Detail	159.3	ft
GS-AP-MW-44HO	2/3/2021 10:29	Oxidation Reduction Potention	-287.36	mv
GS-AP-MW-44HO	2/3/2021 10:29	pH	8.89	SU
GS-AP-MW-44HO	2/3/2021 10:29	Temperature	15.08	C
GS-AP-MW-44HO	2/3/2021 10:29	Turbidity	1.54	NTU
GS-AP-MW-44HO	2/3/2021 10:34	Conductivity	1070.92	uS/cm
GS-AP-MW-44HO	2/3/2021 10:34	DO	0.25	mg/L
GS-AP-MW-44HO	2/3/2021 10:34	Depth to Water Detail	159.19	ft
GS-AP-MW-44HO	2/3/2021 10:34	Oxidation Reduction Potention	-288.24	mv
GS-AP-MW-44HO	2/3/2021 10:34	pH	8.9	SU
GS-AP-MW-44HO	2/3/2021 10:34	Temperature	15.16	C
GS-AP-MW-44HO	2/3/2021 10:34	Turbidity	1.13	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-33HO	2/3/2021 12:29	Conductivity	826.31	uS/cm
GS-AP-MW-33HO	2/3/2021 12:29	DO	0.71	mg/L
GS-AP-MW-33HO	2/3/2021 12:29	Depth to Water Detail	231.12	ft
GS-AP-MW-33HO	2/3/2021 12:29	Oxidation Reduction Potention	-233.77	mv
GS-AP-MW-33HO	2/3/2021 12:29	pH	7.69	SU
GS-AP-MW-33HO	2/3/2021 12:29	Temperature	16.24	C
GS-AP-MW-33HO	2/3/2021 12:29	Turbidity	1.21	NTU
GS-AP-MW-33HO	2/3/2021 12:34	Conductivity	855.03	uS/cm
GS-AP-MW-33HO	2/3/2021 12:34	DO	0.47	mg/L
GS-AP-MW-33HO	2/3/2021 12:34	Depth to Water Detail	232.25	ft
GS-AP-MW-33HO	2/3/2021 12:34	Oxidation Reduction Potention	-248.82	mv
GS-AP-MW-33HO	2/3/2021 12:34	pH	7.68	SU
GS-AP-MW-33HO	2/3/2021 12:34	Temperature	16.17	C
GS-AP-MW-33HO	2/3/2021 12:34	Turbidity	0.62	NTU
GS-AP-MW-33HO	2/3/2021 12:39	Conductivity	861.25	uS/cm
GS-AP-MW-33HO	2/3/2021 12:39	DO	0.37	mg/L
GS-AP-MW-33HO	2/3/2021 12:39	Depth to Water Detail	232.8	ft
GS-AP-MW-33HO	2/3/2021 12:39	Oxidation Reduction Potention	-260.24	mv
GS-AP-MW-33HO	2/3/2021 12:39	pH	7.66	SU
GS-AP-MW-33HO	2/3/2021 12:39	Temperature	16.07	C
GS-AP-MW-33HO	2/3/2021 12:39	Turbidity	0.51	NTU
GS-AP-MW-33HO	2/3/2021 12:44	Conductivity	868.07	uS/cm
GS-AP-MW-33HO	2/3/2021 12:44	DO	0.35	mg/L
GS-AP-MW-33HO	2/3/2021 12:44	Depth to Water Detail	233.3	ft
GS-AP-MW-33HO	2/3/2021 12:44	Oxidation Reduction Potention	-269.2	mv
GS-AP-MW-33HO	2/3/2021 12:44	pH	7.64	SU
GS-AP-MW-33HO	2/3/2021 12:44	Temperature	16.29	C
GS-AP-MW-33HO	2/3/2021 12:44	Turbidity	0.47	NTU
GS-AP-MW-33HO	2/3/2021 12:49	Conductivity	866.99	uS/cm
GS-AP-MW-33HO	2/3/2021 12:49	DO	0.29	mg/L
GS-AP-MW-33HO	2/3/2021 12:49	Depth to Water Detail	234.35	ft
GS-AP-MW-33HO	2/3/2021 12:49	Oxidation Reduction Potention	-275.89	mv
GS-AP-MW-33HO	2/3/2021 12:49	pH	7.64	SU
GS-AP-MW-33HO	2/3/2021 12:49	Temperature	16.35	C
GS-AP-MW-33HO	2/3/2021 12:49	Turbidity	0.33	NTU
GS-AP-MW-33HO	2/3/2021 12:54	Conductivity	865.93	uS/cm
GS-AP-MW-33HO	2/3/2021 12:54	DO	0.28	mg/L
GS-AP-MW-33HO	2/3/2021 12:54	Depth to Water Detail	235.03	ft
GS-AP-MW-33HO	2/3/2021 12:54	Oxidation Reduction Potention	-278.63	mv
GS-AP-MW-33HO	2/3/2021 12:54	pH	7.63	SU
GS-AP-MW-33HO	2/3/2021 12:54	Temperature	16.32	C
GS-AP-MW-33HO	2/3/2021 12:54	Turbidity	0.33	NTU
GS-AP-MW-33HO	2/3/2021 12:59	Conductivity	857.14	uS/cm
GS-AP-MW-33HO	2/3/2021 12:59	DO	0.28	mg/L
GS-AP-MW-33HO	2/3/2021 12:59	Depth to Water Detail	235.62	ft
GS-AP-MW-33HO	2/3/2021 12:59	Oxidation Reduction Potention	-279.65	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-33HO	2/3/2021 12:59	pH	7.63	SU
GS-AP-MW-33HO	2/3/2021 12:59	Temperature	16.27	C
GS-AP-MW-33HO	2/3/2021 12:59	Turbidity	0.3	NTU
GS-AP-MW-33HO	2/3/2021 13:04	Conductivity	860.94	uS/cm
GS-AP-MW-33HO	2/3/2021 13:04	DO	0.26	mg/L
GS-AP-MW-33HO	2/3/2021 13:04	Depth to Water Detail	236.2	ft
GS-AP-MW-33HO	2/3/2021 13:04	Oxidation Reduction Potention	-281.71	mv
GS-AP-MW-33HO	2/3/2021 13:04	pH	7.63	SU
GS-AP-MW-33HO	2/3/2021 13:04	Temperature	16.55	C
GS-AP-MW-33HO	2/3/2021 13:04	Turbidity	0.26	NTU
GS-AP-MW-33HO	2/3/2021 13:09	Conductivity	858.69	uS/cm
GS-AP-MW-33HO	2/3/2021 13:09	DO	0.42	mg/L
GS-AP-MW-33HO	2/3/2021 13:09	Depth to Water Detail	236.5	ft
GS-AP-MW-33HO	2/3/2021 13:09	Oxidation Reduction Potention	-275.06	mv
GS-AP-MW-33HO	2/3/2021 13:09	pH	7.63	SU
GS-AP-MW-33HO	2/3/2021 13:09	Temperature	16.19	C
GS-AP-MW-33HO	2/3/2021 13:09	Turbidity	0.45	NTU
GS-AP-MW-33HO	2/3/2021 13:14	Conductivity	856.49	uS/cm
GS-AP-MW-33HO	2/3/2021 13:14	DO	0.45	mg/L
GS-AP-MW-33HO	2/3/2021 13:14	Depth to Water Detail	236.68	ft
GS-AP-MW-33HO	2/3/2021 13:14	Oxidation Reduction Potention	-274.61	mv
GS-AP-MW-33HO	2/3/2021 13:14	pH	7.64	SU
GS-AP-MW-33HO	2/3/2021 13:14	Temperature	15.99	C
GS-AP-MW-33HO	2/3/2021 13:14	Turbidity	0.27	NTU
GS-AP-MW-33HO	2/3/2021 13:19	Conductivity	855.31	uS/cm
GS-AP-MW-33HO	2/3/2021 13:19	DO	0.46	mg/L
GS-AP-MW-33HO	2/3/2021 13:19	Depth to Water Detail	236.83	ft
GS-AP-MW-33HO	2/3/2021 13:19	Oxidation Reduction Potention	-274.86	mv
GS-AP-MW-33HO	2/3/2021 13:19	pH	7.64	SU
GS-AP-MW-33HO	2/3/2021 13:19	Temperature	15.82	C
GS-AP-MW-33HO	2/3/2021 13:19	Turbidity	0.37	NTU
GS-AP-MW-33HO	2/3/2021 13:24	Conductivity	850.79	uS/cm
GS-AP-MW-33HO	2/3/2021 13:24	DO	0.43	mg/L
GS-AP-MW-33HO	2/3/2021 13:24	Depth to Water Detail	236.96	ft
GS-AP-MW-33HO	2/3/2021 13:24	Oxidation Reduction Potention	-274.91	mv
GS-AP-MW-33HO	2/3/2021 13:24	pH	7.64	SU
GS-AP-MW-33HO	2/3/2021 13:24	Temperature	15.86	C
GS-AP-MW-33HO	2/3/2021 13:24	Turbidity	0.33	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-34HO	2/3/2021 15:09	Conductivity	3543.61	uS/cm
GS-AP-MW-34HO	2/3/2021 15:09	DO	3.98	mg/L
GS-AP-MW-34HO	2/3/2021 15:09	Depth to Water Detail	234.7	ft
GS-AP-MW-34HO	2/3/2021 15:09	Oxidation Reduction Potention	-41.16	mv
GS-AP-MW-34HO	2/3/2021 15:09	pH	6.78	SU
GS-AP-MW-34HO	2/3/2021 15:09	Temperature	17.1	C
GS-AP-MW-34HO	2/3/2021 15:09	Turbidity	4.95	NTU
GS-AP-MW-34HO	2/3/2021 15:14	Conductivity	3462.18	uS/cm
GS-AP-MW-34HO	2/3/2021 15:14	DO	1.04	mg/L
GS-AP-MW-34HO	2/3/2021 15:14	Depth to Water Detail	235.4	ft
GS-AP-MW-34HO	2/3/2021 15:14	Oxidation Reduction Potention	-288.08	mv
GS-AP-MW-34HO	2/3/2021 15:14	pH	7.13	SU
GS-AP-MW-34HO	2/3/2021 15:14	Temperature	16.76	C
GS-AP-MW-34HO	2/3/2021 15:14	Turbidity	2.72	NTU
GS-AP-MW-34HO	2/3/2021 15:19	Conductivity	4080.37	uS/cm
GS-AP-MW-34HO	2/3/2021 15:19	DO	0.38	mg/L
GS-AP-MW-34HO	2/3/2021 15:19	Depth to Water Detail	236.2	ft
GS-AP-MW-34HO	2/3/2021 15:19	Oxidation Reduction Potention	-315.25	mv
GS-AP-MW-34HO	2/3/2021 15:19	pH	7.44	SU
GS-AP-MW-34HO	2/3/2021 15:19	Temperature	16.55	C
GS-AP-MW-34HO	2/3/2021 15:19	Turbidity	2.36	NTU
GS-AP-MW-34HO	2/3/2021 15:24	Conductivity	4717.25	uS/cm
GS-AP-MW-34HO	2/3/2021 15:24	DO	0.33	mg/L
GS-AP-MW-34HO	2/3/2021 15:24	Depth to Water Detail	237.4	ft
GS-AP-MW-34HO	2/3/2021 15:24	Oxidation Reduction Potention	-288.93	mv
GS-AP-MW-34HO	2/3/2021 15:24	pH	7.32	SU
GS-AP-MW-34HO	2/3/2021 15:24	Temperature	16.77	C
GS-AP-MW-34HO	2/3/2021 15:24	Turbidity	4.38	NTU
GS-AP-MW-34HO	2/3/2021 15:29	Conductivity	4621.96	uS/cm
GS-AP-MW-34HO	2/3/2021 15:29	DO	0.33	mg/L
GS-AP-MW-34HO	2/3/2021 15:29	Depth to Water Detail	238.23	ft
GS-AP-MW-34HO	2/3/2021 15:29	Oxidation Reduction Potention	-285.41	mv
GS-AP-MW-34HO	2/3/2021 15:29	pH	7.28	SU
GS-AP-MW-34HO	2/3/2021 15:29	Temperature	16.61	C
GS-AP-MW-34HO	2/3/2021 15:29	Turbidity	4.52	NTU
GS-AP-MW-34HO	2/3/2021 15:34	Conductivity	4461.64	uS/cm
GS-AP-MW-34HO	2/3/2021 15:34	DO	0.32	mg/L
GS-AP-MW-34HO	2/3/2021 15:34	Depth to Water Detail	238.95	ft
GS-AP-MW-34HO	2/3/2021 15:34	Oxidation Reduction Potention	-289.68	mv
GS-AP-MW-34HO	2/3/2021 15:34	pH	7.28	SU
GS-AP-MW-34HO	2/3/2021 15:34	Temperature	16.41	C
GS-AP-MW-34HO	2/3/2021 15:34	Turbidity	3.73	NTU
GS-AP-MW-34HO	2/3/2021 15:39	Conductivity	4385.88	uS/cm
GS-AP-MW-34HO	2/3/2021 15:39	DO	0.3	mg/L
GS-AP-MW-34HO	2/3/2021 15:39	Depth to Water Detail	239.6	ft
GS-AP-MW-34HO	2/3/2021 15:39	Oxidation Reduction Potention	-292.53	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-34HO	2/3/2021 15:39	pH	7.28	SU
GS-AP-MW-34HO	2/3/2021 15:39	Temperature	16.48	C
GS-AP-MW-34HO	2/3/2021 15:39	Turbidity	2.98	NTU
GS-AP-MW-34HO	2/3/2021 15:44	Conductivity	4348.52	uS/cm
GS-AP-MW-34HO	2/3/2021 15:44	DO	0.3	mg/L
GS-AP-MW-34HO	2/3/2021 15:44	Depth to Water Detail	240.3	ft
GS-AP-MW-34HO	2/3/2021 15:44	Oxidation Reduction Potention	-293.55	mv
GS-AP-MW-34HO	2/3/2021 15:44	pH	7.28	SU
GS-AP-MW-34HO	2/3/2021 15:44	Temperature	16.2	C
GS-AP-MW-34HO	2/3/2021 15:44	Turbidity	2.52	NTU
GS-AP-MW-34HO	2/3/2021 15:49	Conductivity	4325	uS/cm
GS-AP-MW-34HO	2/3/2021 15:49	DO	0.3	mg/L
GS-AP-MW-34HO	2/3/2021 15:49	Depth to Water Detail	241.02	ft
GS-AP-MW-34HO	2/3/2021 15:49	Oxidation Reduction Potention	-293.54	mv
GS-AP-MW-34HO	2/3/2021 15:49	pH	7.27	SU
GS-AP-MW-34HO	2/3/2021 15:49	Temperature	16.17	C
GS-AP-MW-34HO	2/3/2021 15:49	Turbidity	2.27	NTU
GS-AP-MW-34HO	2/3/2021 15:54	Conductivity	4301.94	uS/cm
GS-AP-MW-34HO	2/3/2021 15:54	DO	0.29	mg/L
GS-AP-MW-34HO	2/3/2021 15:54	Depth to Water Detail	241.54	ft
GS-AP-MW-34HO	2/3/2021 15:54	Oxidation Reduction Potention	-294.07	mv
GS-AP-MW-34HO	2/3/2021 15:54	pH	7.26	SU
GS-AP-MW-34HO	2/3/2021 15:54	Temperature	16.22	C
GS-AP-MW-34HO	2/3/2021 15:54	Turbidity	2.21	NTU
GS-AP-MW-34HO	2/3/2021 15:59	Conductivity	4283.49	uS/cm
GS-AP-MW-34HO	2/3/2021 15:59	DO	0.3	mg/L
GS-AP-MW-34HO	2/3/2021 15:59	Depth to Water Detail	242.15	ft
GS-AP-MW-34HO	2/3/2021 15:59	Oxidation Reduction Potention	-293.56	mv
GS-AP-MW-34HO	2/3/2021 15:59	pH	7.26	SU
GS-AP-MW-34HO	2/3/2021 15:59	Temperature	16.21	C
GS-AP-MW-34HO	2/3/2021 15:59	Turbidity	1.97	NTU
GS-AP-MW-34HO	2/3/2021 16:04	Conductivity	4259.56	uS/cm
GS-AP-MW-34HO	2/3/2021 16:04	DO	0.62	mg/L
GS-AP-MW-34HO	2/3/2021 16:04	Depth to Water Detail	241.98	ft
GS-AP-MW-34HO	2/3/2021 16:04	Oxidation Reduction Potention	-284.84	mv
GS-AP-MW-34HO	2/3/2021 16:04	pH	7.27	SU
GS-AP-MW-34HO	2/3/2021 16:04	Temperature	15.37	C
GS-AP-MW-34HO	2/3/2021 16:04	Turbidity	1.85	NTU
GS-AP-MW-34HO	2/3/2021 16:09	Conductivity	4252.92	uS/cm
GS-AP-MW-34HO	2/3/2021 16:09	DO	0.66	mg/L
GS-AP-MW-34HO	2/3/2021 16:09	Depth to Water Detail	241.9	ft
GS-AP-MW-34HO	2/3/2021 16:09	Oxidation Reduction Potention	-282.71	mv
GS-AP-MW-34HO	2/3/2021 16:09	pH	7.26	SU
GS-AP-MW-34HO	2/3/2021 16:09	Temperature	15.25	C
GS-AP-MW-34HO	2/3/2021 16:09	Turbidity	1.9	NTU
GS-AP-MW-34HO	2/3/2021 16:14	Conductivity	4236.12	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-34HO	2/3/2021 16:14	DO	0.65	mg/L
GS-AP-MW-34HO	2/3/2021 16:14	Depth to Water Detail	241.9	ft
GS-AP-MW-34HO	2/3/2021 16:14	Oxidation Reduction Potention	-282.25	mv
GS-AP-MW-34HO	2/3/2021 16:14	pH	7.26	SU
GS-AP-MW-34HO	2/3/2021 16:14	Temperature	15.47	C
GS-AP-MW-34HO	2/3/2021 16:14	Turbidity	1.7	NTU
GS-AP-MW-34HO	2/3/2021 16:19	Conductivity	4220.34	uS/cm
GS-AP-MW-34HO	2/3/2021 16:19	DO	0.68	mg/L
GS-AP-MW-34HO	2/3/2021 16:19	Depth to Water Detail	241.9	ft
GS-AP-MW-34HO	2/3/2021 16:19	Oxidation Reduction Potention	-281.02	mv
GS-AP-MW-34HO	2/3/2021 16:19	pH	7.26	SU
GS-AP-MW-34HO	2/3/2021 16:19	Temperature	15.45	C
GS-AP-MW-34HO	2/3/2021 16:19	Turbidity	1.74	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-35HO	2/4/2021 6:54	Conductivity	541.16	uS/cm
GS-AP-MW-35HO	2/4/2021 6:54	DO	0.43	mg/L
GS-AP-MW-35HO	2/4/2021 6:54	Depth to Water Detail	254.67	ft
GS-AP-MW-35HO	2/4/2021 6:54	Oxidation Reduction Potention	-198.39	mv
GS-AP-MW-35HO	2/4/2021 6:54	pH	8.3	SU
GS-AP-MW-35HO	2/4/2021 6:54	Temperature	14.69	C
GS-AP-MW-35HO	2/4/2021 6:54	Turbidity	3.51	NTU
GS-AP-MW-35HO	2/4/2021 6:59	Conductivity	562.75	uS/cm
GS-AP-MW-35HO	2/4/2021 6:59	DO	0.42	mg/L
GS-AP-MW-35HO	2/4/2021 6:59	Depth to Water Detail	255.22	ft
GS-AP-MW-35HO	2/4/2021 6:59	Oxidation Reduction Potention	-201.42	mv
GS-AP-MW-35HO	2/4/2021 6:59	pH	8.32	SU
GS-AP-MW-35HO	2/4/2021 6:59	Temperature	14.5	C
GS-AP-MW-35HO	2/4/2021 6:59	Turbidity	3.01	NTU
GS-AP-MW-35HO	2/4/2021 7:04	Conductivity	562.26	uS/cm
GS-AP-MW-35HO	2/4/2021 7:04	DO	0.37	mg/L
GS-AP-MW-35HO	2/4/2021 7:04	Depth to Water Detail	255.88	ft
GS-AP-MW-35HO	2/4/2021 7:04	Oxidation Reduction Potention	-206.43	mv
GS-AP-MW-35HO	2/4/2021 7:04	pH	8.32	SU
GS-AP-MW-35HO	2/4/2021 7:04	Temperature	14.56	C
GS-AP-MW-35HO	2/4/2021 7:04	Turbidity	1.66	NTU
GS-AP-MW-35HO	2/4/2021 7:09	Conductivity	559.98	uS/cm
GS-AP-MW-35HO	2/4/2021 7:09	DO	0.33	mg/L
GS-AP-MW-35HO	2/4/2021 7:09	Depth to Water Detail	256.32	ft
GS-AP-MW-35HO	2/4/2021 7:09	Oxidation Reduction Potention	-211.12	mv
GS-AP-MW-35HO	2/4/2021 7:09	pH	8.32	SU
GS-AP-MW-35HO	2/4/2021 7:09	Temperature	14.58	C
GS-AP-MW-35HO	2/4/2021 7:09	Turbidity	1.43	NTU
GS-AP-MW-35HO	2/4/2021 7:14	Conductivity	558.7	uS/cm
GS-AP-MW-35HO	2/4/2021 7:14	DO	0.39	mg/L
GS-AP-MW-35HO	2/4/2021 7:14	Depth to Water Detail	256.51	ft
GS-AP-MW-35HO	2/4/2021 7:14	Oxidation Reduction Potention	-211.46	mv
GS-AP-MW-35HO	2/4/2021 7:14	pH	8.33	SU
GS-AP-MW-35HO	2/4/2021 7:14	Temperature	13.91	C
GS-AP-MW-35HO	2/4/2021 7:14	Turbidity	1.28	NTU
GS-AP-MW-35HO	2/4/2021 7:19	Conductivity	559.16	uS/cm
GS-AP-MW-35HO	2/4/2021 7:19	DO	0.39	mg/L
GS-AP-MW-35HO	2/4/2021 7:19	Depth to Water Detail	256.62	ft
GS-AP-MW-35HO	2/4/2021 7:19	Oxidation Reduction Potention	-213.96	mv
GS-AP-MW-35HO	2/4/2021 7:19	pH	8.33	SU
GS-AP-MW-35HO	2/4/2021 7:19	Temperature	13.92	C
GS-AP-MW-35HO	2/4/2021 7:19	Turbidity	1.11	NTU
GS-AP-MW-35HO	2/4/2021 7:24	Conductivity	557.2	uS/cm
GS-AP-MW-35HO	2/4/2021 7:24	DO	0.4	mg/L
GS-AP-MW-35HO	2/4/2021 7:24	Depth to Water Detail	256.72	ft
GS-AP-MW-35HO	2/4/2021 7:24	Oxidation Reduction Potention	-216.23	mv

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
GS-AP-MW-35HO	2/4/2021 7:24	pH	8.34	SU
GS-AP-MW-35HO	2/4/2021 7:24	Temperature	13.98	C
GS-AP-MW-35HO	2/4/2021 7:24	Turbidity	1.16	NTU
GS-AP-MW-35HO	2/4/2021 7:29	Conductivity	554.3	uS/cm
GS-AP-MW-35HO	2/4/2021 7:29	DO	0.39	mg/L
GS-AP-MW-35HO	2/4/2021 7:29	Depth to Water Detail	256.75	ft
GS-AP-MW-35HO	2/4/2021 7:29	Oxidation Reduction Potention	-218.74	mv
GS-AP-MW-35HO	2/4/2021 7:29	pH	8.35	SU
GS-AP-MW-35HO	2/4/2021 7:29	Temperature	13.84	C
GS-AP-MW-35HO	2/4/2021 7:29	Turbidity	1.01	NTU

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

2021 Compliance Event 2

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

Turbidity levels less than 10 NTU were not able to be achieved after extended pumping for well MW-12V. 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.

MW-18, MW-18V & PZ-18 were abandoned due to ash pond closure activities and, thus, were not sampled.

Large trucks and machinery were using the road near wells MW-12, MW-9V and MW-12V when pumping and sampling.

Rainy conditions were present when pumping and sampling wells MW-31H & MW-21V.

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_1333

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

September 10, 2021

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between July 28, 2021 and August 12, 2021. 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: 2021.09.10 13:00:50 -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: 2021.09.13 12:08:18 -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_1333

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>
BB13752	704354	WMWGORAP_1333
BB13753	704354	WMWGORAP_1333
BB13754	704354	WMWGORAP_1333
BB13755	704354	WMWGORAP_1333
BB13756	704354	WMWGORAP_1333
BB13757	704354	WMWGORAP_1333
BB14108	704354	WMWGORAP_1333
BB14109	704354	WMWGORAP_1333
BB14369	704354	WMWGORAP_1333
BB14370	704354	WMWGORAP_1333
BB14371	704355	WMWGORAP_1333
BB14372	704355	WMWGORAP_1333
BB14373	704355	WMWGORAP_1333
BB14374	704355	WMWGORAP_1333
BB14375	704355	WMWGORAP_1333
BB14376	704355	WMWGORAP_1333
BB14377	704355	WMWGORAP_1333
BB14378	704355	WMWGORAP_1333
BB14379	704355	WMWGORAP_1333
BB14380	704355	WMWGORAP_1333
BB14381	704356	WMWGORAP_1333
BB14382	704356	WMWGORAP_1333
BB14383	704356	WMWGORAP_1333
BB14384	704356	WMWGORAP_1333
BB14385	704356	WMWGORAP_1333
BB14386	704356	WMWGORAP_1333
BB14387	704356	WMWGORAP_1333
BB14388	704356	WMWGORAP_1333
BB14389	704356	WMWGORAP_1333
BB14812	706201	WMWGORAP_1333
BB14813	706201	WMWGORAP_1333

BB14814	706201	WMWGORAP_1333
BB14816	706201	WMWGORAP_1333
BB14817	706201	WMWGORAP_1333
BB14818	706201	WMWGORAP_1333
BB14819	706201	WMWGORAP_1333
BB14820	706201	WMWGORAP_1333
BB14821	706201	WMWGORAP_1333
BB14822	706201	WMWGORAP_1333
BB14823	706202	WMWGORAP_1333
BB14825	706202	WMWGORAP_1333
BB14826	706202	WMWGORAP_1333
BB14827	706202	WMWGORAP_1333
BB14828	706202	WMWGORAP_1333
BB14946	706202	WMWGORAP_1333
BB14947	706202	WMWGORAP_1333

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- 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:
 - BB14389 Sodium MS/MSD spike level was less than 30% of the sample concentration.
 - BB14947 Sodium MS/MSD spike level was less than 30% of the sample concentration.
 - 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>
BB13752	Calcium, Iron	10.15
BB13753	Calcium	10.15
BB13754	Calcium, Iron	20.3
BB13755	Calcium, Iron	20.3
BB13756	Calcium	10.15
BB14108	Calcium, Sodium	20.3
BB14109	Sodium	101.5
BB14369	Sodium	101.5
BB14370	Sodium	101.5
BB14371	Sodium	101.5
BB14372	Sodium	101.5
BB14373	Sodium	101.5
BB14374	Sodium	101.5
BB14375	Sodium	101.5
BB14376	Iron, Sodium	10.15
BB14378	Calcium	10.15
BB14379	Calcium	10.15
BB14380	Calcium	10.15
BB14381	Sodium	10.15
BB14382	Calcium, Iron, Magnesium	10.15
BB14383	Sodium	10.15
BB14384	Sodium	101.5
BB14385	Sodium	101.5
BB14387	Sodium	101.5
BB14388	Sodium	101.5

Case Narrative

BB14389	Sodium	101.5
BB14812	Calcium	10.15
BB14816	Calcium, Sodium	10.15
BB14817	Calcium, Sodium	10.15
BB14818	Calcium, Sodium	10.15
BB14820	Sodium	10.15
BB14821	Sodium	10.15
BB14822	Sodium	10.15
BB14823	Sodium	10.15
BB14825	Calcium, Magnesium, Sodium	10.15
BB14826	Sodium	10.15
BB14946	Sodium	10.15
BB14947	Sodium	10.15

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

Dissolved Metals ICP

Gorgas Ash Pond

WMWGORAP_1333

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>
BB13752	704327	WMWGORAP_1333
BB13753	704327	WMWGORAP_1333
BB13754	704327	WMWGORAP_1333
BB13755	704327	WMWGORAP_1333
BB13756	704327	WMWGORAP_1333
BB14108	704327	WMWGORAP_1333
BB14109	704327	WMWGORAP_1333
BB14369	704327	WMWGORAP_1333
BB14370	704327	WMWGORAP_1333
BB14371	704327	WMWGORAP_1333
BB14372	704328	WMWGORAP_1333
BB14373	704328	WMWGORAP_1333
BB14374	704328	WMWGORAP_1333
BB14375	704328	WMWGORAP_1333
BB14376	704328	WMWGORAP_1333
BB14378	704328	WMWGORAP_1333
BB14379	704328	WMWGORAP_1333
BB14380	704328	WMWGORAP_1333
BB14381	704328	WMWGORAP_1333
BB14382	704328	WMWGORAP_1333
BB14383	704329	WMWGORAP_1333
BB14384	704329	WMWGORAP_1333
BB14385	704329	WMWGORAP_1333
BB14387	704329	WMWGORAP_1333
BB14388	704329	WMWGORAP_1333
BB14389	704329	WMWGORAP_1333
BB14812	706180	WMWGORAP_1333
BB14814	706180	WMWGORAP_1333
BB14815	706182	WMWGORAP_1333
BB14816	706180	WMWGORAP_1333
BB14817	706180	WMWGORAP_1333

BB14818	706180	WMWGORAP_1333
BB14819	706180	WMWGORAP_1333
BB14820	706180	WMWGORAP_1333
BB14821	706180	WMWGORAP_1333
BB14822	706180	WMWGORAP_1333
BB14823	706180	WMWGORAP_1333
BB14824	706182	WMWGORAP_1333
BB14825	706182	WMWGORAP_1333
BB14826	706182	WMWGORAP_1333
BB14828	706182	WMWGORAP_1333
BB14946	706182	WMWGORAP_1333
BB14947	706182	WMWGORAP_1333

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- 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:
 - BB14382 Iron MS/MSD spike level was less than 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>
BB13752	Iron	10.15
BB13754	Iron	101.5
BB13755	Iron	101.5
BB14376	Iron	10.15
BB14824	Sodium	10.15

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

Total Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1333

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>
BB13752	704838	WMWGORAP_1333
BB13753	704838	WMWGORAP_1333
BB13754	704838	WMWGORAP_1333
BB13755	704838	WMWGORAP_1333
BB13756	704838	WMWGORAP_1333
BB13757	704838	WMWGORAP_1333
BB14108	704838	WMWGORAP_1333
BB14109	704838	WMWGORAP_1333
BB14369	704838	WMWGORAP_1333
BB14370	704838	WMWGORAP_1333
BB14371	704839	WMWGORAP_1333
BB14372	704839	WMWGORAP_1333
BB14373	704839	WMWGORAP_1333
BB14374	704839	WMWGORAP_1333
BB14375	704839	WMWGORAP_1333
BB14376	704839	WMWGORAP_1333
BB14377	704839	WMWGORAP_1333
BB14378	704839	WMWGORAP_1333
BB14379	704839	WMWGORAP_1333
BB14380	704839	WMWGORAP_1333
BB14381	704840	WMWGORAP_1333
BB14382	704840	WMWGORAP_1333
BB14383	704840	WMWGORAP_1333
BB14384	704840	WMWGORAP_1333
BB14385	704840	WMWGORAP_1333
BB14386	704840	WMWGORAP_1333
BB14387	704840	WMWGORAP_1333
BB14388	704840	WMWGORAP_1333
BB14389	704840	WMWGORAP_1333
BB14812	705488	WMWGORAP_1333
BB14813	705488	WMWGORAP_1333

BB14814	705488	WMWGORAP_1333
BB14816	705488	WMWGORAP_1333
BB14817	705488	WMWGORAP_1333
BB14818	705488	WMWGORAP_1333
BB14819	705488	WMWGORAP_1333
BB14820	705488	WMWGORAP_1333
BB14821	705488	WMWGORAP_1333
BB14822	705488	WMWGORAP_1333
BB14823	705489	WMWGORAP_1333
BB14825	705489	WMWGORAP_1333
BB14826	705489	WMWGORAP_1333
BB14827	705489	WMWGORAP_1333
BB14828	705489	WMWGORAP_1333
BB14946	705489	WMWGORAP_1333
BB14947	705489	WMWGORAP_1333

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. 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>
BB13752	Mn	10.15
BB13754	Mn	10.15
BB13755	Mn	10.15

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

Dissolved Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1333

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>
BB13752	704550	WMWGORAP_1333
BB13753	704550	WMWGORAP_1333
BB13754	704550	WMWGORAP_1333
BB13755	704550	WMWGORAP_1333
BB13756	704550	WMWGORAP_1333
BB14108	704550	WMWGORAP_1333
BB14109	704550	WMWGORAP_1333
BB14369	704550	WMWGORAP_1333
BB14370	704550	WMWGORAP_1333
BB14371	704550	WMWGORAP_1333
BB14372	704551	WMWGORAP_1333
BB14373	704551	WMWGORAP_1333
BB14374	704551	WMWGORAP_1333
BB14375	704551	WMWGORAP_1333
BB14376	704551	WMWGORAP_1333
BB14378	704551	WMWGORAP_1333
BB14379	704551	WMWGORAP_1333
BB14380	704551	WMWGORAP_1333
BB14381	704551	WMWGORAP_1333
BB14382	704551	WMWGORAP_1333
BB14383	704552	WMWGORAP_1333
BB14384	704552	WMWGORAP_1333
BB14385	704552	WMWGORAP_1333
BB14387	704552	WMWGORAP_1333
BB14388	704552	WMWGORAP_1333
BB14389	704552	WMWGORAP_1333
BB14812	705444	WMWGORAP_1333
BB14814	705444	WMWGORAP_1333
BB14815	705444	WMWGORAP_1333
BB14816	705444	WMWGORAP_1333
BB14817	705444	WMWGORAP_1333

BB14818	705444	WMWGORAP_1333
BB14819	705444	WMWGORAP_1333
BB14820	705444	WMWGORAP_1333
BB14821	705444	WMWGORAP_1333
BB14822	705458	WMWGORAP_1333
BB14823	705458	WMWGORAP_1333
BB14824	705444	WMWGORAP_1333
BB14825	705458	WMWGORAP_1333
BB14826	705458	WMWGORAP_1333
BB14828	705458	WMWGORAP_1333
BB14946	705458	WMWGORAP_1333
BB14947	705458	WMWGORAP_1333

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. 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>
BB13752	Manganese	5.075
BB13754	Manganese	5.075
BB13755	Manganese	5.075

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

Total Mercury

Gorgas Ash Pond

WMWGORAP_1333

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>
BB13752	704009	WMWGORAP_1333
BB13753	704009	WMWGORAP_1333
BB13754	704009	WMWGORAP_1333
BB13755	704009	WMWGORAP_1333
BB13756	704009	WMWGORAP_1333
BB13757	704009	WMWGORAP_1333
BB14108	704260	WMWGORAP_1333
BB14109	704260	WMWGORAP_1333
BB14369	704260	WMWGORAP_1333
BB14370	704260	WMWGORAP_1333
BB14371	704260	WMWGORAP_1333
BB14372	704260	WMWGORAP_1333
BB14373	704260	WMWGORAP_1333
BB14374	704260	WMWGORAP_1333
BB14375	704260	WMWGORAP_1333
BB14376	704260	WMWGORAP_1333
BB14377	704261	WMWGORAP_1333
BB14378	704261	WMWGORAP_1333
BB14379	704261	WMWGORAP_1333
BB14380	704261	WMWGORAP_1333
BB14381	704261	WMWGORAP_1333
BB14382	704261	WMWGORAP_1333
BB14383	704261	WMWGORAP_1333
BB14384	704261	WMWGORAP_1333
BB14385	704261	WMWGORAP_1333
BB14386	704261	WMWGORAP_1333
BB14387	704262	WMWGORAP_1333
BB14388	704262	WMWGORAP_1333
BB14389	704262	WMWGORAP_1333
BB14812	705028	WMWGORAP_1333
BB14813	705028	WMWGORAP_1333

BB14814	705028	WMWGORAP_1333
BB14816	705028	WMWGORAP_1333
BB14817	705028	WMWGORAP_1333
BB14818	705028	WMWGORAP_1333
BB14819	705028	WMWGORAP_1333
BB14820	705028	WMWGORAP_1333
BB14821	705028	WMWGORAP_1333
BB14822	705028	WMWGORAP_1333
BB14823	705029	WMWGORAP_1333
BB14825	705029	WMWGORAP_1333
BB14826	705029	WMWGORAP_1333
BB14827	705029	WMWGORAP_1333
BB14828	705029	WMWGORAP_1333
BB14946	705029	WMWGORAP_1333
BB14947	705029	WMWGORAP_1333

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Case Narrative

Dissolved Mercury

Gorgas Ash Pond

WMWGORAP_1333

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>
BB14815	705030	WMWGORAP_1333
BB14824	705030	WMWGORAP_1333

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

TDS

Gorgas Ash Pond

WMWGORAP_1333

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>
BB13752	704094	WMWGORAP_1333
BB13753	704094	WMWGORAP_1333
BB13754	704094	WMWGORAP_1333
BB13755	704094	WMWGORAP_1333
BB13756	704094	WMWGORAP_1333
BB13757	704094	WMWGORAP_1333
BB14108	704094	WMWGORAP_1333
BB14109	704094	WMWGORAP_1333
BB14369	704263	WMWGORAP_1333
BB14370	704264	WMWGORAP_1333
BB14371	704264	WMWGORAP_1333
BB14372	704264	WMWGORAP_1333
BB14373	704264	WMWGORAP_1333
BB14374	704264	WMWGORAP_1333
BB14375	704264	WMWGORAP_1333
BB14376	704264	WMWGORAP_1333
BB14377	704264	WMWGORAP_1333
BB14378	704264	WMWGORAP_1333
BB14379	704264	WMWGORAP_1333
BB14380	704310	WMWGORAP_1333
BB14381	704310	WMWGORAP_1333
BB14382	704310	WMWGORAP_1333
BB14383	704310	WMWGORAP_1333
BB14384	704310	WMWGORAP_1333
BB14385	704310	WMWGORAP_1333
BB14386	704310	WMWGORAP_1333
BB14387	704310	WMWGORAP_1333
BB14388	704310	WMWGORAP_1333
BB14389	704310	WMWGORAP_1333
BB14812	704870	WMWGORAP_1333
BB14813	704871	WMWGORAP_1333

BB14814	704871	WMWGORAP_1333
BB14815	704871	WMWGORAP_1333
BB14816	704871	WMWGORAP_1333
BB14817	704871	WMWGORAP_1333
BB14818	704871	WMWGORAP_1333
BB14819	704871	WMWGORAP_1333
BB14820	704871	WMWGORAP_1333
BB14821	704871	WMWGORAP_1333
BB14822	704871	WMWGORAP_1333
BB14823	705024	WMWGORAP_1333
BB14824	705024	WMWGORAP_1333
BB14825	705024	WMWGORAP_1333
BB14826	705024	WMWGORAP_1333
BB14827	705024	WMWGORAP_1333
BB14828	705024	WMWGORAP_1333
BB14946	705024	WMWGORAP_1333
BB14947	705024	WMWGORAP_1333

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. RPD/2 was less than 5%, except for the following:
 - BB14379 precision was outside of the specification limit. See sample comment for more information.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BB13757
 - BB14377
 - BB14386
 - BB14813
 - BB14827

Anions

Gorgas Ash Pond

WMWGORAP_1333

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>
BB13752	704201, 704680, 705130	WMWGORAP_1333
BB13753	704201, 704680, 705130	WMWGORAP_1333
BB13754	704201, 704680, 705130	WMWGORAP_1333
BB13755	704201, 704680, 705130	WMWGORAP_1333
BB13756	704201, 704680, 705130	WMWGORAP_1333
BB13757	704201, 704680, 705130	WMWGORAP_1333
BB14108	704201, 704680, 705130	WMWGORAP_1333
BB14109	704201, 704680, 705130	WMWGORAP_1333
BB14369	704439, 704680, 705130	WMWGORAP_1333
BB14370	704439, 704680, 705130	WMWGORAP_1333
BB14371	704439, 704678, 705131	WMWGORAP_1333
BB14372	704439, 704678, 705131	WMWGORAP_1333
BB14373	704439, 704678, 705131	WMWGORAP_1333
BB14374	704439, 704678, 705166	WMWGORAP_1333
BB14375	704439, 704678, 705131	WMWGORAP_1333
BB14376	704439, 704678, 705131	WMWGORAP_1333
BB14377	704439, 704678, 705131	WMWGORAP_1333
BB14378	704439, 704678, 705131	WMWGORAP_1333
BB14379	704440, 704678, 705131	WMWGORAP_1333
BB14380	704440, 704678, 705131	WMWGORAP_1333
BB14381	704440, 704681, 705166	WMWGORAP_1333
BB14382	704440, 704681, 705166	WMWGORAP_1333
BB14383	704440, 704681, 705166	WMWGORAP_1333
BB14384	704440, 704681, 705166	WMWGORAP_1333
BB14385	704440, 704681, 705166	WMWGORAP_1333
BB14386	704440, 704681, 705166	WMWGORAP_1333
BB14387	704440, 704681, 705166	WMWGORAP_1333
BB14388	704440, 704681, 705166	WMWGORAP_1333
BB14389	704442, 704681, 705166	WMWGORAP_1333
BB14812	704442, 705033, 705167	WMWGORAP_1333
BB14813	704442, 705033, 705167	WMWGORAP_1333

BB14814	704442, 705033, 705167	WMWGORAP_1333
BB14815	704442, 705033, 705167	WMWGORAP_1333
BB14816	704442, 705033, 705167	WMWGORAP_1333
BB14817	704442, 705033, 705167	WMWGORAP_1333
BB14818	704442, 705033, 705167	WMWGORAP_1333
BB14819	704442, 705033, 705167	WMWGORAP_1333
BB14820	704442, 705033, 705167	WMWGORAP_1333
BB14821	705026, 705033, 705167	WMWGORAP_1333
BB14822	705026, 705034, 705168	WMWGORAP_1333
BB14823	705026, 705034, 705168	WMWGORAP_1333
BB14824	705026, 705034, 705168	WMWGORAP_1333
BB14825	705026, 705034, 705168	WMWGORAP_1333
BB14826	705026, 705034, 705168	WMWGORAP_1333
BB14827	705026, 705034, 705168	WMWGORAP_1333
BB14828	705026, 705034, 705168	WMWGORAP_1333
BB14946	705026, 705034, 705168	WMWGORAP_1333
BB14947	705026, 705034, 705168	WMWGORAP_1333

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, except for the following:
 - BB14388 Chloride MS recovery was outside of the specification limit.
 - A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BB13752	Sulfate	8
BB13753	Sulfate	4
BB13754	Sulfate	20
BB13755	Sulfate	20
BB13756	Sulfate	5
BB14108	Sulfate	16
BB14109	Chloride	4
BB14369	Chloride & Sulfate	50 & 16
BB14372	Chloride & Sulfate	8 & 16
BB14374	Sulfate	5
BB14375	Chloride	8
BB14376	Sulfate	8
BB14378	Sulfate	8
BB14381	Chloride	4
BB14382	Sulfate	16
BB14387	Sulfate	4
BB14388	Chloride & Sulfate	10 & 16
BB14389	Chloride & Sulfate	8 & 8
BB14822	Chloride & Sulfate	4 & 2
BB14823	Sulfate	8
BB14824	Sulfate	8
BB14825	Chloride & Sulfate	2 & 40
BB14946	Chloride & Sulfate	40 & 8
BB14947	Chloride & Sulfate	5 & 8

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

Alkalinity

Gorgas Ash Pond

WMWGORAP_1333

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>
BB13752	704396 & 704397	WMWGORAP_1333
BB13753	704396 & 704397	WMWGORAP_1333
BB13754	704396 & 704397	WMWGORAP_1333
BB13755	704396 & 704397	WMWGORAP_1333
BB13756	704396 & 704397	WMWGORAP_1333
BB14108	704396 & 704397	WMWGORAP_1333
BB14109	704396 & 704397	WMWGORAP_1333
BB14369	704396 & 704397	WMWGORAP_1333
BB14370	704396 & 704397	WMWGORAP_1333
BB14371	704396 & 704397	WMWGORAP_1333
BB14372	704396 & 704397	WMWGORAP_1333
BB14373	704396 & 704397	WMWGORAP_1333
BB14374	704396 & 704397	WMWGORAP_1333
BB14375	704396 & 704397	WMWGORAP_1333
BB14376	704396 & 704397	WMWGORAP_1333
BB14378	704396 & 704397	WMWGORAP_1333
BB14379	704396 & 704397	WMWGORAP_1333
BB14380	704396 & 704397	WMWGORAP_1333
BB14381	704396 & 704397	WMWGORAP_1333
BB14382	704396 & 704397	WMWGORAP_1333
BB14383	705077 & 705078	WMWGORAP_1333
BB14384	705077 & 705078	WMWGORAP_1333
BB14385	705077 & 705078	WMWGORAP_1333
BB14387	705077 & 705078	WMWGORAP_1333
BB14388	705077 & 705078	WMWGORAP_1333
BB14389	705077 & 705078	WMWGORAP_1333
BB14812	705077 & 705078	WMWGORAP_1333
BB14814	705077 & 705078	WMWGORAP_1333
BB14815	705077 & 705078	WMWGORAP_1333
BB14816	705077 & 705078	WMWGORAP_1333
BB14817	705077 & 705078	WMWGORAP_1333

BB14818	705077 & 705078	WMWGORAP_1333
BB14819	705077 & 705078	WMWGORAP_1333
BB14820	705077 & 705078	WMWGORAP_1333
BB14821	705077 & 705078	WMWGORAP_1333
BB14822	705077 & 705078	WMWGORAP_1333
BB14823	705077 & 705078	WMWGORAP_1333
BB14824	705077 & 705078	WMWGORAP_1333
BB14825	705077 & 705078	WMWGORAP_1333
BB14826	705077 & 705078	WMWGORAP_1333
BB14828	705406 & 705407	WMWGORAP_1333
BB14946	705406 & 705407	WMWGORAP_1333
BB14947	705406 & 705407	WMWGORAP_1333

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.

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6S

Location Code: WMWGORAP
Collected: 7/27/21 10:55
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13752

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:10		1.015	0.873	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 12:43		10.15	52.6	mg/L	0.70035	4.06	
* Iron, Total	8/6/21 15:00	8/10/21 12:43		10.15	5.54	mg/L	0.08120	0.406	
* Lithium, Total	8/6/21 15:00	8/10/21 10:10		1.015	0.0576	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:10		1.015	18.4	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 10:10		1.015	9.25	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA						
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:35		10.15	5.12	mg/L	0.08120	0.406	
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.00123	mg/L	0.000508	0.001015	
* Arsenic, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.00634	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.0876	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 16:56		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 16:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.000239	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.000643	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.0000775	mg/L	0.000068	0.000203	J
* Molybdenum, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.0452	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 16:56		1.015	3.96	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/10/21 16:46		10.15	2.49	mg/L	0.000680	0.00203	
* Selenium, Total	8/9/21 10:19	8/9/21 16:56		1.015	0.00124	mg/L	0.000508	0.001015	
* Thallium, Total	8/9/21 10:19	8/9/21 16:56		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: ABB						
* Manganese, Dissolved	8/9/21 13:08	8/10/21 14:37		5.075	2.43	mg/L	0.000340	0.001015	
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	8/2/21 11:34	8/3/21 13:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	94.3	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	273	mg/L		25	

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: 7/27/21 10:55
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13752

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	94.2	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.08	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/4/21 12:59	8/4/21 12:59		1	17.0	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:45	8/12/21 13:45		1	0.200	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:35	8/13/21 15:35		8	114	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	7/27/21 10:52	7/27/21 10:52			491.69	uS/cm			FA
pH	7/27/21 10:52	7/27/21 10:52			6.67	SU			FA
Temperature	7/27/21 10:52	7/27/21 10:52			21.11	C			FA
Turbidity	7/27/21 10:52	7/27/21 10:52			7.43	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: 7/27/21 10:55

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: BB13752

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB13757	Mercury, Total by CVAA	mg/L	2.610E-05	0.000500	0.004	0.00408	0.00421	0.00410	0.00340 to 0.00460	102	70.0 to 130	3.14	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	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: 7/27/21 10:55

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: BB13752

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	20.0
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	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: 7/27/21 12:08
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13753

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:13		1.015	1.29	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 12:46		10.15	55.5	mg/L	0.70035	4.06	
* Iron, Total	8/6/21 15:00	8/10/21 10:13		1.015	0.0213	mg/L	0.008120	0.0406	J
* Lithium, Total	8/6/21 15:00	8/10/21 10:13		1.015	0.326	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:13		1.015	15.4	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 10:13		1.015	27.5	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Iron, Dissolved	8/6/21 12:30	8/9/21 11:22		1.015	0.0160	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:00		1.015	0.107	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:00		1.015	0.488	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:00		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:00		1.015	0.000241	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 17:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:00		1.015	0.0101	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:00		1.015	2.41	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 17:00		1.015	0.178	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Manganese, Dissolved	8/9/21 13:08	8/9/21 17:55		1.015	0.177	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: CRB		Preparation Method: EPA 1638				
* Mercury, Total by CVAA	8/2/21 11:34	8/3/21 13:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG		Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	177	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ		Preparation Method: EPA 1638				
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	262	mg/L		25	

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: 7/27/21 12:08
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13753

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	176	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.64	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/4/21 13:01	8/4/21 13:01		1	11.1	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:46	8/12/21 13:46		1	0.127	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:37	8/13/21 15:37		4	64.4	mg/L	2.00	4	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	7/27/21 12:05	7/27/21 12:05			482.69	uS/cm			FA
pH	7/27/21 12:05	7/27/21 12:05			6.79	SU			FA
Temperature	7/27/21 12:05	7/27/21 12:05			20.02	C			FA
Turbidity	7/27/21 12:05	7/27/21 12:05			0.03	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: 7/27/21 12:08

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: BB13753

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB13757	Mercury, Total by CVAA	mg/L	2.610E-05	0.000500	0.004	0.00408	0.00421	0.00410	0.00340 to 0.00460	102	70.0 to 130	3.14	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	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: 7/27/21 12:08

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: BB13753

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	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: 7/27/21 13:35
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13754

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:17		1.015	0.0474	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 12:50		20.3	75.5	mg/L	1.4007	8.12	
* Iron, Total	8/6/21 15:00	8/10/21 12:50		20.3	46.1	mg/L	0.1624	0.812	
* Lithium, Total	8/6/21 15:00	8/10/21 10:17		1.015	0.0309	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:17		1.015	34.4	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 10:17		1.015	17.8	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:38		101.5	45.3	mg/L	0.8120	4.06	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:03		1.015	0.0474	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:03		1.015	0.0133	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:03		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:03		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/9/21 10:19	8/9/21 17:03		1.015	0.000487	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:03		1.015	0.000904	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:03		1.015	1.47	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/10/21 16:49		10.15	1.56	mg/L	0.000680	0.00203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:03		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:03		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	8/9/21 13:08	8/10/21 14:41		5.075	1.46	mg/L	0.000340	0.001015	
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	8/2/21 11:34	8/3/21 13:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	79.7	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	580	mg/L		25	

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: 7/27/21 13:35
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13754

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	79.7	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.01	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/4/21 13:02	8/4/21 13:02		1	2.48	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:47	8/12/21 13:47		1	0.130	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:38	8/13/21 15:38		20	339	mg/L	10.00	20	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	7/27/21 13:33	7/27/21 13:33			761.00	uS/cm			FA
pH	7/27/21 13:33	7/27/21 13:33			5.65	SU			FA
Temperature	7/27/21 13:33	7/27/21 13:33			19.33	C			FA
Turbidity	7/27/21 13:33	7/27/21 13:33			1.36	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: 7/27/21 13:35

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-23H

Laboratory ID Number: BB13754

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.0000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	20.0
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB13757	Mercury, Total by CVAA	mg/L	2.610E-05	0.000500	0.004	0.00408	0.00421	0.00410	0.00340 to 0.00460	102	70.0 to 130	3.14	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	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: 7/27/21 13:35

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-23H

Laboratory ID Number: BB13754

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	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: 7/27/21 13:35
Customer ID:
Submission Date: 7/28/21 14:37

Laboratory ID Number: BB13755

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:20		1.015	0.0461	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 12:53		20.3	76.8	mg/L	1.4007	8.12	
* Iron, Total	8/6/21 15:00	8/10/21 12:53		20.3	48.3	mg/L	0.1624	0.812	
* Lithium, Total	8/6/21 15:00	8/10/21 10:20		1.015	0.0308	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:20		1.015	34.2	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 10:20		1.015	17.8	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:42		101.5	45.0	mg/L	0.8120	4.06	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:07		1.015	0.0494	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:07		1.015	0.0148	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:07		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:07		1.015	0.000246	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:07		1.015	0.000504	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 17:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:07		1.015	0.000813	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:07		1.015	1.46	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/10/21 16:53		10.15	1.59	mg/L	0.000680	0.00203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:07		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:07		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: ABB							
* Manganese, Dissolved	8/9/21 13:08	8/10/21 14:44		5.075	1.48	mg/L	0.000340	0.001015	
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	8/2/21 11:34	8/3/21 13:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	89.6	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	581	mg/L		25	

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: 7/27/21 13:35
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13755

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	89.6	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.02	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/4/21 13:03	8/4/21 13:03		1	2.25	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:48	8/12/21 13:48		1	0.118	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:39	8/13/21 15:39		20	336	mg/L	10.00	20	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	7/27/21 13:33	7/27/21 13:33			761.00	uS/cm			FA
pH	7/27/21 13:33	7/27/21 13:33			5.65	SU			FA
Temperature	7/27/21 13:33	7/27/21 13:33			19.33	C			FA
Turbidity	7/27/21 13:33	7/27/21 13:33			1.36	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: 7/27/21 13:35

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-23H DUP

Laboratory ID Number: BB13755

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB13757	Mercury, Total by CVAA	mg/L	2.610E-05	0.000500	0.004	0.00408	0.00421	0.00410	0.00340 to 0.00460	102	70.0 to 130	3.14	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	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: 7/27/21 13:35

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-23H DUP

Laboratory ID Number: BB13755

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	20.0
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	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: 7/28/21 10:30
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13756

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:24		1.015	1.09	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 12:57		10.15	45.1	mg/L	0.70035	4.06	
* Iron, Total	8/6/21 15:00	8/10/21 10:24		1.015	0.204	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 10:24		1.015	0.178	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:24		1.015	22.6	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 10:24		1.015	19.3	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA						
* Iron, Dissolved	8/6/21 12:30	8/9/21 11:32		1.015	0.110	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:11		1.015	0.000383	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:11		1.015	0.0445	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:11		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:11		1.015	0.000311	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:11		1.015	0.000294	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 17:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:11		1.015	0.00440	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:11		1.015	1.78	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 17:11		1.015	0.116	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:11		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ						
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:05		1.015	0.110	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	8/2/21 11:34	8/3/21 13:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	115	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	283	mg/L		25	

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: 7/28/21 10:30
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13756

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	115	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.10	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/4/21 13:04	8/4/21 13:04		1	8.34	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:50	8/12/21 13:50		1	0.172	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:40	8/13/21 15:40		5	103	mg/L	2.50	5	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	7/28/21 10:26	7/28/21 10:26			457.00	uS/cm			FA
pH	7/28/21 10:26	7/28/21 10:26			6.86	SU			FA
Temperature	7/28/21 10:26	7/28/21 10:26			18.38	C			FA
Turbidity	7/28/21 10:26	7/28/21 10:26			2.03	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: 7/28/21 10:30

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-41HS

Laboratory ID Number: BB13756

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB13757	Mercury, Total by CVAA	mg/L	2.610E-05	0.000500	0.004	0.00408	0.00421	0.00410	0.00340 to 0.00460	102	70.0 to 130	3.14	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	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: 7/28/21 10:30

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond - MW-41HS

Laboratory ID Number: BB13756

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	20.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	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: 7/28/21 11:30
Customer ID:
Submittal Date: 7/28/21 14:37

Laboratory ID Number: BB13757

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:27		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/6/21 15:00	8/10/21 10:27		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/6/21 15:00	8/10/21 10:27		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/6/21 15:00	8/10/21 10:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/6/21 15:00	8/10/21 10:27		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	8/6/21 15:00	8/10/21 10:27		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:14		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: CRB						
* Mercury, Total by CVAA	8/2/21 11:34	8/3/21 13:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: CES						
* Chloride	8/4/21 13:05	8/4/21 13:05		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/12/21 13:51	8/12/21 13:51		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	8/13/21 15:41	8/13/21 15:41		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 7/28/21 11:30

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB13757

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB13757	Mercury, Total by CVAA	mg/L	2.610E-05	0.000500	0.004	0.00408	0.00421	0.00410	0.00340 to 0.00460	102	70.0 to 130	3.14	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.0000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 7/28/21 11:30

Customer ID:

Delivery Date: 7/28/21 14:37

Description: Gorgas Ash Pond Field Blank-1

Laboratory ID Number: BB13757

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	20.0
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-30HA

Location Code: WMWGORAP
Collected: 8/2/21 12:03
Customer ID:
Submittal Date: 8/3/21 09:12

Laboratory ID Number: BB14108

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:30		1.015	0.0600	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 13:00		20.3	43.8	mg/L	1.4007	8.12	
* Iron, Total	8/6/21 15:00	8/10/21 10:30		1.015	2.55	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 10:30		1.015	0.0582	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:30		1.015	7.66	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 13:00		20.3	158	mg/L	0.609	8.12	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 11:36		1.015	2.40	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:18		1.015	0.00300	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:18		1.015	0.0965	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:18		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:18		1.015	0.000354	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:18		1.015	0.000217	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 17:18		1.015	0.000166	mg/L	0.000068	0.000203	J
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:18		1.015	0.00394	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:18		1.015	4.20	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 17:18		1.015	0.166	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:18		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:18		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:09		1.015	0.161	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	299	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	602	mg/L		50	

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: 8/2/21 12:03
Customer ID:
Submittal Date: 8/3/21 09:12

Laboratory ID Number: BB14108

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	298	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.61	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/4/21 13:07	8/4/21 13:07		1	4.28	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:42	8/12/21 13:42		1	1.49	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:43	8/13/21 15:43		16	201	mg/L	8.00	16	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/2/21 12:00	8/2/21 12:00			888.47	uS/cm			FA
pH	8/2/21 12:00	8/2/21 12:00			7.27	SU			FA
Temperature	8/2/21 12:00	8/2/21 12:00			19.27	C			FA
Turbidity	8/2/21 12:00	8/2/21 12:00			7.97	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: 8/2/21 12:03

Customer ID:

Delivery Date: 8/3/21 09:12

Description: Gorgas Ash Pond - MW-30HA

Laboratory ID Number: BB14108

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	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: 8/2/21 12:03

Customer ID:

Delivery Date: 8/3/21 09:12

Description: Gorgas Ash Pond - MW-30HA

Laboratory ID Number: BB14108

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	20.0
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	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: 8/2/21 14:02
Customer ID:
Submittal Date: 8/3/21 09:12

Laboratory ID Number: BB14109

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:34		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/6/21 15:00	8/10/21 10:34		1.015	4.60	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 10:34		1.015	0.0385	mg/L	0.008120	0.0406	J
* Lithium, Total	8/6/21 15:00	8/10/21 10:34		1.015	0.0411	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:34		1.015	1.38	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 13:03		101.5	121	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Iron, Dissolved	8/6/21 12:30	8/9/21 11:39		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:21		1.015	0.000293	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:21		1.015	0.102	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:21		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:21		1.015	0.000287	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:21		1.015	0.00486	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:21		1.015	1.30	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 17:21		1.015	0.00856	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:21		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:13		1.015	0.00855	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB			Preparation Method: EPA 1638				
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG			Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	205	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ			Preparation Method: EPA 1638				
* Solids, Dissolved	8/3/21 10:08	8/4/21 12:35		1	332	mg/L		25	

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: 8/2/21 14:02
Customer ID:
Submittal Date: 8/3/21 09:12

Laboratory ID Number: BB14109

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	196	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	9.01	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/4/21 13:20	8/4/21 13:20		4	38.5	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:43	8/12/21 13:43		1	0.191	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:44	8/13/21 15:44		1	35.1	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/2/21 13:58	8/2/21 13:58			610.48	uS/cm			FA
pH	8/2/21 13:58	8/2/21 13:58			8.69	SU			FA
Temperature	8/2/21 13:58	8/2/21 13:58			22.51	C			FA
Turbidity	8/2/21 13:58	8/2/21 13:58			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: 8/2/21 14:02

Customer ID:

Delivery Date: 8/3/21 09:12

Description: Gorgas Ash Pond - MW-31H

Laboratory ID Number: BB14109

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Lead, Total	mg/L	0.000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	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: 8/2/21 14:02

Customer ID:

Delivery Date: 8/3/21 09:12

Description: Gorgas Ash Pond - MW-31H

Laboratory ID Number: BB14109

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14109	Chloride	mg/L	0.118	1.00	40.0	82.1	40.0	9.83	9.00 to 11.0	109	80.0 to 120	3.82	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB13756	Solids, Dissolved	mg/L	-1.00	25.0			271	52.0	40.0 to 60.0			2.17	5.00
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	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: 8/3/21 11:41
Customer ID:
Submittal Date: 8/5/21 10:42

Laboratory ID Number: BB14369

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:37		1.015	0.0601	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 10:37		1.015	10.6	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 10:37		1.015	0.0138	mg/L	0.008120	0.0406	J
* Lithium, Total	8/6/21 15:00	8/10/21 10:37		1.015	0.0986	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:37		1.015	4.17	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 13:07		101.5	231	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 11:42		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:25		1.015	0.000972	mg/L	0.000508	0.001015	J
* Arsenic, Total	8/9/21 10:19	8/9/21 17:25		1.015	0.0105	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:25		1.015	0.164	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:25		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:25		1.015	0.000507	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:25		1.015	0.0311	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:25		1.015	13.7	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 17:25		1.015	0.00106	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:25		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:25		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:16		1.015	0.00111	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	211	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	782	mg/L		75.8	

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.

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-15V

Location Code: WMWGORAP

Collected: 8/3/21 11:41

Customer ID:

Submittal Date: 8/5/21 10:42

Laboratory ID Number: BB14369

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	192	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	18.5	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:27	8/9/21 14:27		50	176	mg/L	25.00	50	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:52	8/12/21 13:52		1	0.278	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:45	8/13/21 15:45		16	241	mg/L	8.00	16	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/3/21 11:38	8/3/21 11:38			1532.78	uS/cm			FA
pH	8/3/21 11:38	8/3/21 11:38			8.97	SU			FA
Temperature	8/3/21 11:38	8/3/21 11:38			24.31	C			FA
Turbidity	8/3/21 11:38	8/3/21 11:38			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: 8/3/21 11:41

Customer ID:

Delivery Date: 8/5/21 10:42

Description: Gorgas Ash Pond - MW-15V

Laboratory ID Number: BB14369

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	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: 8/3/21 11:41

Customer ID:

Delivery Date: 8/5/21 10:42

Description: Gorgas Ash Pond - MW-15V

Laboratory ID Number: BB14369

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	20.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14369	Solids, Dissolved	mg/L	-2.00	25.0			803	43.0	40.0 to 60.0			1.32	5.00
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0

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-15

Location Code: WMWGORAP
Collected: 8/3/21 13:29
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14370

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:40		1.015	0.0491	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 10:40		1.015	3.55	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 10:40		1.015	0.0283	mg/L	0.008120	0.0406	J
* Lithium, Total	8/6/21 15:00	8/10/21 10:40		1.015	0.536	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:40		1.015	0.239	mg/L	0.021315	0.406	J
* Sodium, Total	8/6/21 15:00	8/10/21 13:10		101.5	238	mg/L	3.045	40.6	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Iron, Dissolved	8/6/21 12:30	8/9/21 11:46		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.000652	mg/L	0.000508	0.001015	J
* Arsenic, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.0139	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.129	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:28		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.000802	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.0000879	mg/L	0.000068	0.000203	J
* Lead, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.0000798	mg/L	0.000068	0.000203	J
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.0663	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:28		1.015	9.76	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 17:28		1.015	0.000484	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:28		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:20		1.015	0.000486	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB		Preparation Method: EPA 1638				
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG		Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	727	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ		Preparation Method: EPA 1638				
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	632	mg/L		100	

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: 8/3/21 13:29

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14370

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	3.52	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	288	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:12	8/9/21 14:12		1	6.22	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 13:53	8/12/21 13:53		1	0.615	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:46	8/13/21 15:46		1	9.77	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/3/21 13:26	8/3/21 13:26			1944.05	uS/cm			FA
pH	8/3/21 13:26	8/3/21 13:26			11.56	SU			FA
Temperature	8/3/21 13:26	8/3/21 13:26			24.22	C			FA
Turbidity	8/3/21 13:26	8/3/21 13:26			1.24	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: 8/3/21 13:29

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: BB14370

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14370	Calcium, Total	mg/L	0.00206	0.152	5.00	8.68	8.71	5.06	4.25 to 5.75	103	70.0 to 130	0.345	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14370	Boron, Total	mg/L	0.000608	0.0650	1.00	1.08	1.08	0.983	0.850 to 1.15	103	70.0 to 130	0.00	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	20.0
BB14370	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0962	0.0998	0.0981	0.0850 to 0.115	95.5	70.0 to 130	3.67	20.0
BB14370	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.110	0.108	0.111	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14370	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	5.24	5.27	4.97	4.25 to 5.75	100	70.0 to 130	0.571	20.0
BB14370	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.107	0.108	0.109	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BB14370	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.121	0.117	0.107	0.0850 to 0.115	107	70.0 to 130	3.36	20.0
BB14370	Barium, Total	mg/L	-0.0000008	0.000200	0.100	0.222	0.237	0.106	0.0850 to 0.115	93.0	70.0 to 130	6.54	20.0
BB14370	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.0936	0.0951	0.107	0.0850 to 0.115	93.6	70.0 to 130	1.59	20.0
BB14370	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.100	0.107	0.104	0.0850 to 0.115	99.2	70.0 to 130	6.76	20.0
BB14370	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0994	0.102	0.0989	0.0850 to 0.115	99.4	70.0 to 130	2.58	20.0
BB14370	Potassium, Total	mg/L	0.00962	0.367	10.0	20.1	20.5	10.4	8.50 to 11.5	103	70.0 to 130	1.97	20.0
BB14370	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.782	0.783	0.198	0.170 to 0.230	123	70.0 to 130	0.128	20.0
BB14370	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.101	0.105	0.105	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14370	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.0993	0.102	0.102	0.0850 to 0.115	98.8	70.0 to 130	2.68	20.0
BB14370	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.116	0.113	0.103	0.0850 to 0.115	116	70.0 to 130	2.62	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14370	Iron, Total	mg/L	0.000797	0.0176	0.2	0.230	0.229	0.202	0.170 to 0.230	101	70.0 to 130	0.436	20.0
BB14370	Sodium, Total	mg/L	0.000156	0.0660	5.00	244	242	4.80	4.25 to 5.75	120	70.0 to 130	0.823	20.0
BB14370	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.155	0.165	0.0993	0.0850 to 0.115	88.7	70.0 to 130	6.25	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: 8/3/21 13:29

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: BB14370

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14370	Fluoride	mg/L	0.0485	0.100	2.50	3.25	0.615	2.70	2.25 to 2.75	105	80.0 to 120	0.00	20.0
BB14370	Sulfate	mg/L	-0.00615	1.00	20.0	29.9	9.76	18.5	18.0 to 22.0	101	80.0 to 120	0.102	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00

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: 8/3/21 16:04
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14371

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 10:57		1.015	0.0639	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 10:57		1.015	23.9	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 10:57		1.015	0.158	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 10:57		1.015	0.0707	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 10:57		1.015	0.0315	mg/L	0.021315	0.406	J
* Sodium, Total	8/6/21 15:00	8/10/21 13:27		101.5	124	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 11:49		1.015	0.0120	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:50		1.015	0.00323	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 17:50		1.015	0.0565	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:50		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:50		1.015	0.000844	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:50		1.015	0.000192	mg/L	0.000068	0.000203	J
* Lead, Total	8/9/21 10:19	8/9/21 17:50		1.015	0.000389	mg/L	0.000068	0.000203	
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:50		1.015	0.0254	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:50		1.015	3.00	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 17:50		1.015	0.00191	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:23		1.015	0.00168	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	351	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	343	mg/L		25	

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-16S

Location Code: WMWGORAP
Collected: 8/3/21 16:04
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14371

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	50.3	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	272	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:13	8/9/21 14:13		1	3.29	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:05	8/12/21 14:05		1	0.481	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 15:59	8/13/21 15:59		1	9.32	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/3/21 16:00	8/3/21 16:00			647.10	uS/cm			FA
pH	8/3/21 16:00	8/3/21 16:00			10.68	SU			FA
Temperature	8/3/21 16:00	8/3/21 16:00			20.90	C			FA
Turbidity	8/3/21 16:00	8/3/21 16:00			9.42	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: 8/3/21 16:04

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-16S

Laboratory ID Number: BB14371

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14371	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	0.215	0.214	0.204	0.170 to 0.230	102	70.0 to 130	0.466	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14371	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	0.0942	0.0955	0.0985	0.0850 to 0.115	92.5	70.0 to 130	1.37	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: 8/3/21 16:04

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-16S

Laboratory ID Number: BB14371

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14382	Alkalinity, Total as CaCO ₃	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00

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: 8/4/21 09:47
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14372

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638					
* Boron, Total	8/6/21 15:00	8/10/21 11:01		1.015	0.0993	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/6/21 15:00	8/10/21 11:01		1.015	1.76	mg/L	0.070035	0.406		
* Iron, Total	8/6/21 15:00	8/10/21 11:01		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/6/21 15:00	8/10/21 11:01		1.015	0.213	mg/L	0.007105	0.01999956		
* Magnesium, Total	8/6/21 15:00	8/10/21 11:01		1.015	0.340	mg/L	0.021315	0.406	J	
* Sodium, Total	8/6/21 15:00	8/10/21 13:30		101.5	227	mg/L	3.045	40.6		
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638					
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:06		1.015	Not Detected	mg/L	0.008120	0.0406	U	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638					
* Antimony, Total	8/9/21 10:19	8/9/21 17:54		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Arsenic, Total	8/9/21 10:19	8/9/21 17:54		1.015	0.000537	mg/L	0.000068	0.000203		
* Barium, Total	8/9/21 10:19	8/9/21 17:54		1.015	0.148	mg/L	0.000102	0.000203		
* Beryllium, Total	8/9/21 10:19	8/9/21 17:54		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/9/21 10:19	8/9/21 17:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/9/21 10:19	8/9/21 17:54		1.015	0.000422	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/9/21 10:19	8/9/21 17:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/9/21 10:19	8/9/21 17:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:54		1.015	0.0367	mg/L	0.000068	0.000203		
* Potassium, Total	8/9/21 10:19	8/9/21 17:54		1.015	4.47	mg/L	0.169505	0.5075		
* Manganese, Total	8/9/21 10:19	8/9/21 17:54		1.015	0.000259	mg/L	0.000068	0.000203		
* Selenium, Total	8/9/21 10:19	8/9/21 17:54		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/9/21 10:19	8/9/21 17:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:45		1.015	0.000262	mg/L	0.000068	0.000203		
Analytical Method: EPA 245.1		Analyst: ABB			Preparation Method: EPA 1638					
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:36		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: SM 2320 B		Analyst: JAG			Preparation Method: EPA 1638					
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	225	mg/L		0.1		
Analytical Method: SM 2540C		Analyst: CNJ			Preparation Method: EPA 1638					
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	594	mg/L		50		

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: 8/4/21 09:47
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14372

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	50.7	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	158	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:28	8/9/21 14:28		8	54.8	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:06	8/12/21 14:06		1	0.240	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 16:11	8/13/21 16:11		16	231	mg/L	8.00	16	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/4/21 09:43	8/4/21 09:43			1261.89	uS/cm			FA
pH	8/4/21 09:43	8/4/21 09:43			10.95	SU			FA
Temperature	8/4/21 09:43	8/4/21 09:43			22.72	C			FA
Turbidity	8/4/21 09:43	8/4/21 09:43			1.02	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: 8/4/21 09:47

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: BB14372

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14380	Arsenic, Total	mg/L	-0.000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	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: 8/4/21 09:47

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: BB14372

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	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: 8/4/21 12:05
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14373

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:04		1.015	0.117	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 11:04		1.015	0.564	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 11:04		1.015	0.0538	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:04		1.015	0.0443	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:04		1.015	0.153	mg/L	0.021315	0.406	J
* Sodium, Total	8/6/21 15:00	8/10/21 13:34		101.5	132	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:09		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	8/9/21 10:19	8/9/21 17:57		1.015	0.0702	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 17:57		1.015	0.000849	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 17:57		1.015	0.00168	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 17:57		1.015	0.506	mg/L	0.169505	0.5075	J
* Manganese, Total	8/9/21 10:19	8/9/21 17:57		1.015	0.00121	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 17:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:48		1.015	0.00105	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	271	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	316	mg/L		25	

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: 8/4/21 12:05

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14373

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	215	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	54.4	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:15	8/9/21 14:15		1	7.25	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:08	8/12/21 14:08		1	0.932	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 16:01	8/13/21 16:01		1	16.8	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/4/21 12:01	8/4/21 12:01			541.34	uS/cm			FA
pH	8/4/21 12:01	8/4/21 12:01			9.08	SU			FA
Temperature	8/4/21 12:01	8/4/21 12:01			24.28	C			FA
Turbidity	8/4/21 12:01	8/4/21 12:01			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: 8/4/21 12:05

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: BB14373

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	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: 8/4/21 12:05

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: BB14373

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00

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: 8/4/21 13:57
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14374

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:08		1.015	0.447	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 11:08		1.015	17.7	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 11:08		1.015	0.202	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:08		1.015	0.0809	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:08		1.015	6.01	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 13:37		101.5	125	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:13		1.015	0.187	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:01		1.015	0.00317	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 18:01		1.015	0.264	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:01		1.015	0.000223	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 18:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:01		1.015	0.0377	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:01		1.015	1.61	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:01		1.015	0.0162	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:52		1.015	0.0149	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	270	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	407	mg/L		25	

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: 8/4/21 13:57
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14374

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	268	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	2.19	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:16	8/9/21 14:16		1	13.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:09	8/12/21 14:09		1	0.353	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 08:54	8/17/21 08:54		5	74.0	mg/L	2.50	5	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/4/21 13:53	8/4/21 13:53			659.55	uS/cm			FA
pH	8/4/21 13:53	8/4/21 13:53			7.68	SU			FA
Temperature	8/4/21 13:53	8/4/21 13:53			20.05	C			FA
Turbidity	8/4/21 13:53	8/4/21 13:53			1.15	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: 8/4/21 13:57

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-29H

Laboratory ID Number: BB14374

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	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: 8/4/21 13:57

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-29H

Laboratory ID Number: BB14374

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec			Prec Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit	Prec			
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75		109	80.0 to 120		4.44	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0		98.9	80.0 to 120		0.840	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0					1.85	10.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0		103	80.0 to 120		2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0					14.2	5.00

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: 8/2/21 14:23
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14375

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:11		1.015	0.101	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 11:11		1.015	2.10	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 11:11		1.015	0.135	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:11		1.015	0.152	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:11		1.015	0.627	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 13:41		101.5	348	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:16		1.015	0.0245	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:04		1.015	0.000936	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 18:04		1.015	0.143	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:04		1.015	0.000573	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:04		1.015	0.000114	mg/L	0.000068	0.000203	J
* Lead, Total	8/9/21 10:19	8/9/21 18:04		1.015	0.000233	mg/L	0.000068	0.000203	
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:04		1.015	0.00438	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:04		1.015	1.94	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:04		1.015	0.0125	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:56		1.015	0.0120	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB			Preparation Method: EPA 1638				
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG			Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	677	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ			Preparation Method: EPA 1638				
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	833	mg/L		75.8	

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.

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-6V

Location Code: WMWGORAP

Collected: 8/2/21 14:23

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14375

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	643	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	33.2	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:30	8/9/21 14:30		8	94.1	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:10	8/12/21 14:10		1	4.45	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 16:03	8/13/21 16:03		1	14.1	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/2/21 14:19	8/2/21 14:19			1463.17	uS/cm			FA
pH	8/2/21 14:19	8/2/21 14:19			8.76	SU			FA
Temperature	8/2/21 14:19	8/2/21 14:19			19.71	C			FA
Turbidity	8/2/21 14:19	8/2/21 14:19			2.32	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: 8/2/21 14:23

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-6V

Laboratory ID Number: BB14375

Sample	Analysis	Units	MB					Standard		Rec			Prec Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	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: 8/2/21 14:23

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-6V

Laboratory ID Number: BB14375

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00

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: 8/3/21 11:15
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14376

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:14		1.015	0.386	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 11:14		1.015	30.8	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 13:44		10.15	4.66	mg/L	0.08120	0.406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:14		1.015	0.0880	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:14		1.015	12.5	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 13:44		10.15	74.5	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:45		10.15	5.55	mg/L	0.08120	0.406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:08		1.015	0.000144	mg/L	0.000068	0.000203	J
* Barium, Total	8/9/21 10:19	8/9/21 18:08		1.015	0.589	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:08		1.015	0.000268	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 18:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:08		1.015	0.00977	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:08		1.015	1.46	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:08		1.015	0.204	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 18:59		1.015	0.192	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/5/21 23:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	143	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	333	mg/L		25	

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: 8/3/21 11:15

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14376

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	143	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.36	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:19	8/9/21 14:19		1	13.6	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:11	8/12/21 14:11		1	0.102	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 16:14	8/13/21 16:14		8	99.4	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/3/21 11:12	8/3/21 11:12			516.34	uS/cm			FA
pH	8/3/21 11:12	8/3/21 11:12			7.82	SU			FA
Temperature	8/3/21 11:12	8/3/21 11:12			19.04	C			FA
Turbidity	8/3/21 11:12	8/3/21 11:12			1.77	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: 8/3/21 11:15

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-3

Laboratory ID Number: BB14376

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14376	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00407	0.00408	0.00402	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	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: 8/3/21 11:15

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-3

Laboratory ID Number: BB14376

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14382	Alkalinity, Total as CaCO ₃	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00

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: 8/3/21 12:00
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14377

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:18		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/6/21 15:00	8/10/21 11:18		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/6/21 15:00	8/10/21 11:18		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/6/21 15:00	8/10/21 11:18		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/6/21 15:00	8/10/21 11:18		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	8/6/21 15:00	8/10/21 11:18		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:12		1.015	0.000222	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: CES						
* Chloride	8/9/21 14:20	8/9/21 14:20		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/12/21 14:12	8/12/21 14:12		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	8/13/21 16:06	8/13/21 16:06		1	0.544	mg/L	0.50	1	J

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 8/3/21 12:00

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB14377

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPEB

Sample Date: 8/3/21 12:00

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond Equipment Blank-1

Laboratory ID Number: BB14377

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-41HD

Location Code: WMWGORAP
Collected: 8/3/21 13:10
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14378

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:21		1.015	1.48	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 13:47		10.15	57.1	mg/L	0.70035	4.06	
* Iron, Total	8/6/21 15:00	8/10/21 11:21		1.015	0.0136	mg/L	0.008120	0.0406	J
* Lithium, Total	8/6/21 15:00	8/10/21 11:21		1.015	0.369	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:21		1.015	17.7	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 11:21		1.015	18.9	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:23		1.015	0.0114	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:15		1.015	0.00289	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 18:15		1.015	0.0450	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:15		1.015	0.000251	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:15		1.015	0.000849	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 18:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:15		1.015	0.0286	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:15		1.015	1.75	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:15		1.015	0.538	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:03		1.015	0.531	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB		Preparation Method: EPA 1638				
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG		Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	144	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ		Preparation Method: EPA 1638				
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	307	mg/L		25	

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: 8/3/21 13:10

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14378

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	143	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.50	mg/L			
Analytical Method: SM4500Cl E		Analyst: CES							
* Chloride	8/9/21 14:21	8/9/21 14:21		1	6.07	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:14	8/12/21 14:14		1	0.150	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 16:15	8/13/21 16:15		8	94.1	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/3/21 13:05	8/3/21 13:05			471.65	uS/cm			FA
pH	8/3/21 13:05	8/3/21 13:05			6.97	SU			FA
Temperature	8/3/21 13:05	8/3/21 13:05			18.40	C			FA
Turbidity	8/3/21 13:05	8/3/21 13:05			0.05	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: 8/3/21 13:10

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-41HD

Laboratory ID Number: BB14378

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	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: 8/3/21 13:10

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-41HD

Laboratory ID Number: BB14378

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14378	Chloride	mg/L	-0.0576	1.00	10.0	16.4	6.25	9.73	9.00 to 11.0	103	80.0 to 120	2.92	20.0
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00

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: 8/3/21 14:37
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14379

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:24		1.015	0.0721	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 13:51		10.15	43.4	mg/L	0.70035	4.06	
* Iron, Total	8/6/21 15:00	8/10/21 11:24		1.015	2.19	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:24		1.015	0.0249	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:24		1.015	13.9	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 11:24		1.015	30.0	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:26		1.015	1.87	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:19		1.015	0.000333	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 18:19		1.015	1.04	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:19		1.015	0.000284	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:19		1.015	0.000237	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 18:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:19		1.015	0.000520	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:19		1.015	1.60	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:19		1.015	0.115	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:06		1.015	0.105	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	225	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/5/21 12:30	8/11/21 09:15		1	191	mg/L		25	P

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. BB14379 MW-24H was the QC sample for batch 704264. The TDS result for BB14379 is qualified due to precision of the sample (191mg/L) and the sample duplicate (254mg/L) was outside of the specification limit. BB14380 MW-24H DUP, the field duplicate of BB14379, result for TDS was 242mg/L, indicating the outlier result is 191mg/L. LBM 8/11/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-24H

Location Code: WMWGORAP
Collected: 8/3/21 14:37
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14379

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	225	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.34	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 10:45	8/12/21 10:45		1	2.94	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:15	8/12/21 14:15		1	0.208	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 16:08	8/13/21 16:08		1	6.21	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/3/21 14:34	8/3/21 14:34			410.25	uS/cm			FA
pH	8/3/21 14:34	8/3/21 14:34			6.94	SU			FA
Temperature	8/3/21 14:34	8/3/21 14:34			19.09	C			FA
Turbidity	8/3/21 14:34	8/3/21 14:34			2.23	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. BB14379 MW-24H was the QC sample for batch 704264. The TDS result for BB14379 is qualified due to precision of the sample (191mg/L) and the sample duplicate (254mg/L) was outside of the specification limit. BB14380 MW-24H DUP, the field duplicate of BB14379, result for TDS was 242mg/L, indicating the outlier result is 191mg/L. LBM 8/11/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 8/3/21 14:37

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-24H

Laboratory ID Number: BB14379

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. BB14379 MW-24H was the QC sample for batch 704264. The TDS result for BB14379 is qualified due to precision of the sample (191mg/L) and the sample duplicate (254mg/L) was outside of the specification limit. BB14380 MW-24H DUP, the field duplicate of BB14379, result for TDS was 242mg/L, indicating the outlier result is 191mg/L. LBM 8/11/21

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 8/3/21 14:37

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-24H

Laboratory ID Number: BB14379

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14379	Solids, Dissolved	mg/L	-2.00	25.0			254	43.0	40.0 to 60.0			14.2	5.00
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. BB14379 MW-24H was the QC sample for batch 704264. The TDS result for BB14379 is qualified due to precision of the sample (191mg/L) and the sample duplicate (254mg/L) was outside of the specification limit. BB14380 MW-24H DUP, the field duplicate of BB14379, result for TDS was 242mg/L, indicating the outlier result is 191mg/L. LBM 8/11/21

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-24H DUP

Location Code: WMWGORAP
Collected: 8/3/21 14:37
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14380

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638					
* Boron, Total	8/6/21 15:00	8/10/21 11:28		1.015	0.0710	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/6/21 15:00	8/10/21 13:54		10.15	44.2	mg/L	0.70035	4.06		
* Iron, Total	8/6/21 15:00	8/10/21 11:28		1.015	2.20	mg/L	0.008120	0.0406		
* Lithium, Total	8/6/21 15:00	8/10/21 11:28		1.015	0.0249	mg/L	0.007105	0.01999956		
* Magnesium, Total	8/6/21 15:00	8/10/21 11:28		1.015	13.8	mg/L	0.021315	0.406		
* Sodium, Total	8/6/21 15:00	8/10/21 11:28		1.015	30.0	mg/L	0.03045	0.406		
Analytical Method: EPA 200.7		Analyst: RDA								
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:30		1.015	1.89	mg/L	0.008120	0.0406		
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638					
* Antimony, Total	8/9/21 10:19	8/9/21 18:22		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Arsenic, Total	8/9/21 10:19	8/9/21 18:22		1.015	0.000210	mg/L	0.000068	0.000203		
* Barium, Total	8/9/21 10:19	8/9/21 18:22		1.015	1.04	mg/L	0.000102	0.000203		
* Beryllium, Total	8/9/21 10:19	8/9/21 18:22		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/9/21 10:19	8/9/21 18:22		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/9/21 10:19	8/9/21 18:22		1.015	0.000447	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/9/21 10:19	8/9/21 18:22		1.015	0.000231	mg/L	0.000068	0.000203		
* Lead, Total	8/9/21 10:19	8/9/21 18:22		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:22		1.015	0.000540	mg/L	0.000068	0.000203		
* Potassium, Total	8/9/21 10:19	8/9/21 18:22		1.015	1.58	mg/L	0.169505	0.5075		
* Manganese, Total	8/9/21 10:19	8/9/21 18:22		1.015	0.115	mg/L	0.000068	0.000203		
* Selenium, Total	8/9/21 10:19	8/9/21 18:22		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/9/21 10:19	8/9/21 18:22		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 200.8		Analyst: DLJ								
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:10		1.015	0.109	mg/L	0.000068	0.000203		
Analytical Method: EPA 245.1		Analyst: ABB								
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:31		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: SM 2320 B		Analyst: JAG								
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	228	mg/L		0.1		
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	242	mg/L		25		

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: 8/3/21 14:37
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14380

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	228	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.33	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 10:46	8/12/21 10:46		1	2.91	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:16	8/12/21 14:16		1	0.198	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/13/21 16:09	8/13/21 16:09		1	6.35	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/3/21 14:34	8/3/21 14:34			410.25	uS/cm			FA
pH	8/3/21 14:34	8/3/21 14:34			6.94	SU			FA
Temperature	8/3/21 14:34	8/3/21 14:34			19.09	C			FA
Turbidity	8/3/21 14:34	8/3/21 14:34			2.23	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: 8/3/21 14:37

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-24H DUP

Laboratory ID Number: BB14380

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14380	Magnesium, Total	mg/L	-0.000591	0.0462	5.00	18.7	18.8	4.97	4.25 to 5.75	98.0	70.0 to 130	0.533	20.0
BB14380	Molybdenum, Total	mg/L	0.0000107	0.000147	0.100	0.100	0.101	0.0993	0.0850 to 0.115	99.5	70.0 to 130	0.995	20.0
BB14380	Boron, Total	mg/L	0.000608	0.0650	1.00	1.07	1.09	0.983	0.850 to 1.15	99.9	70.0 to 130	1.85	20.0
BB14380	Lithium, Total	mg/L	-2.020E-05	0.0154	0.200	0.239	0.242	0.198	0.170 to 0.230	107	70.0 to 130	1.25	20.0
BB14380	Arsenic, Total	mg/L	-0.0000378	0.000147	0.100	0.108	0.106	0.107	0.0850 to 0.115	108	70.0 to 130	1.87	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14380	Iron, Total	mg/L	0.000797	0.0176	0.2	2.40	2.40	0.202	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BB14380	Thallium, Total	mg/L	-0.0000006	0.000147	0.100	0.109	0.112	0.111	0.0850 to 0.115	109	70.0 to 130	2.71	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14380	Cadmium, Total	mg/L	0.00001	0.000147	0.100	0.0974	0.0996	0.0989	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BB14380	Lead, Total	mg/L	0.0000034	0.000147	0.100	0.105	0.109	0.109	0.0850 to 0.115	105	70.0 to 130	3.74	20.0
BB14380	Potassium, Total	mg/L	0.00962	0.367	10.0	11.8	12.0	10.4	8.50 to 11.5	102	70.0 to 130	1.68	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14380	Chromium, Total	mg/L	-0.0000504	0.000440	0.100	0.106	0.106	0.104	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BB14380	Antimony, Total	mg/L	0.000112	0.00100	0.100	0.0969	0.101	0.0981	0.0850 to 0.115	96.9	70.0 to 130	4.14	20.0
BB14380	Sodium, Total	mg/L	0.000156	0.0660	5.00	35.0	35.2	4.80	4.25 to 5.75	100	70.0 to 130	0.570	20.0
BB14380	Manganese, Total	mg/L	0.0000143	0.000147	0.100	0.216	0.213	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BB14380	Beryllium, Total	mg/L	0.000054	0.000880	0.100	0.107	0.111	0.103	0.0850 to 0.115	107	70.0 to 130	3.67	20.0
BB14380	Cobalt, Total	mg/L	0.0000003	0.000147	0.100	0.105	0.104	0.105	0.0850 to 0.115	105	70.0 to 130	0.957	20.0
BB14380	Selenium, Total	mg/L	0.0000598	0.00100	0.100	0.104	0.105	0.107	0.0850 to 0.115	104	70.0 to 130	0.957	20.0
BB14380	Barium, Total	mg/L	-0.0000008	0.000200	0.100	1.14	1.15	0.106	0.0850 to 0.115	100	70.0 to 130	0.873	20.0
BB14380	Calcium, Total	mg/L	0.00206	0.152	5.00	47.8	48.3	5.06	4.25 to 5.75	72.0	70.0 to 130	1.04	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: 8/3/21 14:37

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-24H DUP

Laboratory ID Number: BB14380

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14380	Sulfate	mg/L	0.558	1.00	20.0	26.0	6.45	18.1	18.0 to 22.0	98.2	80.0 to 120	1.56	20.0
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14380	Fluoride	mg/L	0.022	0.100	2.50	2.93	0.207	2.56	2.25 to 2.75	109	80.0 to 120	4.44	20.0
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0

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-38H

Location Code: WMWGORAP
Collected: 8/4/21 11:15
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14381

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:51		1.015	0.0479	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 11:51		1.015	12.2	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 11:51		1.015	0.104	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:51		1.015	0.0672	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:51		1.015	3.78	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 14:11		10.15	124	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:33		1.015	0.0672	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:51		1.015	0.00287	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 18:51		1.015	0.359	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:51		1.015	0.00377	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:51		1.015	6.30	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:51		1.015	0.0370	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:14		1.015	0.0346	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	263	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	368	mg/L		25	

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: 8/4/21 11:15

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14381

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	260	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	2.56	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 10:48	8/12/21 10:48		4	33.1	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:36	8/10/21 15:36		1	0.305	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 08:55	8/17/21 08:55		1	32.3	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/4/21 11:11	8/4/21 11:11			689.92	uS/cm			FA
pH	8/4/21 11:11	8/4/21 11:11			7.75	SU			FA
Temperature	8/4/21 11:11	8/4/21 11:11			19.70	C			FA
Turbidity	8/4/21 11:11	8/4/21 11:11			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.

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 8/4/21 11:15

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-38H

Laboratory ID Number: BB14381

Sample	Analysis	Units	MB				Standard			Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	0.00	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	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: 8/4/21 11:15

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-38H

Laboratory ID Number: BB14381

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	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-42H

Location Code: WMWGORAP
Collected: 8/4/21 13:45
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14382

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:55		1.015	0.0578	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 14:14		10.15	133	mg/L	0.70035	4.06	
* Iron, Total	8/6/21 15:00	8/10/21 14:14		10.15	4.52	mg/L	0.08120	0.406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:55		1.015	0.0348	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 14:14		10.15	47.6	mg/L	0.21315	4.06	
* Sodium, Total	8/6/21 15:00	8/10/21 11:55		1.015	33.3	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 12:36		1.015	3.93	mg/L	0.008120	0.0406	RA
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:55		1.015	0.00846	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 18:55		1.015	0.0256	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:55		1.015	0.000262	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:55		1.015	0.000616	mg/L	0.000068	0.000203	
* Lead, Total	8/9/21 10:19	8/9/21 18:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:55		1.015	0.00169	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:55		1.015	2.20	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:55		1.015	0.967	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:17		1.015	0.932	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/6/21 11:08	8/6/21 12:10		1	218	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	740	mg/L		50	

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: 8/4/21 13:45
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14382

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	218	mg/L			
Carbonate Alkalinity, (calc.)	8/6/21 11:08	8/6/21 12:10		1	0.10	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 10:49	8/12/21 10:49		1	9.75	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:37	8/10/21 15:37		1	0.203	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 08:56	8/17/21 08:56		16	372	mg/L	8.00	16	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/4/21 13:41	8/4/21 13:41			985.60	uS/cm			FA
pH	8/4/21 13:41	8/4/21 13:41			6.41	SU			FA
Temperature	8/4/21 13:41	8/4/21 13:41			18.41	C			FA
Turbidity	8/4/21 13:41	8/4/21 13:41			8.95	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: 8/4/21 13:45

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-42H

Laboratory ID Number: BB14382

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14382	Manganese, Dissolved	mg/L	0.0000232	0.000147	0.100	1.03	1.02	0.0985	0.0850 to 0.115	98.0	70.0 to 130	0.976	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14382	Iron, Dissolved	mg/L	0.000399	0.0176	0.2	4.04	4.04	0.204	0.170 to 0.230	55.0	70.0 to 130	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.

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 8/4/21 13:45

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-42H

Laboratory ID Number: BB14382

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14382	Alkalinity, Total as CaCO3	mg/L					214	53.2	45.0 to 55.0			1.85	10.0
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	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: 8/2/21 13:05
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14383

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 11:58		1.015	0.0368	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 11:58		1.015	33.0	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 11:58		1.015	1.07	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 11:58		1.015	0.0560	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 11:58		1.015	13.0	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 14:18		10.15	89.0	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:00		1.015	0.852	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 18:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 18:58		1.015	0.000135	mg/L	0.000068	0.000203	J
* Barium, Total	8/9/21 10:19	8/9/21 18:58		1.015	0.353	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 18:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 18:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 18:58		1.015	0.000323	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 18:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 18:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 18:58		1.015	0.00206	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 18:58		1.015	2.23	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 18:58		1.015	0.0284	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 18:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 18:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:46		1.015	0.0273	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	315	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	333	mg/L		25	

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: 8/2/21 13:05

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14383

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	314	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	1.20	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 10:50	8/12/21 10:50		1	3.12	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:38	8/10/21 15:38		1	0.276	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 08:58	8/17/21 08:58		1	10.2	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/2/21 13:01	8/2/21 13:01			562.64	uS/cm			FA
pH	8/2/21 13:01	8/2/21 13:01			7.65	SU			FA
Temperature	8/2/21 13:01	8/2/21 13:01			19.26	C			FA
Turbidity	8/2/21 13:01	8/2/21 13:01			0.48	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: 8/2/21 13:05

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-17V

Laboratory ID Number: BB14383

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14389	Iron, Dissolved	mg/L	0.000295	0.0176	0.2	0.221	0.218	0.218	0.170 to 0.230	103	70.0 to 130	1.37	20.0
BB14389	Manganese, Dissolved	mg/L	0.0000686	0.000147	0.100	0.104	0.100	0.0956	0.0850 to 0.115	95.8	70.0 to 130	3.92	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	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: 8/2/21 13:05

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-17V

Laboratory ID Number: BB14383

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	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: 8/3/21 10:25
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14384

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 12:02		1.015	0.0729	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 12:02		1.015	2.17	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 12:02		1.015	0.0768	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 12:02		1.015	0.0680	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 12:02		1.015	0.694	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 14:21		101.5	174	mg/L	3.045	40.6	
Analytical Method: EPA 200.7			Analyst: RDA						
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:03		1.015	0.0403	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 19:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 19:02		1.015	0.000862	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 19:02		1.015	0.0889	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 19:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 19:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 19:02		1.015	0.000408	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 19:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 19:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 19:02		1.015	0.00157	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 19:02		1.015	0.846	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 19:02		1.015	0.00530	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 19:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 19:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ						
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:50		1.015	0.00504	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	385	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	435	mg/L		25	

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: 8/3/21 10:25

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14384

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	372	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	13.0	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 10:51	8/12/21 10:51		1	5.88	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:39	8/10/21 15:39		1	0.300	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 08:59	8/17/21 08:59		1	7.58	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/3/21 10:20	8/3/21 10:20			732.95	uS/cm			FA
pH	8/3/21 10:20	8/3/21 10:20			8.60	SU			FA
Temperature	8/3/21 10:20	8/3/21 10:20			18.36	C			FA
Turbidity	8/3/21 10:20	8/3/21 10:20			1.03	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: 8/3/21 10:25

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: BB14384

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14389	Iron, Dissolved	mg/L	0.000295	0.0176	0.2	0.221	0.218	0.218	0.170 to 0.230	103	70.0 to 130	1.37	20.0
BB14389	Manganese, Dissolved	mg/L	0.0000686	0.000147	0.100	0.104	0.100	0.0956	0.0850 to 0.115	95.8	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: 8/3/21 10:25

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: BB14384

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	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 DUP

Location Code: WMWGORAP
Collected: 8/3/21 10:25
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14385

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 12:05		1.015	0.0724	mg/L	0.030000	0.1015	J
* Calcium, Total	8/6/21 15:00	8/10/21 12:05		1.015	2.16	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 12:05		1.015	0.0767	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 12:05		1.015	0.0678	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 12:05		1.015	0.687	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 14:25		101.5	173	mg/L	3.045	40.6	
Analytical Method: EPA 200.7		Analyst: RDA							
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:07		1.015	0.0402	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 19:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 19:05		1.015	0.000842	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 19:05		1.015	0.0875	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 19:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 19:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 19:05		1.015	0.000305	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 19:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 19:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 19:05		1.015	0.00151	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 19:05		1.015	0.842	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 19:05		1.015	0.00559	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 19:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 19:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:53		1.015	0.00480	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	386	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	431	mg/L		25	

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 DUP

Location Code: WMWGORAP

Collected: 8/3/21 10:25

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14385

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	373	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	13.0	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 10:52	8/12/21 10:52		1	5.75	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:40	8/10/21 15:40		1	0.295	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:00	8/17/21 09:00		1	7.92	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/3/21 10:20	8/3/21 10:20			732.95	uS/cm			FA
pH	8/3/21 10:20	8/3/21 10:20			8.60	SU			FA
Temperature	8/3/21 10:20	8/3/21 10:20			18.36	C			FA
Turbidity	8/3/21 10:20	8/3/21 10:20			1.03	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: 8/3/21 10:25

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-17 DUP

Laboratory ID Number: BB14385

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14389	Iron, Dissolved	mg/L	0.000295	0.0176	0.2	0.221	0.218	0.218	0.170 to 0.230	103	70.0 to 130	1.37	20.0
BB14389	Manganese, Dissolved	mg/L	0.0000686	0.000147	0.100	0.104	0.100	0.0956	0.0850 to 0.115	95.8	70.0 to 130	3.92	20.0
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	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: 8/3/21 10:25

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-17 DUP

Laboratory ID Number: BB14385

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	20.0
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00

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-2

Location Code: WMWGORAPFB
Collected: 8/3/21 11:00
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14386

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 12:08		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/6/21 15:00	8/10/21 12:08		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/6/21 15:00	8/10/21 12:08		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/6/21 15:00	8/10/21 12:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/6/21 15:00	8/10/21 12:08		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	8/6/21 15:00	8/10/21 12:08		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 19:09		1.015	0.000271	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 19:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 00:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	8/12/21 10:54	8/12/21 10:54		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: CES						
* Fluoride	8/10/21 15:42	8/10/21 15:42		1	0.0843	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	8/17/21 09:01	8/17/21 09:01		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 8/3/21 11:00

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond Field Blank-2

Laboratory ID Number: BB14386

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	20.0
BB14386	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00405	0.00411	0.00406	0.00340 to 0.00460	101	70.0 to 130	1.47	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 8/3/21 11:00

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond Field Blank-2

Laboratory ID Number: BB14386

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	20.0
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - PZ-22

Location Code: WMWGORAP
Collected: 8/3/21 12:30
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14387

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638					
* Boron, Total	8/6/21 15:00	8/10/21 12:12		1.015	0.0478	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/6/21 15:00	8/10/21 12:12		1.015	16.0	mg/L	0.070035	0.406		
* Iron, Total	8/6/21 15:00	8/10/21 12:12		1.015	3.81	mg/L	0.008120	0.0406		
* Lithium, Total	8/6/21 15:00	8/10/21 12:12		1.015	0.0685	mg/L	0.007105	0.01999956		
* Magnesium, Total	8/6/21 15:00	8/10/21 12:12		1.015	7.33	mg/L	0.021315	0.406		
* Sodium, Total	8/6/21 15:00	8/10/21 14:28		101.5	131	mg/L	3.045	40.6		
Analytical Method: EPA 200.7		Analyst: RDA								
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:10		1.015	3.93	mg/L	0.008120	0.0406		
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638					
* Antimony, Total	8/9/21 10:19	8/9/21 19:13		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Arsenic, Total	8/9/21 10:19	8/9/21 19:13		1.015	0.00296	mg/L	0.000068	0.000203		
* Barium, Total	8/9/21 10:19	8/9/21 19:13		1.015	0.0953	mg/L	0.000102	0.000203		
* Beryllium, Total	8/9/21 10:19	8/9/21 19:13		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/9/21 10:19	8/9/21 19:13		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/9/21 10:19	8/9/21 19:13		1.015	0.000242	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/9/21 10:19	8/9/21 19:13		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/9/21 10:19	8/9/21 19:13		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	8/9/21 10:19	8/9/21 19:13		1.015	0.00352	mg/L	0.000068	0.000203		
* Potassium, Total	8/9/21 10:19	8/9/21 19:13		1.015	2.84	mg/L	0.169505	0.5075		
* Manganese, Total	8/9/21 10:19	8/9/21 19:13		1.015	0.0770	mg/L	0.000068	0.000203		
* Selenium, Total	8/9/21 10:19	8/9/21 19:13		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/9/21 10:19	8/9/21 19:13		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 200.8		Analyst: DLJ								
* Manganese, Dissolved	8/9/21 13:08	8/9/21 19:57		1.015	0.0737	mg/L	0.000068	0.000203		
Analytical Method: EPA 245.1		Analyst: ABB								
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 01:23		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: SM 2320 B		Analyst: JAG								
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	295	mg/L		0.1		
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	414	mg/L		25		

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: 8/3/21 12:30

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14387

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	294	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	0.84	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 10:55	8/12/21 10:55		1	2.67	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:43	8/10/21 15:43		1	0.419	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:02	8/17/21 09:02		4	74.7	mg/L	2.00	4	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/3/21 12:25	8/3/21 12:25			679.04	uS/cm			FA
pH	8/3/21 12:25	8/3/21 12:25			7.74	SU			FA
Temperature	8/3/21 12:25	8/3/21 12:25			19.96	C			FA
Turbidity	8/3/21 12:25	8/3/21 12:25			0.74	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: 8/3/21 12:30

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - PZ-22

Laboratory ID Number: BB14387

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00414	0.00414	0.00404	0.00340 to 0.00460	104	70.0 to 130	0.00	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14389	Iron, Dissolved	mg/L	0.000295	0.0176	0.2	0.221	0.218	0.218	0.170 to 0.230	103	70.0 to 130	1.37	20.0
BB14389	Manganese, Dissolved	mg/L	0.0000686	0.000147	0.100	0.104	0.100	0.0956	0.0850 to 0.115	95.8	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: 8/3/21 12:30

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - PZ-22

Laboratory ID Number: BB14387

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	20.0
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00

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: 8/4/21 10:40
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14388

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/6/21 15:00	8/10/21 12:15		1.015	0.126	mg/L	0.030000	0.1015	
* Calcium, Total	8/6/21 15:00	8/10/21 12:15		1.015	4.58	mg/L	0.070035	0.406	
* Iron, Total	8/6/21 15:00	8/10/21 12:15		1.015	0.0529	mg/L	0.008120	0.0406	
* Lithium, Total	8/6/21 15:00	8/10/21 12:15		1.015	0.0706	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/6/21 15:00	8/10/21 12:15		1.015	1.01	mg/L	0.021315	0.406	
* Sodium, Total	8/6/21 15:00	8/10/21 14:31		101.5	302	mg/L	3.045	40.6	
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:14		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8			Analyst: ABB		Preparation Method: EPA 1638				
* Antimony, Total	8/9/21 10:19	8/9/21 19:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/9/21 10:19	8/9/21 19:16		1.015	0.00125	mg/L	0.000068	0.000203	
* Barium, Total	8/9/21 10:19	8/9/21 19:16		1.015	0.102	mg/L	0.000102	0.000203	
* Beryllium, Total	8/9/21 10:19	8/9/21 19:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/9/21 10:19	8/9/21 19:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/9/21 10:19	8/9/21 19:16		1.015	0.000310	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/9/21 10:19	8/9/21 19:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/9/21 10:19	8/9/21 19:16		1.015	0.000265	mg/L	0.000068	0.000203	
* Molybdenum, Total	8/9/21 10:19	8/9/21 19:16		1.015	0.00385	mg/L	0.000068	0.000203	
* Potassium, Total	8/9/21 10:19	8/9/21 19:16		1.015	3.33	mg/L	0.169505	0.5075	
* Manganese, Total	8/9/21 10:19	8/9/21 19:16		1.015	0.00880	mg/L	0.000068	0.000203	
* Selenium, Total	8/9/21 10:19	8/9/21 19:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/9/21 10:19	8/9/21 19:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Manganese, Dissolved	8/9/21 13:08	8/9/21 20:00		1.015	0.00864	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB		Preparation Method: EPA 1638				
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 01:26		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG		Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	263	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ		Preparation Method: EPA 1638				
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	855	mg/L		75.8	

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.

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-43H

Location Code: WMWGORAP

Collected: 8/4/21 10:40

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14388

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	258	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	5.06	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 10:56	8/12/21 10:56		10	69.4	mg/L	5.00	10	R
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:44	8/10/21 15:44		1	0.289	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:04	8/17/21 09:04		16	301	mg/L	8.00	16	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/4/21 10:36	8/4/21 10:36			1405.47	uS/cm			FA
pH	8/4/21 10:36	8/4/21 10:36			8.75	SU			FA
Temperature	8/4/21 10:36	8/4/21 10:36			20.39	C			FA
Turbidity	8/4/21 10:36	8/4/21 10:36			3.68	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: 8/4/21 10:40

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-43H

Laboratory ID Number: BB14388

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14389	Iron, Dissolved	mg/L	0.000295	0.0176	0.2	0.221	0.218	0.218	0.170 to 0.230	103	70.0 to 130	1.37	20.0
BB14389	Manganese, Dissolved	mg/L	0.0000686	0.000147	0.100	0.104	0.100	0.0956	0.0850 to 0.115	95.8	70.0 to 130	3.92	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00414	0.00414	0.00404	0.00340 to 0.00460	104	70.0 to 130	0.00	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	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: 8/4/21 10:40

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-43H

Laboratory ID Number: BB14388

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14388	Chloride	mg/L	-0.103	1.00	100	195	71.9	9.64	9.00 to 11.0	126	80.0 to 120	3.54	20.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	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: 8/4/21 13:13
Customer ID:
Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14389

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638					
* Boron, Total	8/6/21 15:00	8/10/21 12:18		1.015	0.0449	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/6/21 15:00	8/10/21 12:18		1.015	5.78	mg/L	0.070035	0.406		
* Iron, Total	8/6/21 15:00	8/10/21 12:18		1.015	0.0448	mg/L	0.008120	0.0406		
* Lithium, Total	8/6/21 15:00	8/10/21 12:18		1.015	0.0455	mg/L	0.007105	0.01999956		
* Magnesium, Total	8/6/21 15:00	8/10/21 12:18		1.015	1.26	mg/L	0.021315	0.406		
* Sodium, Total	8/6/21 15:00	8/10/21 14:35		101.5	157	mg/L	3.045	40.6	RA	
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638					
* Iron, Dissolved	8/6/21 12:30	8/9/21 13:17		1.015	0.0154	mg/L	0.008120	0.0406	J	
Analytical Method: EPA 200.8		Analyst: ABB			Preparation Method: EPA 1638					
* Antimony, Total	8/9/21 10:19	8/9/21 19:20		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Arsenic, Total	8/9/21 10:19	8/9/21 19:20		1.015	0.00246	mg/L	0.000068	0.000203		
* Barium, Total	8/9/21 10:19	8/9/21 19:20		1.015	0.0905	mg/L	0.000102	0.000203		
* Beryllium, Total	8/9/21 10:19	8/9/21 19:20		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/9/21 10:19	8/9/21 19:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/9/21 10:19	8/9/21 19:20		1.015	0.000317	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/9/21 10:19	8/9/21 19:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/9/21 10:19	8/9/21 19:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Molybdenum, Total	8/9/21 10:19	8/9/21 19:20		1.015	0.0170	mg/L	0.000068	0.000203		
* Potassium, Total	8/9/21 10:19	8/9/21 19:20		1.015	8.47	mg/L	0.169505	0.5075		
* Manganese, Total	8/9/21 10:19	8/9/21 19:20		1.015	0.00868	mg/L	0.000068	0.000203		
* Selenium, Total	8/9/21 10:19	8/9/21 19:20		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/9/21 10:19	8/9/21 19:20		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Manganese, Dissolved	8/9/21 13:08	8/9/21 20:04		1.015	0.00820	mg/L	0.000068	0.000203		
Analytical Method: EPA 245.1		Analyst: ABB			Preparation Method: EPA 1638					
* Mercury, Total by CVAA	8/5/21 19:25	8/6/21 01:30		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: SM 2320 B		Analyst: JAG			Preparation Method: EPA 1638					
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	207	mg/L		0.1		
Analytical Method: SM 2540C		Analyst: CNJ			Preparation Method: EPA 1638					
* Solids, Dissolved	8/6/21 09:08	8/11/21 12:25		1	449	mg/L		25		

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: 8/4/21 13:13

Customer ID:

Submittal Date: 8/5/21 10:49

Laboratory ID Number: BB14389

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	202	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	4.46	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:09	8/12/21 11:09		8	59.8	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		Analyst: CES							
* Fluoride	8/10/21 15:45	8/10/21 15:45		1	0.310	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:05	8/17/21 09:05		8	83.7	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/4/21 13:09	8/4/21 13:09			837.98	uS/cm			FA
pH	8/4/21 13:09	8/4/21 13:09			8.37	SU			FA
Temperature	8/4/21 13:09	8/4/21 13:09			22.80	C			FA
Turbidity	8/4/21 13:09	8/4/21 13:09			1.89	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: 8/4/21 13:13

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-36H

Laboratory ID Number: BB14389

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14389	Lead, Total	mg/L	0.000002	0.000147	0.100	0.106	0.110	0.110	0.0850 to 0.115	106	70.0 to 130	3.70	20.0
BB14389	Selenium, Total	mg/L	0.0000555	0.00100	0.100	0.103	0.105	0.103	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BB14389	Chromium, Total	mg/L	-0.0000645	0.000440	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Molybdenum, Total	mg/L	0.0000175	0.000147	0.100	0.112	0.119	0.0997	0.0850 to 0.115	95.0	70.0 to 130	6.06	20.0
BB14389	Barium, Total	mg/L	0.0000004	0.000200	0.100	0.182	0.196	0.102	0.0850 to 0.115	91.5	70.0 to 130	7.41	20.0
BB14389	Cobalt, Total	mg/L	0.0000002	0.000147	0.100	0.103	0.107	0.106	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BB14389	Antimony, Total	mg/L	0.000162	0.00100	0.100	0.0964	0.103	0.0951	0.0850 to 0.115	96.4	70.0 to 130	6.62	20.0
BB14389	Manganese, Total	mg/L	0.0000024	0.000147	0.100	0.109	0.113	0.103	0.0850 to 0.115	100	70.0 to 130	3.60	20.0
BB14389	Thallium, Total	mg/L	-0.0000003	0.000147	0.100	0.110	0.108	0.112	0.0850 to 0.115	110	70.0 to 130	1.83	20.0
BB14389	Iron, Dissolved	mg/L	0.000295	0.0176	0.2	0.221	0.218	0.218	0.170 to 0.230	103	70.0 to 130	1.37	20.0
BB14389	Manganese, Dissolved	mg/L	0.0000686	0.000147	0.100	0.104	0.100	0.0956	0.0850 to 0.115	95.8	70.0 to 130	3.92	20.0
BB14389	Lithium, Total	mg/L	-2.470E-05	0.0154	0.200	0.276	0.277	0.199	0.170 to 0.230	115	70.0 to 130	0.362	20.0
BB14389	Beryllium, Total	mg/L	0.0000487	0.000880	0.100	0.110	0.113	0.106	0.0850 to 0.115	110	70.0 to 130	2.69	20.0
BB14389	Calcium, Total	mg/L	0.00209	0.152	5.00	10.8	10.8	5.09	4.25 to 5.75	100	70.0 to 130	0.00	20.0
BB14389	Arsenic, Total	mg/L	-0.0000528	0.000147	0.100	0.112	0.108	0.105	0.0850 to 0.115	110	70.0 to 130	3.64	20.0
BB14389	Boron, Total	mg/L	0.00121	0.0650	1.00	1.04	1.05	0.990	0.850 to 1.15	99.5	70.0 to 130	0.957	20.0
BB14389	Magnesium, Total	mg/L	-0.000548	0.0462	5.00	6.13	6.14	5.01	4.25 to 5.75	97.4	70.0 to 130	0.163	20.0
BB14389	Mercury, Total by CVAA	mg/L	3.000E-05	0.000500	0.004	0.00414	0.00414	0.00404	0.00340 to 0.00460	104	70.0 to 130	0.00	20.0
BB14389	Potassium, Total	mg/L	0.0450	0.367	10.0	18.7	18.8	10.5	8.50 to 11.5	102	70.0 to 130	0.533	20.0
BB14389	Sodium, Total	mg/L	0.00945	0.0660	5.00	159	162	4.84	4.25 to 5.75	40.0	70.0 to 130	1.87	20.0
BB14389	Iron, Total	mg/L	0.000272	0.0176	0.2	0.238	0.240	0.203	0.170 to 0.230	96.6	70.0 to 130	0.837	20.0
BB14389	Cadmium, Total	mg/L	0.00000	0.000147	0.100	0.0954	0.102	0.0989	0.0850 to 0.115	95.4	70.0 to 130	6.69	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: 8/4/21 13:13

Customer ID:

Delivery Date: 8/5/21 10:49

Description: Gorgas Ash Pond - MW-36H

Laboratory ID Number: BB14389

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14389	Solids, Dissolved	mg/L	-1.00	25.0			454	42.0	40.0 to 60.0			0.554	5.00
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BB14389	Fluoride	mg/L	0.0862	0.100	2.50	2.88	0.326	2.35	2.25 to 2.75	103	80.0 to 120	5.03	20.0
BB14389	Sulfate	mg/L	-0.257	1.00	160	242	83.0	18.4	18.0 to 22.0	98.9	80.0 to 120	0.840	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: 8/9/21 11:57
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14812

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:18		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 12:53		10.15	40.2	mg/L	0.70035	4.06	
* Iron, Total	8/24/21 08:21	8/25/21 11:18		1.015	0.386	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:18		1.015	0.0354	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:18		1.015	11.8	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 11:18		1.015	19.2	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:11		1.015	0.383	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:05		1.015	0.00179	mg/L	0.000508	0.001015	
* Arsenic, Total	8/16/21 13:02	8/17/21 14:05		1.015	0.00308	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:05		1.015	0.194	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:05		1.015	0.000308	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:05		1.015	0.00452	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:05		1.015	1.50	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:05		1.015	0.0356	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:30		1.015	0.0363	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 17:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	157	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	219	mg/L		25	

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: 8/9/21 11:57

Customer ID:

Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14812

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	156	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	1.06	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:11	8/12/21 11:11		1	2.75	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:28	8/12/21 14:28		1	0.139	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:17	8/17/21 09:17		1	17.3	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/9/21 11:54	8/9/21 11:54			345.79	uS/cm			FA
pH	8/9/21 11:54	8/9/21 11:54			7.98	SU			FA
Temperature	8/9/21 11:54	8/9/21 11:54			20.61	C			FA
Turbidity	8/9/21 11:54	8/9/21 11:54			0.74	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: 8/9/21 11:57

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: BB14812

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	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: 8/9/21 11:57

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: BB14812

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14812	Solids, Dissolved	mg/L	-2.00	25.0			201	45.0	40.0 to 60.0			4.29	5.00
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	20.0
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	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-3

Location Code: WMWGORAPFB
Collected: 8/9/21 13:45
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14813

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:21		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 11:21		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/24/21 08:21	8/25/21 11:21		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/24/21 08:21	8/25/21 11:21		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/24/21 08:21	8/25/21 11:21		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	8/24/21 08:21	8/25/21 11:21		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:08		1.015	0.000279	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 17:46		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E			Analyst: JCC						
* Chloride	8/12/21 11:12	8/12/21 11:12		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/12/21 14:29	8/12/21 14:29		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011			Analyst: JCC						
* Sulfate	8/17/21 09:18	8/17/21 09:18		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 8/9/21 13:45

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond Field Blank-3

Laboratory ID Number: BB14813

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 8/9/21 13:45

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond Field Blank-3

Laboratory ID Number: BB14813

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	20.0
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-12V

Location Code: WMWGORAP
Collected: 8/9/21 15:13
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14814

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:25		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 11:25		1.015	35.7	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 11:25		1.015	1.56	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:25		1.015	0.0398	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:25		1.015	8.60	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 11:25		1.015	19.3	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:14		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:12		1.015	0.000891	mg/L	0.000508	0.001015	J
* Arsenic, Total	8/16/21 13:02	8/17/21 14:12		1.015	0.00112	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:12		1.015	1.07	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:12		1.015	0.00146	mg/L	0.000203	0.001015	
* Cobalt, Total	8/16/21 13:02	8/17/21 14:12		1.015	0.000433	mg/L	0.000068	0.000203	
* Lead, Total	8/16/21 13:02	8/17/21 14:12		1.015	0.000476	mg/L	0.000068	0.000203	
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:12		1.015	0.00302	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:12		1.015	4.22	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:12		1.015	0.0320	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:33		1.015	0.00995	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB		Preparation Method: EPA 1638				
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 17:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG		Preparation Method: EPA 1638				
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	124	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ		Preparation Method: EPA 1638				
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	145	mg/L		25	

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: 8/9/21 15:13
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14814

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	118	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	5.45	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:13	8/12/21 11:13		1	4.44	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:31	8/12/21 14:31		1	0.187	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:19	8/17/21 09:19		1	1.85	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/9/21 15:10	8/9/21 15:10			222.60	uS/cm			FA
pH	8/9/21 15:10	8/9/21 15:10			8.77	SU			FA
Temperature	8/9/21 15:10	8/9/21 15:10			27.69	C			FA
Turbidity	8/9/21 15:10	8/9/21 15:10			20.8	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: 8/9/21 15:13

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-12V

Laboratory ID Number: BB14814

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			
BB14822	Cobalt, Total	mg/L	0.000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	20.0
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	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: 8/9/21 15:13

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-12V

Laboratory ID Number: BB14814

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	20.0
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	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 DIS

Location Code: WMWGORAP
Collected: 8/9/21 15:13
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14815

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/24/21 10:30	8/24/21 12:15		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/24/21 10:30	8/24/21 12:15		1.015	24.9	mg/L	0.070035	0.406	
* Iron, Dissolved	8/24/21 10:30	8/24/21 12:15		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/24/21 10:30	8/24/21 12:15		1.015	0.0419	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/24/21 10:30	8/24/21 12:15		1.015	7.13	mg/L	0.021315	0.406	
* Sodium, Dissolved	8/24/21 10:30	8/24/21 12:15		1.015	19.9	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	0.000850	mg/L	0.000508	0.001015	J
* Arsenic, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	0.00101	mg/L	0.000068	0.000203	
* Barium, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	0.783	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	0.000224	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	0.00372	mg/L	0.000068	0.000203	
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	0.00586	mg/L	0.000068	0.000203	
* Potassium, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	4.39	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/16/21 14:00	8/17/21 10:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Dissolved by CVAA	8/17/21 12:05	8/17/21 16:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	153	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	152	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	141	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	11.5	mg/L			

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 DIS

Location Code: WMWGORAP

Collected: 8/9/21 15:13

Customer ID:

Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14815

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:14	8/12/21 11:14		1	4.73	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:32	8/12/21 14:32		1	0.194	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:21	8/17/21 09:21		1	0.533	mg/L	0.50	1	J
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/9/21 15:10	8/9/21 15:10			222.60	uS/cm			FA
pH	8/9/21 15:10	8/9/21 15:10			8.77	SU			FA
Temperature	8/9/21 15:10	8/9/21 15:10			27.69	C			FA
Turbidity	8/9/21 15:10	8/9/21 15:10			20.8	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: 8/9/21 15:13

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-12V DIS

Laboratory ID Number: BB14815

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB14824	Arsenic, Dissolved	mg/L	-0.000589	0.000147	0.100	0.358	0.363	0.105	0.0850 to 0.115	92.0	70.0 to 130	1.39	20.0
BB14824	Potassium, Dissolved	mg/L	0.00914	0.367	10.0	11.5	11.6	10.3	8.50 to 11.5	102	70.0 to 130	0.866	20.0
BB14824	Lithium, Dissolved	mg/L	5.060E-05	0.0154	0.200	0.426	0.430	0.197	0.170 to 0.230	112	70.0 to 130	0.935	20.0
BB14824	Calcium, Dissolved	mg/L	4.240E-05	0.152	5.00	16.1	16.2	5.04	4.25 to 5.75	92.0	70.0 to 130	0.619	20.0
BB14824	Sodium, Dissolved	mg/L	0.00895	0.0660	5.00	103	103	4.97	4.25 to 5.75	118	70.0 to 130	0.00	20.0
BB14824	Thallium, Dissolved	mg/L	0.0000015	0.000147	0.100	0.0941	0.0913	0.0990	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14824	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.0999	0.101	0.102	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BB14824	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.395	0.398	0.201	0.170 to 0.230	97.5	70.0 to 130	0.757	20.0
BB14824	Mercury, Dissolved by	mg/L	-4.870E-05	0.000500	0.004	0.00373	0.00376	0.00384	0.00340 to 0.00460	93.2	70.0 to 130	0.801	20.0
BB14824	Boron, Dissolved	mg/L	-0.00680	0.0650	1.00	2.73	2.75	1.02	0.850 to 1.15	104	70.0 to 130	0.730	20.0
BB14824	Chromium, Dissolved	mg/L	-0.000102	0.000440	0.100	0.0978	0.0976	0.0978	0.0850 to 0.115	97.6	70.0 to 130	0.205	20.0
BB14824	Molybdenum, Dissolved	mg/L	0.0000000	0.000147	0.100	0.299	0.298	0.0982	0.0850 to 0.115	101	70.0 to 130	0.335	20.0
BB14824	Cobalt, Dissolved	mg/L	-0.0000025	0.000147	0.100	0.101	0.0998	0.0998	0.0850 to 0.115	101	70.0 to 130	1.20	20.0
BB14824	Beryllium, Dissolved	mg/L	0.0000338	0.000880	0.100	0.104	0.104	0.108	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BB14824	Antimony, Dissolved	mg/L	0.0000900	0.00100	0.100	0.0977	0.0944	0.0941	0.0850 to 0.115	97.7	70.0 to 130	3.44	20.0
BB14824	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0974	0.0971	0.0982	0.0850 to 0.115	97.4	70.0 to 130	0.308	20.0
BB14824	Lead, Dissolved	mg/L	-0.0000008	0.000147	0.100	0.101	0.0972	0.104	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BB14824	Barium, Dissolved	mg/L	0.0000114	0.000200	0.100	0.155	0.153	0.101	0.0850 to 0.115	98.2	70.0 to 130	1.30	20.0
BB14824	Magnesium, Dissolved	mg/L	0.00140	0.0462	5.00	8.74	8.81	4.98	4.25 to 5.75	99.2	70.0 to 130	0.798	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: 8/9/21 15:13

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-12V DIS

Laboratory ID Number: BB14815

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	20.0
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	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: 8/10/21 10:06
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14816

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:28		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 12:57		10.15	54.8	mg/L	0.70035	4.06	
* Iron, Total	8/24/21 08:21	8/25/21 11:28		1.015	0.440	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:28		1.015	0.0305	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:28		1.015	15.6	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 12:57		10.15	44.4	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:18		1.015	0.434	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:16		1.015	0.00133	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:16		1.015	0.343	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:16		1.015	0.000322	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:16		1.015	0.00269	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:16		1.015	1.96	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:16		1.015	0.0252	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:40		1.015	0.0254	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 17:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	228	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	307	mg/L		25	

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: 8/10/21 10:06
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14816

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	227	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	1.07	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:15	8/12/21 11:15		1	4.83	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:33	8/12/21 14:33		1	0.283	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:22	8/17/21 09:22		1	15.2	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/10/21 10:03	8/10/21 10:03			521.45	uS/cm			FA
pH	8/10/21 10:03	8/10/21 10:03			7.72	SU			FA
Temperature	8/10/21 10:03	8/10/21 10:03			17.94	C			FA
Turbidity	8/10/21 10:03	8/10/21 10:03			1.22	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: 8/10/21 10:06

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: BB14816

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	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: 8/10/21 10:06

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: BB14816

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	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: 8/10/21 10:06
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14817

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:31		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 13:00		10.15	53.8	mg/L	0.70035	4.06	
* Iron, Total	8/24/21 08:21	8/25/21 11:31		1.015	0.446	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:31		1.015	0.0300	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:31		1.015	15.7	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:00		10.15	42.3	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:21		1.015	0.435	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:19		1.015	0.00115	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:19		1.015	0.347	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:19		1.015	0.000381	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:19		1.015	0.00271	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:19		1.015	2.04	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:19		1.015	0.0261	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:44		1.015	0.0249	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 17:58		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	261	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	321	mg/L		25	

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: 8/10/21 10:06
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14817

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	260	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	1.12	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 11:17	8/12/21 11:17		1	4.85	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:34	8/12/21 14:34		1	0.290	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:23	8/17/21 09:23		1	14.8	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/10/21 10:03	8/10/21 10:03			521.45	uS/cm			FA
pH	8/10/21 10:03	8/10/21 10:03			7.72	SU			FA
Temperature	8/10/21 10:03	8/10/21 10:03			17.94	C			FA
Turbidity	8/10/21 10:03	8/10/21 10:03			1.22	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: 8/10/21 10:06

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-19 DUP

Laboratory ID Number: BB14817

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	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: 8/10/21 10:06

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-19 DUP

Laboratory ID Number: BB14817

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	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: 8/10/21 13:04
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14818

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:35		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 13:03		10.15	45.1	mg/L	0.70035	4.06	
* Iron, Total	8/24/21 08:21	8/25/21 11:35		1.015	0.325	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:35		1.015	0.0310	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:35		1.015	14.9	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:03		10.15	42.1	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:24		1.015	0.317	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:23		1.015	0.000318	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:23		1.015	0.165	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:23		1.015	0.000292	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:23		1.015	0.00269	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:23		1.015	3.55	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:23		1.015	0.0372	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:48		1.015	0.0357	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	217	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	309	mg/L		25	

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-9V

Location Code: WMWGORAP
Collected: 8/10/21 13:04
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14818

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	217	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	0.25	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 11:18	8/12/21 11:18		1	18.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:35	8/12/21 14:35		1	0.166	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:24	8/17/21 09:24		1	32.7	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/10/21 13:01	8/10/21 13:01			562.39	uS/cm			FA
pH	8/10/21 13:01	8/10/21 13:01			7.12	SU			FA
Temperature	8/10/21 13:01	8/10/21 13:01			21.18	C			FA
Turbidity	8/10/21 13:01	8/10/21 13:01			1.99	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: 8/10/21 13:04

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-9V

Laboratory ID Number: BB14818

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	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.

Batch QC Summary

Customer Account: WMWGORAP

Sample Date: 8/10/21 13:04

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-9V

Laboratory ID Number: BB14818

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0

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: 8/9/21 11:55
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14819

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:38		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 11:38		1.015	33.2	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 11:38		1.015	0.479	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:38		1.015	0.0326	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:38		1.015	11.8	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 11:38		1.015	28.0	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:28		1.015	0.172	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:26		1.015	0.0000958	mg/L	0.000068	0.000203	J
* Barium, Total	8/16/21 13:02	8/17/21 14:26		1.015	0.334	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:26		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:26		1.015	0.000675	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:26		1.015	0.0000852	mg/L	0.000068	0.000203	J
* Lead, Total	8/16/21 13:02	8/17/21 14:26		1.015	0.000160	mg/L	0.000068	0.000203	J
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:26		1.015	0.000690	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:26		1.015	1.52	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:26		1.015	0.0139	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:51		1.015	0.0114	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	162	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	207	mg/L		25	

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: 8/9/21 11:55
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14819

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	161	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	0.58	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:19	8/12/21 11:19		1	3.08	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:37	8/12/21 14:37		1	0.131	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:25	8/17/21 09:25		1	14.4	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/9/21 11:52	8/9/21 11:52			338.98	uS/cm			FA
pH	8/9/21 11:52	8/9/21 11:52			7.53	SU			FA
Temperature	8/9/21 11:52	8/9/21 11:52			20.65	C			FA
Turbidity	8/9/21 11:52	8/9/21 11:52			7.78	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: 8/9/21 11:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: BB14819

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	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: 8/9/21 11:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: BB14819

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	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: 8/9/21 13:15
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14820

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:42		1.015	0.0747	mg/L	0.030000	0.1015	J
* Calcium, Total	8/24/21 08:21	8/25/21 11:42		1.015	18.5	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 11:42		1.015	0.185	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:42		1.015	0.0657	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:42		1.015	2.71	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:07		10.15	143	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:31		1.015	0.0271	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:30		1.015	0.000590	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:30		1.015	0.244	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:30		1.015	0.000403	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:30		1.015	0.000236	mg/L	0.000068	0.000203	
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:30		1.015	0.00221	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:30		1.015	2.15	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:30		1.015	0.00993	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:55		1.015	0.00800	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:10		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	371	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	384	mg/L		25	

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: 8/9/21 13:15

Customer ID:

Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14820

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	345	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	25.7	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 11:20	8/12/21 11:20		1	6.22	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:38	8/12/21 14:38		1	0.235	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:27	8/17/21 09:27		1	13.6	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/9/21 13:11	8/9/21 13:11			590.51	uS/cm			FA
pH	8/9/21 13:11	8/9/21 13:11			9.09	SU			FA
Temperature	8/9/21 13:11	8/9/21 13:11			18.80	C			FA
Turbidity	8/9/21 13:11	8/9/21 13:11			5.94	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: 8/9/21 13:15

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - PZ-16

Laboratory ID Number: BB14820

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	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: 8/9/21 13:15

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - PZ-16

Laboratory ID Number: BB14820

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75	108	80.0 to 120	7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14820	Chloride	mg/L	-0.0614	1.00	10.0	16.2	6.22	9.62	9.00 to 11.0	99.8	80.0 to 120	0.00	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0	92.0	80.0 to 120	0.863	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: 8/9/21 15:22
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14821

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:45		1.015	0.0630	mg/L	0.030000	0.1015	J
* Calcium, Total	8/24/21 08:21	8/25/21 11:45		1.015	1.75	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 11:45		1.015	0.131	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:45		1.015	0.0633	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:45		1.015	0.513	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:10		10.15	179	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:34		1.015	0.0886	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:34		1.015	0.000626	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:34		1.015	0.0407	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:34		1.015	0.000499	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:34		1.015	0.00412	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:34		1.015	1.07	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:34		1.015	0.00825	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 10:58		1.015	0.00743	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	345	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	436	mg/L		25	

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

Location Code: WMWGORAP

Collected: 8/9/21 15:22

Customer ID:

Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14821

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	335	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	9.73	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 11:33	8/12/21 11:33		1	7.85	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:39	8/12/21 14:39		1	0.204	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:28	8/17/21 09:28		1	3.49	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/9/21 15:18	8/9/21 15:18			689.68	uS/cm			FA
pH	8/9/21 15:18	8/9/21 15:18			8.50	SU			FA
Temperature	8/9/21 15:18	8/9/21 15:18			18.18	C			FA
Turbidity	8/9/21 15:18	8/9/21 15:18			1.07	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: 8/9/21 15:22

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-28H

Laboratory ID Number: BB14821

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	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: 8/9/21 15:22

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-28H

Laboratory ID Number: BB14821

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec			Prec Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit	Prec			
BB14821	Fluoride	mg/L	0.0179	0.100	2.50	2.90	0.219	2.57	2.25 to 2.75		108	80.0 to 120		7.09	20.0
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0					0.915	5.00
BB14821	Sulfate	mg/L	-0.283	1.00	20.0	21.9	3.46	18.2	18.0 to 22.0		92.0	80.0 to 120		0.863	20.0
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0		98.6	80.0 to 120		3.53	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0					0.678	10.0

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-32H

Location Code: WMWGORAP
Collected: 8/10/21 09:14
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14822

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 11:48		1.015	0.0393	mg/L	0.030000	0.1015	J
* Calcium, Total	8/24/21 08:21	8/25/21 11:48		1.015	3.59	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 11:48		1.015	0.0414	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 11:48		1.015	0.0466	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 11:48		1.015	0.603	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:14		10.15	139	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:38		1.015	0.0212	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:37		1.015	0.000575	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:37		1.015	0.0475	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:37		1.015	0.000268	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:37		1.015	0.0858	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:37		1.015	3.09	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:37		1.015	0.00776	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:24		1.015	0.00687	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	216	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/12/21 11:54	8/16/21 11:47		1	379	mg/L		25	

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: 8/10/21 09:14
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14822

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	211	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	4.65	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:44	8/12/21 11:44		4	36.6	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:54	8/12/21 14:54		1	0.218	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:47	8/17/21 09:47		2	45.6	mg/L	1.00	2	
Analytical Method: Field Measurements		Analyst: AWG							
Conductivity	8/10/21 09:06	8/10/21 09:06			667.85	uS/cm			FA
pH	8/10/21 09:06	8/10/21 09:06			8.35	SU			FA
Temperature	8/10/21 09:06	8/10/21 09:06			21.64	C			FA
Turbidity	8/10/21 09:06	8/10/21 09:06			1.65	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: 8/10/21 09:14

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-32H

Laboratory ID Number: BB14822

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14822	Calcium, Total	mg/L	0.00980	0.152	5.00	8.55	8.56	5.22	4.25 to 5.75	99.2	70.0 to 130	0.117	20.0
BB14822	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0986	0.0994	0.0998	0.0850 to 0.115	98.6	70.0 to 130	0.808	20.0
BB14822	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0987	0.101	0.0975	0.0850 to 0.115	98.7	70.0 to 130	2.30	20.0
BB14947	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.105	0.104	0.0989	0.0850 to 0.115	98.9	70.0 to 130	0.957	20.0
BB14822	Iron, Total	mg/L	0.000527	0.0176	0.2	0.241	0.240	0.217	0.170 to 0.230	99.8	70.0 to 130	0.416	20.0
BB14822	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.04	1.05	1.03	0.850 to 1.15	100	70.0 to 130	0.957	20.0
BB14822	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0972	0.0974	0.0970	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BB14822	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.101	0.101	0.0969	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BB14822	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.272	0.272	0.202	0.170 to 0.230	113	70.0 to 130	0.00	20.0
BB14822	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0997	0.0979	0.0999	0.0850 to 0.115	99.7	70.0 to 130	1.82	20.0
BB14822	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.147	0.147	0.0980	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14822	Potassium, Total	mg/L	0.00241	0.367	10.0	13.2	13.0	10.2	8.50 to 11.5	101	70.0 to 130	1.53	20.0
BB14822	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00405	0.00405	0.00403	0.00340 to 0.00460	101	70.0 to 130	0.00	20.0
BB14822	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.107	0.106	0.0998	0.0850 to 0.115	99.2	70.0 to 130	0.939	20.0
BB14822	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.183	0.184	0.0975	0.0850 to 0.115	97.2	70.0 to 130	0.545	20.0
BB14822	Sodium, Total	mg/L	0.00175	0.0660	5.00	145	144	5.06	4.25 to 5.75	120	70.0 to 130	0.692	20.0
BB14822	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0978	0.0961	0.0998	0.0850 to 0.115	97.5	70.0 to 130	1.75	20.0
BB14822	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.104	0.0983	0.0993	0.0850 to 0.115	104	70.0 to 130	5.64	20.0
BB14822	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.48	5.51	5.19	4.25 to 5.75	97.5	70.0 to 130	0.546	20.0
BB14822	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.104	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BB14822	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0921	0.0956	0.0916	0.0850 to 0.115	92.1	70.0 to 130	3.73	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: 8/10/21 09:14

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-32H

Laboratory ID Number: BB14822

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB14822	Solids, Dissolved	mg/L	-2.00	25.0			386	45.0	40.0 to 60.0			0.915	5.00
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	20.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0

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

Location Code: WMWGORAP
Collected: 8/9/21 12:55
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14823

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 12:05		1.015	1.62	mg/L	0.030000	0.1015	
* Calcium, Total	8/24/21 08:21	8/25/21 12:05		1.015	11.6	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 12:05		1.015	2.73	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 12:05		1.015	0.205	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 12:05		1.015	4.25	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:30		10.15	94.7	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:41		1.015	0.217	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 14:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 14:59		1.015	0.282	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 14:59		1.015	0.0891	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 14:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 14:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 14:59		1.015	0.00234	mg/L	0.000203	0.001015	
* Cobalt, Total	8/16/21 13:02	8/17/21 14:59		1.015	0.00110	mg/L	0.000068	0.000203	
* Lead, Total	8/16/21 13:02	8/17/21 14:59		1.015	0.00119	mg/L	0.000068	0.000203	
* Molybdenum, Total	8/16/21 13:02	8/17/21 14:59		1.015	0.207	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 14:59		1.015	1.54	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 14:59		1.015	0.0664	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 14:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 14:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:27		1.015	0.0360	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	108	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	340	mg/L		25	

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: 8/9/21 12:55
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14823

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	107	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	0.67	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 11:35	8/12/21 11:35		1	7.03	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:55	8/12/21 14:55		1	0.110	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:48	8/17/21 09:48		8	133	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/9/21 12:51	8/9/21 12:51			526.21	uS/cm			FA
pH	8/9/21 12:51	8/9/21 12:51			7.49	SU			FA
Temperature	8/9/21 12:51	8/9/21 12:51			19.23	C			FA
Turbidity	8/9/21 12:51	8/9/21 12:51			34.2	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: 8/9/21 12:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: BB14823

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14823	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.404	0.410	0.201	0.170 to 0.230	93.5	70.0 to 130	1.47	20.0
BB14947	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0743	0.0764	0.0998	0.0850 to 0.115	74.3	70.0 to 130	2.79	20.0
BB14947	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.112	0.110	0.101	0.0850 to 0.115	103	70.0 to 130	1.80	20.0
BB14947	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00408	0.00412	0.00403	0.00340 to 0.00460	102	70.0 to 130	0.976	20.0
BB14947	Potassium, Total	mg/L	0.00241	0.367	10.0	11.2	11.0	10.2	8.50 to 11.5	100	70.0 to 130	1.80	20.0
BB14947	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0989	0.0972	0.0999	0.0850 to 0.115	98.9	70.0 to 130	1.73	20.0
BB14947	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.305	0.301	0.202	0.170 to 0.230	125	70.0 to 130	1.32	20.0
BB14947	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.102	0.101	0.0969	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB14947	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.301	0.300	0.0980	0.0850 to 0.115	101	70.0 to 130	0.333	20.0
BB14947	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.49	5.48	5.19	4.25 to 5.75	97.6	70.0 to 130	0.182	20.0
BB14947	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0913	0.0910	0.0916	0.0850 to 0.115	91.3	70.0 to 130	0.329	20.0
BB14947	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0976	0.0981	0.0975	0.0850 to 0.115	97.6	70.0 to 130	0.511	20.0
BB14947	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.105	0.103	0.0998	0.0850 to 0.115	98.0	70.0 to 130	1.92	20.0
BB14947	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0982	0.0952	0.0998	0.0850 to 0.115	97.8	70.0 to 130	3.10	20.0
BB14947	Sodium, Total	mg/L	0.00175	0.0660	5.00	338	357	5.06	4.25 to 5.75	-40.0	70.0 to 130	5.47	20.0
BB14947	Calcium, Total	mg/L	0.00980	0.152	5.00	6.90	6.83	5.22	4.25 to 5.75	102	70.0 to 130	1.02	20.0
BB14947	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.101	0.105	0.0993	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14947	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.16	1.15	1.03	0.850 to 1.15	103	70.0 to 130	0.866	20.0
BB14947	Iron, Total	mg/L	0.000527	0.0176	0.2	0.267	0.267	0.217	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BB14947	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.110	0.111	0.0975	0.0850 to 0.115	97.5	70.0 to 130	0.905	20.0
BB14947	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.105	0.104	0.0989	0.0850 to 0.115	98.9	70.0 to 130	0.957	20.0
BB14947	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0957	0.0935	0.0970	0.0850 to 0.115	95.7	70.0 to 130	2.33	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: 8/9/21 12:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: BB14823

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0			1.31	5.00
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	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: 8/9/21 12:55
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14824

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB							
* Boron, Dissolved	8/24/21 10:30	8/24/21 12:18		1.015	1.69	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/24/21 10:30	8/24/21 12:18		1.015	11.5	mg/L	0.070035	0.406	
* Iron, Dissolved	8/24/21 10:30	8/24/21 12:18		1.015	0.200	mg/L	0.008120	0.0406	
* Lithium, Dissolved	8/24/21 10:30	8/24/21 12:18		1.015	0.203	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	8/24/21 10:30	8/24/21 12:18		1.015	3.78	mg/L	0.021315	0.406	
* Sodium, Dissolved	8/24/21 10:30	8/24/21 12:40		10.15	97.1	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	0.266	mg/L	0.000068	0.000203	
* Barium, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	0.0568	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	0.000220	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	0.198	mg/L	0.000068	0.000203	
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	0.0355	mg/L	0.000068	0.000203	
* Potassium, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	1.30	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/16/21 14:00	8/17/21 11:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Dissolved by CVAA	8/17/21 12:05	8/17/21 16:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	111	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	337	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	110	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	0.53	mg/L			

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: 8/9/21 12:55

Customer ID:

Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14824

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:36	8/12/21 11:36		1	7.04	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:56	8/12/21 14:56		1	0.103	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:49	8/17/21 09:49		8	128	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/9/21 12:51	8/9/21 12:51			526.21	uS/cm			FA
pH	8/9/21 12:51	8/9/21 12:51			7.49	SU			FA
Temperature	8/9/21 12:51	8/9/21 12:51			19.23	C			FA
Turbidity	8/9/21 12:51	8/9/21 12:51			34.2	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: 8/9/21 12:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-7 DIS

Laboratory ID Number: BB14824

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14824	Arsenic, Dissolved	mg/L	-0.000589	0.000147	0.100	0.358	0.363	0.105	0.0850 to 0.115	92.0	70.0 to 130	1.39	20.0
BB14824	Potassium, Dissolved	mg/L	0.00914	0.367	10.0	11.5	11.6	10.3	8.50 to 11.5	102	70.0 to 130	0.866	20.0
BB14824	Lithium, Dissolved	mg/L	5.060E-05	0.0154	0.200	0.426	0.430	0.197	0.170 to 0.230	112	70.0 to 130	0.935	20.0
BB14824	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.395	0.398	0.201	0.170 to 0.230	97.5	70.0 to 130	0.757	20.0
BB14824	Calcium, Dissolved	mg/L	4.240E-05	0.152	5.00	16.1	16.2	5.04	4.25 to 5.75	92.0	70.0 to 130	0.619	20.0
BB14824	Sodium, Dissolved	mg/L	0.00895	0.0660	5.00	103	103	4.97	4.25 to 5.75	118	70.0 to 130	0.00	20.0
BB14824	Thallium, Dissolved	mg/L	0.0000015	0.000147	0.100	0.0941	0.0913	0.0990	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BB14824	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.134	0.133	0.0989	0.0850 to 0.115	98.5	70.0 to 130	0.749	20.0
BB14824	Selenium, Dissolved	mg/L	0.0000708	0.00100	0.100	0.0999	0.101	0.102	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BB14824	Mercury, Dissolved by	mg/L	-4.870E-05	0.000500	0.004	0.00373	0.00376	0.00384	0.00340 to 0.00460	93.2	70.0 to 130	0.801	20.0
BB14824	Boron, Dissolved	mg/L	-0.00680	0.0650	1.00	2.73	2.75	1.02	0.850 to 1.15	104	70.0 to 130	0.730	20.0
BB14824	Chromium, Dissolved	mg/L	-0.000102	0.000440	0.100	0.0978	0.0976	0.0978	0.0850 to 0.115	97.6	70.0 to 130	0.205	20.0
BB14824	Molybdenum, Dissolved	mg/L	0.0000000	0.000147	0.100	0.299	0.298	0.0982	0.0850 to 0.115	101	70.0 to 130	0.335	20.0
BB14824	Cobalt, Dissolved	mg/L	-0.0000025	0.000147	0.100	0.101	0.0998	0.0998	0.0850 to 0.115	101	70.0 to 130	1.20	20.0
BB14824	Beryllium, Dissolved	mg/L	0.0000338	0.000880	0.100	0.104	0.104	0.108	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BB14824	Antimony, Dissolved	mg/L	0.0000900	0.00100	0.100	0.0977	0.0944	0.0941	0.0850 to 0.115	97.7	70.0 to 130	3.44	20.0
BB14824	Cadmium, Dissolved	mg/L	0.0000000	0.000147	0.100	0.0974	0.0971	0.0982	0.0850 to 0.115	97.4	70.0 to 130	0.308	20.0
BB14824	Lead, Dissolved	mg/L	-0.0000008	0.000147	0.100	0.101	0.0972	0.104	0.0850 to 0.115	101	70.0 to 130	3.83	20.0
BB14824	Barium, Dissolved	mg/L	0.0000114	0.000200	0.100	0.155	0.153	0.101	0.0850 to 0.115	98.2	70.0 to 130	1.30	20.0
BB14824	Magnesium, Dissolved	mg/L	0.00140	0.0462	5.00	8.74	8.81	4.98	4.25 to 5.75	99.2	70.0 to 130	0.798	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: 8/9/21 12:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-7 DIS

Laboratory ID Number: BB14824

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	20.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	20.0
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0			1.31	5.00

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: 8/10/21 10:05
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14825

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 12:09		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 13:34		10.15	197	mg/L	0.70035	4.06	
* Iron, Total	8/24/21 08:21	8/25/21 12:09		1.015	2.28	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 12:09		1.015	0.0567	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 13:34		10.15	87.8	mg/L	0.21315	4.06	
* Sodium, Total	8/24/21 08:21	8/25/21 13:34		10.15	66.8	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 11:58		1.015	2.23	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 15:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 15:02		1.015	0.000457	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 15:02		1.015	0.0358	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 15:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 15:02		1.015	0.000320	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 15:02		1.015	0.00110	mg/L	0.000068	0.000203	
* Lead, Total	8/16/21 13:02	8/17/21 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 15:02		1.015	0.00171	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 15:02		1.015	6.19	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 15:02		1.015	0.438	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 15:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:31		1.015	0.398	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	251	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	1240	mg/L		75.8	

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.

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-40H

Location Code: WMWGORAP
Collected: 8/10/21 10:05
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14825

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	251	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	0.08	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:42	8/12/21 11:42		2	28.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:58	8/12/21 14:58		1	0.113	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:50	8/17/21 09:50		40	661	mg/L	20.00	40	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/10/21 10:00	8/10/21 10:00			1695.40	uS/cm			FA
pH	8/10/21 10:00	8/10/21 10:00			6.56	SU			FA
Temperature	8/10/21 10:00	8/10/21 10:00			21.22	C			FA
Turbidity	8/10/21 10:00	8/10/21 10:00			2.52	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: 8/10/21 10:05
Customer ID:
Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-40H

Laboratory ID Number: BB14825

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14947	Sodium, Total	mg/L	0.00175	0.0660	5.00	338	357	5.06	4.25 to 5.75	-40.0	70.0 to 130	5.47	20.0
BB14947	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0743	0.0764	0.0998	0.0850 to 0.115	74.3	70.0 to 130	2.79	20.0
BB14947	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.112	0.110	0.101	0.0850 to 0.115	103	70.0 to 130	1.80	20.0
BB14947	Potassium, Total	mg/L	0.00241	0.367	10.0	11.2	11.0	10.2	8.50 to 11.5	100	70.0 to 130	1.80	20.0
BB14947	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0989	0.0972	0.0999	0.0850 to 0.115	98.9	70.0 to 130	1.73	20.0
BB14947	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.305	0.301	0.202	0.170 to 0.230	125	70.0 to 130	1.32	20.0
BB14947	Calcium, Total	mg/L	0.00980	0.152	5.00	6.90	6.83	5.22	4.25 to 5.75	102	70.0 to 130	1.02	20.0
BB14947	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.101	0.105	0.0993	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14947	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00408	0.00412	0.00403	0.00340 to 0.00460	102	70.0 to 130	0.976	20.0
BB14947	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.102	0.101	0.0969	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB14947	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.301	0.300	0.0980	0.0850 to 0.115	101	70.0 to 130	0.333	20.0
BB14947	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.49	5.48	5.19	4.25 to 5.75	97.6	70.0 to 130	0.182	20.0
BB14947	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0913	0.0910	0.0916	0.0850 to 0.115	91.3	70.0 to 130	0.329	20.0
BB14824	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.395	0.398	0.201	0.170 to 0.230	97.5	70.0 to 130	0.757	20.0
BB14947	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.16	1.15	1.03	0.850 to 1.15	103	70.0 to 130	0.866	20.0
BB14947	Iron, Total	mg/L	0.000527	0.0176	0.2	0.267	0.267	0.217	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BB14947	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.110	0.111	0.0975	0.0850 to 0.115	97.5	70.0 to 130	0.905	20.0
BB14947	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.105	0.104	0.0989	0.0850 to 0.115	98.9	70.0 to 130	0.957	20.0
BB14947	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0957	0.0935	0.0970	0.0850 to 0.115	95.7	70.0 to 130	2.33	20.0
BB14947	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0976	0.0981	0.0975	0.0850 to 0.115	97.6	70.0 to 130	0.511	20.0
BB14947	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.105	0.103	0.0998	0.0850 to 0.115	98.0	70.0 to 130	1.92	20.0
BB14947	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0982	0.0952	0.0998	0.0850 to 0.115	97.8	70.0 to 130	3.10	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: 8/10/21 10:05

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-40H

Laboratory ID Number: BB14825

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0			1.31	5.00
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0			0.678	10.0
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	20.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	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: 8/10/21 11:55
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14826

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 12:12		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 12:12		1.015	27.2	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 12:12		1.015	1.03	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 12:12		1.015	0.0932	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 12:12		1.015	11.4	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:37		10.15	61.9	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 12:01		1.015	0.992	mg/L	0.008120	0.0406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 15:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 15:06		1.015	0.000194	mg/L	0.000068	0.000203	J
* Barium, Total	8/16/21 13:02	8/17/21 15:06		1.015	0.765	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 15:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 15:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 15:06		1.015	0.000372	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 15:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 15:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 15:06		1.015	0.000157	mg/L	0.000068	0.000203	J
* Potassium, Total	8/16/21 13:02	8/17/21 15:06		1.015	2.59	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 15:06		1.015	0.0190	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 15:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 15:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:34		1.015	0.0177	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/13/21 10:48	8/13/21 11:46		1	296	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	271	mg/L		25	

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-26H

Location Code: WMWGORAP
Collected: 8/10/21 11:55
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14826

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	295	mg/L			
Carbonate Alkalinity, (calc.)	8/13/21 10:48	8/13/21 11:46		1	0.57	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:39	8/12/21 11:39		1	2.87	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:59	8/12/21 14:59		1	0.152	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:51	8/17/21 09:51		1	4.73	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/10/21 11:51	8/10/21 11:51			471.62	uS/cm			FA
pH	8/10/21 11:51	8/10/21 11:51			6.69	SU			FA
Temperature	8/10/21 11:51	8/10/21 11:51			21.15	C			FA
Turbidity	8/10/21 11:51	8/10/21 11:51			1.07	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: 8/10/21 11:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-26H

Laboratory ID Number: BB14826

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14947	Potassium, Total	mg/L	0.00241	0.367	10.0	11.2	11.0	10.2	8.50 to 11.5	100	70.0 to 130	1.80	20.0
BB14947	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0989	0.0972	0.0999	0.0850 to 0.115	98.9	70.0 to 130	1.73	20.0
BB14947	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.305	0.301	0.202	0.170 to 0.230	125	70.0 to 130	1.32	20.0
BB14947	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0743	0.0764	0.0998	0.0850 to 0.115	74.3	70.0 to 130	2.79	20.0
BB14947	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.112	0.110	0.101	0.0850 to 0.115	103	70.0 to 130	1.80	20.0
BB14947	Sodium, Total	mg/L	0.00175	0.0660	5.00	338	357	5.06	4.25 to 5.75	-40.0	70.0 to 130	5.47	20.0
BB14947	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0976	0.0981	0.0975	0.0850 to 0.115	97.6	70.0 to 130	0.511	20.0
BB14947	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.105	0.103	0.0998	0.0850 to 0.115	98.0	70.0 to 130	1.92	20.0
BB14947	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0982	0.0952	0.0998	0.0850 to 0.115	97.8	70.0 to 130	3.10	20.0
BB14947	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00408	0.00412	0.00403	0.00340 to 0.00460	102	70.0 to 130	0.976	20.0
BB14947	Calcium, Total	mg/L	0.00980	0.152	5.00	6.90	6.83	5.22	4.25 to 5.75	102	70.0 to 130	1.02	20.0
BB14947	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.101	0.105	0.0993	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14947	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.102	0.101	0.0969	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB14947	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.301	0.300	0.0980	0.0850 to 0.115	101	70.0 to 130	0.333	20.0
BB14947	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.49	5.48	5.19	4.25 to 5.75	97.6	70.0 to 130	0.182	20.0
BB14947	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0913	0.0910	0.0916	0.0850 to 0.115	91.3	70.0 to 130	0.329	20.0
BB14824	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.395	0.398	0.201	0.170 to 0.230	97.5	70.0 to 130	0.757	20.0
BB14947	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.16	1.15	1.03	0.850 to 1.15	103	70.0 to 130	0.866	20.0
BB14947	Iron, Total	mg/L	0.000527	0.0176	0.2	0.267	0.267	0.217	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BB14947	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.110	0.111	0.0975	0.0850 to 0.115	97.5	70.0 to 130	0.905	20.0
BB14947	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.105	0.104	0.0989	0.0850 to 0.115	98.9	70.0 to 130	0.957	20.0
BB14947	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0957	0.0935	0.0970	0.0850 to 0.115	95.7	70.0 to 130	2.33	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: 8/10/21 11:55

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-26H

Laboratory ID Number: BB14826

Sample	Analysis	Units	MB	MB			Sample		Standard		Rec			Prec Limit	
				Limit	Spike	MS	Duplicate	Standard	Limit	Rec	Limit	Prec			
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0		98.6	80.0 to 120		3.53	20.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75		99.9	80.0 to 120		7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0		92.6	80.0 to 120		0.793	20.0
BB14826	Alkalinity, Total as CaCO3	mg/L					294	52.9	45.0 to 55.0					0.678	10.0
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0					1.31	5.00

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: 8/10/21 12:45
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14827

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 12:15		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 12:15		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/24/21 08:21	8/25/21 12:15		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/24/21 08:21	8/25/21 12:15		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/24/21 08:21	8/25/21 12:15		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	8/24/21 08:21	8/25/21 12:15		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 15:09		1.015	0.000290	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 15:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 18:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 11:40	8/12/21 11:40		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 15:00	8/12/21 15:00		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:53	8/17/21 09:53		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 8/10/21 12:45

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond Field Blank-4

Laboratory ID Number: BB14827

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BB14947	Sodium, Total	mg/L	0.00175	0.0660	5.00	338	357	5.06	4.25 to 5.75	-40.0	70.0 to 130	5.47	20.0
BB14947	Calcium, Total	mg/L	0.00980	0.152	5.00	6.90	6.83	5.22	4.25 to 5.75	102	70.0 to 130	1.02	20.0
BB14947	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.101	0.105	0.0993	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14947	Potassium, Total	mg/L	0.00241	0.367	10.0	11.2	11.0	10.2	8.50 to 11.5	100	70.0 to 130	1.80	20.0
BB14947	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0989	0.0972	0.0999	0.0850 to 0.115	98.9	70.0 to 130	1.73	20.0
BB14947	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.305	0.301	0.202	0.170 to 0.230	125	70.0 to 130	1.32	20.0
BB14947	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00408	0.00412	0.00403	0.00340 to 0.00460	102	70.0 to 130	0.976	20.0
BB14947	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0743	0.0764	0.0998	0.0850 to 0.115	74.3	70.0 to 130	2.79	20.0
BB14947	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.112	0.110	0.101	0.0850 to 0.115	103	70.0 to 130	1.80	20.0
BB14947	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0976	0.0981	0.0975	0.0850 to 0.115	97.6	70.0 to 130	0.511	20.0
BB14947	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.105	0.103	0.0998	0.0850 to 0.115	98.0	70.0 to 130	1.92	20.0
BB14947	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0982	0.0952	0.0998	0.0850 to 0.115	97.8	70.0 to 130	3.10	20.0
BB14947	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.102	0.101	0.0969	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB14947	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.301	0.300	0.0980	0.0850 to 0.115	101	70.0 to 130	0.333	20.0
BB14947	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.49	5.48	5.19	4.25 to 5.75	97.6	70.0 to 130	0.182	20.0
BB14947	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0913	0.0910	0.0916	0.0850 to 0.115	91.3	70.0 to 130	0.329	20.0
BB14947	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.16	1.15	1.03	0.850 to 1.15	103	70.0 to 130	0.866	20.0
BB14947	Iron, Total	mg/L	0.000527	0.0176	0.2	0.267	0.267	0.217	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BB14947	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.110	0.111	0.0975	0.0850 to 0.115	97.5	70.0 to 130	0.905	20.0
BB14947	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0957	0.0935	0.0970	0.0850 to 0.115	95.7	70.0 to 130	2.33	20.0

Comments:

Batch QC Summary

Customer Account: WMWGORAPFB

Sample Date: 8/10/21 12:45

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond Field Blank-4

Laboratory ID Number: BB14827

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	20.0
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0			1.31	5.00
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	20.0

Comments:

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-8

Location Code: WMWGORAP
Collected: 8/10/21 13:28
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14828

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 12:19		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/24/21 08:21	8/25/21 12:19		1.015	4.47	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 12:19		1.015	0.900	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 12:19		1.015	0.00832	mg/L	0.007105	0.01999956	J
* Magnesium, Total	8/24/21 08:21	8/25/21 12:19		1.015	7.35	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 12:19		1.015	10.8	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Iron, Dissolved	8/24/21 10:30	8/24/21 12:05		1.015	0.0160	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 15:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 15:13		1.015	0.000390	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 15:13		1.015	0.00805	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 15:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 15:13		1.015	0.000579	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 15:13		1.015	0.000586	mg/L	0.000068	0.000203	
* Lead, Total	8/16/21 13:02	8/17/21 15:13		1.015	0.000149	mg/L	0.000068	0.000203	J
* Molybdenum, Total	8/16/21 13:02	8/17/21 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	8/16/21 13:02	8/17/21 15:13		1.015	0.767	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 15:13		1.015	0.0908	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 15:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8			Analyst: DLJ						
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:38		1.015	0.114	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 19:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B			Analyst: JAG						
Alkalinity, Total as CaCO3	8/18/21 10:07	8/18/21 10:35		1	50.1	mg/L		0.1	
Analytical Method: SM 2540C			Analyst: CNJ						
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	101	mg/L		25	

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: 8/10/21 13:28
Customer ID:
Submittal Date: 8/11/21 12:25

Laboratory ID Number: BB14828

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/18/21 10:07	8/18/21 10:35		1	50.1	mg/L			
Carbonate Alkalinity, (calc.)	8/18/21 10:07	8/18/21 10:35		1	0.01	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 11:41	8/12/21 11:41		1	4.04	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 15:01	8/12/21 15:01		1	0.0924	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:54	8/17/21 09:54		1	3.77	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/10/21 13:24	8/10/21 13:24			128.30	uS/cm			FA
pH	8/10/21 13:24	8/10/21 13:24			5.02	SU			FA
Temperature	8/10/21 13:24	8/10/21 13:24			24.13	C			FA
Turbidity	8/10/21 13:24	8/10/21 13:24			2.74	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: 8/10/21 13:28

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: BB14828

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			
BB14947	Sodium, Total	mg/L	0.00175	0.0660	5.00	338	357	5.06	4.25 to 5.75	-40.0	70.0 to 130	5.47	20.0
BB14947	Potassium, Total	mg/L	0.00241	0.367	10.0	11.2	11.0	10.2	8.50 to 11.5	100	70.0 to 130	1.80	20.0
BB14947	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0989	0.0972	0.0999	0.0850 to 0.115	98.9	70.0 to 130	1.73	20.0
BB14947	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.305	0.301	0.202	0.170 to 0.230	125	70.0 to 130	1.32	20.0
BB14947	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0976	0.0981	0.0975	0.0850 to 0.115	97.6	70.0 to 130	0.511	20.0
BB14947	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.105	0.103	0.0998	0.0850 to 0.115	98.0	70.0 to 130	1.92	20.0
BB14947	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0982	0.0952	0.0998	0.0850 to 0.115	97.8	70.0 to 130	3.10	20.0
BB14947	Calcium, Total	mg/L	0.00980	0.152	5.00	6.90	6.83	5.22	4.25 to 5.75	102	70.0 to 130	1.02	20.0
BB14947	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.101	0.105	0.0993	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14947	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.16	1.15	1.03	0.850 to 1.15	103	70.0 to 130	0.866	20.0
BB14947	Iron, Total	mg/L	0.000527	0.0176	0.2	0.267	0.267	0.217	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BB14947	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.110	0.111	0.0975	0.0850 to 0.115	97.5	70.0 to 130	0.905	20.0
BB14947	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.105	0.104	0.0989	0.0850 to 0.115	98.9	70.0 to 130	0.957	20.0
BB14947	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0957	0.0935	0.0970	0.0850 to 0.115	95.7	70.0 to 130	2.33	20.0
BB14947	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00408	0.00412	0.00403	0.00340 to 0.00460	102	70.0 to 130	0.976	20.0
BB14947	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0743	0.0764	0.0998	0.0850 to 0.115	74.3	70.0 to 130	2.79	20.0
BB14947	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.112	0.110	0.101	0.0850 to 0.115	103	70.0 to 130	1.80	20.0
BB14947	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.102	0.101	0.0969	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB14947	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.301	0.300	0.0980	0.0850 to 0.115	101	70.0 to 130	0.333	20.0
BB14947	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.49	5.48	5.19	4.25 to 5.75	97.6	70.0 to 130	0.182	20.0
BB14947	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0913	0.0910	0.0916	0.0850 to 0.115	91.3	70.0 to 130	0.329	20.0
BB14824	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.395	0.398	0.201	0.170 to 0.230	97.5	70.0 to 130	0.757	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: 8/10/21 13:28

Customer ID:

Delivery Date: 8/11/21 12:25

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: BB14828

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0			1.31	5.00
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	20.0
BB14947	Alkalinity, Total as CaCO3	mg/L					558	52.8	45.0 to 55.0			0.179	10.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	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: 8/11/21 12:59
Customer ID:
Submittal Date: 8/12/21 12:00

Laboratory ID Number: BB14946

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 12:22		1.015	0.0631	mg/L	0.030000	0.1015	J
* Calcium, Total	8/24/21 08:21	8/25/21 12:22		1.015	13.8	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 12:22		1.015	0.0694	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 12:22		1.015	0.0480	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 12:22		1.015	3.43	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:41		10.15	202	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 12:08		1.015	0.0313	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 15:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 15:17		1.015	0.00161	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 15:17		1.015	0.0535	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 15:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 15:17		1.015	0.00134	mg/L	0.000203	0.001015	
* Cobalt, Total	8/16/21 13:02	8/17/21 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 15:17		1.015	0.0394	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 15:17		1.015	25.6	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 15:17		1.015	0.0108	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 15:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:41		1.015	0.0106	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 19:05		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/18/21 10:07	8/18/21 10:35		1	186	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	712	mg/L		75.8	

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.

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-21V

Location Code: WMWGORAP

Collected: 8/11/21 12:59

Customer ID:

Submittal Date: 8/12/21 12:00

Laboratory ID Number: BB14946

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/18/21 10:07	8/18/21 10:35		1	179	mg/L			
Carbonate Alkalinity, (calc.)	8/18/21 10:07	8/18/21 10:35		1	7.01	mg/L			
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/12/21 12:39	8/12/21 12:39		40	162	mg/L	20.00	40	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:52	8/12/21 14:52		1	0.410	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:44	8/17/21 09:44		8	137	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/11/21 12:55	8/11/21 12:55			1626.13	uS/cm			FA
pH	8/11/21 12:55	8/11/21 12:55			8.28	SU			FA
Temperature	8/11/21 12:55	8/11/21 12:55			22.91	C			FA
Turbidity	8/11/21 12:55	8/11/21 12:55			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: 8/11/21 12:59

Customer ID:

Delivery Date: 8/12/21 12:00

Description: Gorgas Ash Pond - MW-21V

Laboratory ID Number: BB14946

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BB14947	Sodium, Total	mg/L	0.00175	0.0660	5.00	338	357	5.06	4.25 to 5.75	-40.0	70.0 to 130	5.47	20.0
BB14947	Potassium, Total	mg/L	0.00241	0.367	10.0	11.2	11.0	10.2	8.50 to 11.5	100	70.0 to 130	1.80	20.0
BB14947	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0989	0.0972	0.0999	0.0850 to 0.115	98.9	70.0 to 130	1.73	20.0
BB14947	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.305	0.301	0.202	0.170 to 0.230	125	70.0 to 130	1.32	20.0
BB14947	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0743	0.0764	0.0998	0.0850 to 0.115	74.3	70.0 to 130	2.79	20.0
BB14947	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.112	0.110	0.101	0.0850 to 0.115	103	70.0 to 130	1.80	20.0
BB14947	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00408	0.00412	0.00403	0.00340 to 0.00460	102	70.0 to 130	0.976	20.0
BB14947	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.16	1.15	1.03	0.850 to 1.15	103	70.0 to 130	0.866	20.0
BB14947	Iron, Total	mg/L	0.000527	0.0176	0.2	0.267	0.267	0.217	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BB14947	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.110	0.111	0.0975	0.0850 to 0.115	97.5	70.0 to 130	0.905	20.0
BB14947	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.105	0.104	0.0989	0.0850 to 0.115	98.9	70.0 to 130	0.957	20.0
BB14947	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0957	0.0935	0.0970	0.0850 to 0.115	95.7	70.0 to 130	2.33	20.0
BB14947	Calcium, Total	mg/L	0.00980	0.152	5.00	6.90	6.83	5.22	4.25 to 5.75	102	70.0 to 130	1.02	20.0
BB14947	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.101	0.105	0.0993	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14947	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0976	0.0981	0.0975	0.0850 to 0.115	97.6	70.0 to 130	0.511	20.0
BB14947	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.105	0.103	0.0998	0.0850 to 0.115	98.0	70.0 to 130	1.92	20.0
BB14947	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0982	0.0952	0.0998	0.0850 to 0.115	97.8	70.0 to 130	3.10	20.0
BB14947	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.102	0.101	0.0969	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB14947	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.301	0.300	0.0980	0.0850 to 0.115	101	70.0 to 130	0.333	20.0
BB14947	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.49	5.48	5.19	4.25 to 5.75	97.6	70.0 to 130	0.182	20.0
BB14947	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0913	0.0910	0.0916	0.0850 to 0.115	91.3	70.0 to 130	0.329	20.0
BB14824	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.395	0.398	0.201	0.170 to 0.230	97.5	70.0 to 130	0.757	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: 8/11/21 12:59

Customer ID:

Delivery Date: 8/12/21 12:00

Description: Gorgas Ash Pond - MW-21V

Laboratory ID Number: BB14946

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0			1.31	5.00
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	20.0
BB14947	Alkalinity, Total as CaCO ₃	mg/L					558	52.8	45.0 to 55.0			0.179	10.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	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: 8/12/21 09:06
Customer ID:
Submittal Date: 8/12/21 12:00

Laboratory ID Number: BB14947

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/24/21 08:21	8/25/21 12:25		1.015	0.130	mg/L	0.030000	0.1015	
* Calcium, Total	8/24/21 08:21	8/25/21 12:25		1.015	1.79	mg/L	0.070035	0.406	
* Iron, Total	8/24/21 08:21	8/25/21 12:25		1.015	0.0654	mg/L	0.008120	0.0406	
* Lithium, Total	8/24/21 08:21	8/25/21 12:25		1.015	0.0558	mg/L	0.007105	0.01999956	
* Magnesium, Total	8/24/21 08:21	8/25/21 12:25		1.015	0.608	mg/L	0.021315	0.406	
* Sodium, Total	8/24/21 08:21	8/25/21 13:44		10.15	340	mg/L	0.3045	4.06	RA
Analytical Method: EPA 200.7		Analyst: ABB							
* Iron, Dissolved	8/24/21 10:30	8/24/21 12:12		1.015	0.0194	mg/L	0.008120	0.0406	J
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/16/21 13:02	8/17/21 15:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	8/16/21 13:02	8/17/21 15:20		1.015	0.00888	mg/L	0.000068	0.000203	
* Barium, Total	8/16/21 13:02	8/17/21 15:20		1.015	0.200	mg/L	0.000102	0.000203	
* Beryllium, Total	8/16/21 13:02	8/17/21 15:20		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/16/21 13:02	8/17/21 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/16/21 13:02	8/17/21 15:20		1.015	0.000354	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/16/21 13:02	8/17/21 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/16/21 13:02	8/17/21 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	8/16/21 13:02	8/17/21 15:20		1.015	0.0125	mg/L	0.000068	0.000203	
* Potassium, Total	8/16/21 13:02	8/17/21 15:20		1.015	1.15	mg/L	0.169505	0.5075	
* Manganese, Total	8/16/21 13:02	8/17/21 15:20		1.015	0.00703	mg/L	0.000068	0.000203	
* Selenium, Total	8/16/21 13:02	8/17/21 15:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/16/21 13:02	8/17/21 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Manganese, Dissolved	8/16/21 14:00	8/17/21 11:45		1.015	0.00606	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/13/21 13:45	8/13/21 19:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		Analyst: JAG							
Alkalinity, Total as CaCO3	8/18/21 10:07	8/18/21 10:35		1	559	mg/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/13/21 10:43	8/16/21 13:27		1	967	mg/L		75.8	

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.

Certificate Of Analysis

Description: Gorgas Ash Pond - MW-25HA

Location Code: WMWGORAP
Collected: 8/12/21 09:06
Customer ID:
Submittal Date: 8/12/21 12:00

Laboratory ID Number: BB14947

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		Analyst: JAG							
Bicarbonate Alkalinity, (calc.)	8/18/21 10:07	8/18/21 10:35		1	513	mg/L			
Carbonate Alkalinity, (calc.)	8/18/21 10:07	8/18/21 10:35		1	46.0	mg/L			
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/12/21 12:40	8/12/21 12:40		5	36.3	mg/L	2.50	5	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/12/21 14:53	8/12/21 14:53		1	2.01	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/17/21 09:45	8/17/21 09:45		8	125	mg/L	4.00	8	
Analytical Method: Field Measurements		Analyst: DKG							
Conductivity	8/12/21 09:03	8/12/21 09:03			1467.42	uS/cm			FA
pH	8/12/21 09:03	8/12/21 09:03			8.78	SU			FA
Temperature	8/12/21 09:03	8/12/21 09:03			22.50	C			FA
Turbidity	8/12/21 09:03	8/12/21 09:03			2.11	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: 8/12/21 09:06

Customer ID:

Delivery Date: 8/12/21 12:00

Description: Gorgas Ash Pond - MW-25HA

Laboratory ID Number: BB14947

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BB14947	Selenium, Total	mg/L	0.000111	0.00100	0.100	0.0743	0.0764	0.0998	0.0850 to 0.115	74.3	70.0 to 130	2.79	20.0
BB14947	Arsenic, Total	mg/L	-0.0000245	0.000147	0.100	0.112	0.110	0.101	0.0850 to 0.115	103	70.0 to 130	1.80	20.0
BB14947	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00408	0.00412	0.00403	0.00340 to 0.00460	102	70.0 to 130	0.976	20.0
BB14947	Potassium, Total	mg/L	0.00241	0.367	10.0	11.2	11.0	10.2	8.50 to 11.5	100	70.0 to 130	1.80	20.0
BB14947	Cobalt, Total	mg/L	0.0000098	0.000147	0.100	0.0989	0.0972	0.0999	0.0850 to 0.115	98.9	70.0 to 130	1.73	20.0
BB14947	Lithium, Total	mg/L	0.000103	0.0154	0.200	0.305	0.301	0.202	0.170 to 0.230	125	70.0 to 130	1.32	20.0
BB14947	Calcium, Total	mg/L	0.00980	0.152	5.00	6.90	6.83	5.22	4.25 to 5.75	102	70.0 to 130	1.02	20.0
BB14947	Beryllium, Total	mg/L	0.0000341	0.000880	0.100	0.101	0.105	0.0993	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BB14947	Boron, Total	mg/L	-0.00433	0.0650	1.00	1.16	1.15	1.03	0.850 to 1.15	103	70.0 to 130	0.866	20.0
BB14947	Iron, Total	mg/L	0.000527	0.0176	0.2	0.267	0.267	0.217	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BB14947	Molybdenum, Total	mg/L	0.0000138	0.000147	0.100	0.110	0.111	0.0975	0.0850 to 0.115	97.5	70.0 to 130	0.905	20.0
BB14947	Manganese, Dissolved	mg/L	0.0000065	0.000147	0.100	0.105	0.104	0.0989	0.0850 to 0.115	98.9	70.0 to 130	0.957	20.0
BB14947	Cadmium, Total	mg/L	0.0000181	0.000147	0.100	0.0957	0.0935	0.0970	0.0850 to 0.115	95.7	70.0 to 130	2.33	20.0
BB14947	Sodium, Total	mg/L	0.00175	0.0660	5.00	338	357	5.06	4.25 to 5.75	-40.0	70.0 to 130	5.47	20.0
BB14947	Antimony, Total	mg/L	0.000125	0.00100	0.100	0.102	0.101	0.0969	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BB14947	Barium, Total	mg/L	0.0000249	0.000200	0.100	0.301	0.300	0.0980	0.0850 to 0.115	101	70.0 to 130	0.333	20.0
BB14947	Magnesium, Total	mg/L	-0.00127	0.0462	5.00	5.49	5.48	5.19	4.25 to 5.75	97.6	70.0 to 130	0.182	20.0
BB14947	Thallium, Total	mg/L	0.0000160	0.000147	0.100	0.0913	0.0910	0.0916	0.0850 to 0.115	91.3	70.0 to 130	0.329	20.0
BB14824	Iron, Dissolved	mg/L	0.000132	0.0176	0.2	0.395	0.398	0.201	0.170 to 0.230	97.5	70.0 to 130	0.757	20.0
BB14947	Lead, Total	mg/L	0.0000258	0.000147	0.100	0.0976	0.0981	0.0975	0.0850 to 0.115	97.6	70.0 to 130	0.511	20.0
BB14947	Manganese, Total	mg/L	0.0000053	0.000147	0.100	0.105	0.103	0.0998	0.0850 to 0.115	98.0	70.0 to 130	1.92	20.0
BB14947	Chromium, Total	mg/L	-0.0000429	0.000440	0.100	0.0982	0.0952	0.0998	0.0850 to 0.115	97.8	70.0 to 130	3.10	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: 8/12/21 09:06

Customer ID:

Delivery Date: 8/12/21 12:00

Description: Gorgas Ash Pond - MW-25HA

Laboratory ID Number: BB14947

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB14947	Solids, Dissolved	mg/L	-1.00	25.0			942	47.0	40.0 to 60.0			1.31	5.00
BB14947	Alkalinity, Total as CaCO3	mg/L					558	52.8	45.0 to 55.0			0.179	10.0
BB14828	Fluoride	mg/L	0.0157	0.100	2.50	2.59	0.0853	2.49	2.25 to 2.75	99.9	80.0 to 120	7.99	20.0
BB14828	Sulfate	mg/L	-0.154	1.00	20.0	22.3	3.80	18.2	18.0 to 22.0	92.6	80.0 to 120	0.793	20.0
BB14828	Chloride	mg/L	-0.0578	1.00	10.0	13.9	3.90	9.64	9.00 to 11.0	98.6	80.0 to 120	3.53	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_1333

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.
P	Precision is out of specification limit.
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

Outside Lab

Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	07/27/2021	10:55	6	Groundwater		BB13752
MW-6D	07/27/2021	12:08	6	Groundwater		BB13753
MW-23H	07/27/2021	13:35	6	Groundwater		BB13754
MW-23H Dup	07/27/2021	13:35	6	Sample Duplicate		BB13755
MW-41HS	07/28/2021	10:30	6	Groundwater		BB13756
FB-1	07/28/2021	11:30	4	Field Blank		BB13757

Relinquished By	Received By	Date/Time
		07/28/2021 14:02

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Sample Event	1333	
Cooler Temp	0.2 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8440-53677-10-3	

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Gorgas Ash Pond

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

Comments: Added time 14:02 to MW-31H Anions bottle per COC. LBM 8/3/2021

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-30HA	08/02/2021	12:03	6	Groundwater		BB14108
MW-31H	08/02/2021	14:02	6	Groundwater		BB14109

Relinquished By <i>M. Dyer</i>	Received By <i>Laura M. Goff</i>	Date/Time 08/03/2021 08:17

SmarTroll ID	7586-41442-5-1
Turbidity ID	3901-20010-2-2
Sample Event	1333

All metals and radiological bottles have pH < 2

Cooler Temp	0.2 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8440-53677-10-3

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Ash Pond

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

Comments: Correcting samples from MW-24 to MW-24H. LBM 8/5/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6V	08/02/2021	14:23	6	Groundwater		BB14375
MW-3	08/03/2021	11:15	6	Groundwater		BB14376
EB-1	08/03/2021	12:00	4	Equipment Blank		BB14377
MW-41HD	08/03/2021	13:10	6	Groundwater		BB14378
MW-24H	08/03/2021	14:37	6	Groundwater		BB14379
MW-24H Dup	08/03/2021	14:37	6	Sample Duplicate		BB14380
MW-38H	08/04/2021	11:15	6	Groundwater		BB14381
MW-42H	08/04/2021	13:45	6	Groundwater		BB14382

Relinquished By	Received By	Date/Time
		08/05/2021 08:11

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Sample Event	1333	
Cooler Temp	0.1 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8440-53677-10-3	

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	
Site Representative	John Pate	Requested By	Greg Dyer	
Collector	Dallas Gentry	Location	Gorgas Ash Pond	

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15V	08/03/2021	11:41	6	Groundwater		BB14369
MW-15	08/03/2021	13:29	6	Groundwater		BB14370
MW-16S	08/03/2021	16:04	6	Groundwater		BB14371
MW-21	08/04/2021	09:47	6	Groundwater		BB14372
MW-2	08/04/2021	12:05	6	Groundwater		BB14373
MW-29H	08/04/2021	13:57	6	Groundwater		BB14374

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Laura Milby</i>	08/05/2021 08:12

SmarTroll ID	7586-41442-5-1
Turbidity ID	3901-20010-2-2
Sample Event	1333

All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Cooler Temp	0.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8440-53677-10-3



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17V	08/02/2021	13:05	6	Groundwater		BB14383
MW-17	08/03/2021	10:25	6	Groundwater		BB14384
MW-17 Dup	08/03/2021	10:25	6	Sample Duplicate		BB14385
FB-2	08/03/2021	11:00	4	Field Blank		BB14386
PZ-22	08/03/2021	12:30	6	Groundwater		BB14387
MW-43H	08/04/2021	10:40	6	Groundwater		BB14388
MW-36H	08/04/2021	13:13	6	Groundwater		BB14389

Relinquished By <i>Anthony Goggins</i>	Received By <i>Sam Miller</i>	Date/Time 08/05/2021 08:13

SmarTroll ID	7586-41445-5-4
Turbidity ID	4677-23343-4-2
Sample Event	1333

All metals and radiological bottles have pH < 2

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8440-53677-10-3

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Anthony Goggins		Gorgas Ash Pond

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

Comments: Samples relinquished to secure location GSC Building 8 Biology shipping lab AWG @1630
Correcting MW-28H time to 15:22 per AWG. Correcting MW-16 to MW-16D. LBM 8/11/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16D	08/09/2021	11:55	6	Groundwater		BB14819
PZ-16	08/09/2021	13:15	6	Groundwater		BB14820
MW-28H	08/09/2021	15:22	6	Groundwater		BB14821
MW-32H	08/10/2021	09:14	6	Groundwater		BB14822

Relinquished By 	Received By Laura Midkiff <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2021.08.11 08:09:51 -05'00'</small>	Date/Time 08/11/2021 08:09

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	
Sample Event	1333	
Cooler Temp	0.0 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8440-53677-10-3	

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Gorgas Ash Pond

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

Comments: Dissolved set collected @ MW-7

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	08/09/2021	12:55	6	Groundwater		BB14823
MW-7 Dis	08/09/2021	12:55	5	Groundwater		BB14824
MW-40H	08/10/2021	10:05	6	Groundwater		BB14825
MW-26H	08/10/2021	11:55	6	Groundwater		BB14826
FB-4	08/10/2021	12:45	4	Field Blank		BB14827
MW-8	08/10/2021	13:28	6	Groundwater		BB14828

Relinquished By	Received By	Date/Time
<i>J. Pate</i>	<i>Laura M. Dyer</i>	08/11/2021 08:21

SmarTroll ID	7586-41443-5-2
Turbidity ID	4677-23342-4-1
Sample Event	1333

All metals and radiological bottles have pH < 2

Cooler Temp	0.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8440-53677-10-3

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	Results To	Dustin Brooks, Greg Dyer	
Site Representative	John Pate	Requested By	Greg Dyer	
Collector	Dallas Gentry	Location	Gorgas Ash Pond	

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

Comments: Dissolved set collected at MW-12V. Correcting dates per bottles. LBM 8/11/21
Correcting description of MW-19 dup to Sample Duplicate. LBM 8/30/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-12	08/09/2021	11:57	6	Groundwater		BB14812
FB-3	08/09/2021	13:45	4	Field Blank		BB14813
MW-12V	08/09/2021	15:13	6	Groundwater		BB14814
MW-12V dis	08/09/2021	15:13	5	Groundwater		BB14815
MW-19	08/10/2021	10:06	6	Groundwater		BB14816
MW-19 dup	08/10/2021	10:06	6	Sample Duplicate		BB14817
MW-9V	08/10/2021	13:04	6	Groundwater		BB14818

Relinquished By	Received By	Date/Time
<i>M. Dyer</i>	<i>Laura M. Jeff</i>	08/11/2021 08:00

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1333	
Cooler Temp	0.1 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	8440-53677-10-3	

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-21V	08/11/2021	12:59	6	Groundwater		BB14946
MW-25HA	08/12/2021	09:06	6	Groundwater		BB14947

Relinquished By	Received By	Date/Time
<i>Dallas Gentry</i>	<i>Bruce Cotton</i>	08/12/2021 11:29

SmarTroll ID	7586-41442-5-1
Turbidity ID	3901-20010-2-2
Sample Event	1333

All metals and radiological bottles have pH < 2

Cooler Temp	2.0 degrees C
Thermometer ID	7044-38281-2-1
pH Strip ID	8206-45802-10-6



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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	TJ Daugherty	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	Boron-11	1 L	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Boron-11 requested for MW-23H and MW-41HS. Rad MS/MSD collected @ MW-6S

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	07/27/2021	10:55	3	Groundwater		BB13758
MW-6D	07/27/2021	12:08	1	Groundwater		BB13759
MW-23H	07/27/2021	13:35	2	Groundwater		BB13760
MW-23H Dup	07/27/2021	13:35	2	Sample Duplicate		BB13761
MW-41HS	07/28/2021	10:30	2	Groundwater		BB13762
FB-1	07/28/2021	11:30	2	Field Blank		BB13763

Relinquished By	Received By	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	07/28/2021 14:02

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	Cooler Temp
Sample Event	1333	Thermometer ID
		pH Strip ID
		8440-53677-10-3

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Dallas Gentry		Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Boron-11	1 L	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Adding Boron-11 1L to Bottles, and correcting Bottle Counts for both samples to 2. LBM 8/3/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-30HA	08/02/2021	12:03	2	Groundwater		BB14110
MW-31H	08/02/2021	14:02	2	Groundwater		BB14111

Relinquished By	Received By	Date/Time
<i>M. Dyer</i>	<i>Austin Miller</i>	08/03/2021 08:17

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20010-2-2		
Sample Event	1333		
		Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	8440-53677-10-3

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Dallas Gentry		Gorgas Ash Pond

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	Boron-11	1 L	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Boron-11 requested only at MW-15V, MW-15, MW-16S, and MW-21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15V	08/03/2021	11:41	2	Groundwater		BB14390
MW-15	08/03/2021	13:29	2	Groundwater		BB14391
MW-16S	08/03/2021	16:04	2	Groundwater		BB14392
MW-21	08/04/2021	09:47	2	Groundwater		BB14393
MW-2	08/04/2021	12:05	1	Groundwater		BB14394
MW-29H	08/04/2021	13:57	1	Groundwater		BB14395

Relinquished By	Received By	Date/Time
<i>Mel Dyer</i>	<i>Laura Madoff</i>	08/05/2021 08:11

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Sample Event	1333	
Cooler Temp	N/A	
Thermometer ID	N/A	
pH Strip ID	8440-53677-10-3	

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Anthony Goggins	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 Boron-11	1 L	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Boron-11 requested on MW-17V, MW-17, PZ-22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17V	08/02/2021	13:05	2	Groundwater		BB14404
MW-17	08/03/2021	10:25	2	Groundwater		BB14405
MW-17 Dup	08/03/2021	10:25	2	Sample Duplicate		BB14406
FB-2	08/03/2021	11:00	2	Field Blank		BB14407
PZ-22	08/03/2021	12:30	2	Groundwater		BB14408
MW-43H	08/04/2021	10:40	1	Groundwater		BB14409
MW-36H	08/04/2021	13:13	1	Groundwater		BB14410

Relinquished By <i>Anthony Goggins</i>	Received By <i>Greg Dyer</i>	Date/Time 08/05/2021 08:12

SmarTroll ID	7586-41445-5-4
Turbidity ID	4677-23343-4-2
Sample Event	1333

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8440-53677-10-3

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	TJ Daugherty		Gorgas Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 Boron-11	1 L	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Boron-11 collected @ MW-6V, MW-3, MW-38H. Rad MS/MSD @ MW-41HD
 Correcting samples from MW-24 to MW-24H per TJD. LBM 8/5/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6V	08/02/2021	14:23	2	Groundwater		BB14396
MW-3	08/03/2021	11:15	2	Groundwater		BB14397
EB-1	08/03/2021	12:00	2	Equipment Blank		BB14398
MW-41HD	08/03/2021	13:10	3	Groundwater		BB14399
MW-24H	08/03/2021	14:37	1	Groundwater		BB14400
MW-24H Dup	08/03/2021	14:37	1	Sample Duplicate		BB14401
MW-38H	08/04/2021	11:15	2	Groundwater		BB14402
MW-42H	08/04/2021	13:45	1	Groundwater		BB14403

Relinquished By	Received By	Date/Time
<i>TJ Daugherty</i>	<i>Greg Dyer</i>	08/05/2021 08:11

SmarTroll ID	7586-41443-5-2
Turbidity ID	4677-23342-4-1
Sample Event	1333

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8440-53677-10-3

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	Anthony Goggins		Gorgas Ash Pond

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

Comments: Samples relinquished to secure location GSC Building 8 Biology shipping lab AWG @1630. MS and MSD collected at MW-16 Correcting MW-28H time to 15:22 per AWG. Correcting MW-16 to MW-16D. LBM 8/11/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16D	08/09/2021	11:55	3	Groundwater		BB14836
PZ-16	08/09/2021	13:15	1	Groundwater		BB14837
MW-28H	08/09/2021	15:22	1	Groundwater		BB14838
MW-32H	08/10/2021	09:14	1	Groundwater		BB14839

Relinquished By 	Received By Laura Midkiff <small>Digitally signed by Laura Midkiff, DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2021.08.11 08:10:02 -05'00'</small>	Date/Time 08/11/2021 08:10

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	
Sample Event	1333	
Cooler Temp	N/A	pH Strip ID
Thermometer ID	N/A	
	8440-53677-10-3	

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 Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	John Pate		Greg Dyer
	TJ Daugherty		Gorgas Ash Pond

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

Comments: Dissolved set collected @ MW-7

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	08/09/2021	12:55	1	Groundwater		BB14840
MW-7 Dis	08/09/2021	12:55	1	Groundwater		BB14841
MW-40H	08/10/2021	10:05	1	Groundwater		BB14842
MW-26H	08/10/2021	11:55	1	Groundwater		BB14843
FB-4	08/10/2021	12:45	1	Field Blank		BB14844
MW-8	08/10/2021	13:28	1	Groundwater		BB14845

Relinquished By	Received By	Date/Time
		08/11/2021 08:21

SmarTroll ID	7586-41443-5-2
Turbidity ID	4677-23342-4-1
Sample Event	1333

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8440-53677-10-3

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 Site Representative Collector	Routine	Results To	Dustin Brooks, Greg Dyer	
	John Pate	Requested By	Greg Dyer	
	Dallas Gentry	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 N/A N/A	4 N/A N/A	6 N/A N/A	8 N/A N/A
Comments	Dissolved set collected at MW-12V. Correcting dates per bottles. LBM 8/11/21 Correcting description of MW-19 dup to Sample Duplicate. LBM 8/30/21			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-12	08/09/2021	11:57	1	Groundwater		BB14829
FB-3	08/09/2021	13:45	1	Field Blank		BB14830
MW-12V	08/09/2021	15:13	1	Groundwater		BB14831
MW-12V dis	08/09/2021	15:13	1	Groundwater		BB14832
MW-19	08/10/2021	10:06	1	Groundwater		BB14833
MW-19 dup	08/10/2021	10:06	1	Sample Duplicate		BB14834
MW-9V	08/10/2021	13:04	1	Groundwater		BB14835

Relinquished By	Received By	Date/Time
<i>M. Dyer</i>	<i>Laura M. Jeff</i>	08/11/2021 08:00

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp	N/A
Sample Event	1333	Thermometer ID	N/A
		pH Strip ID	8440-53677-10-3

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
Site Representative	John Pate	Requested By	Greg Dyer
Collector	Dallas Gentry	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	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-21V	08/11/2021	12:59	1	Groundwater		BB14948
MW-25HA	08/12/2021	09:06	1	Groundwater		BB14949

Relinquished By	Received By	Date/Time
<i>M.D. Gentry</i>	<i>Bruce Cotton</i>	08/12/2021 11:29

SmarTroll ID	7586-41442-5-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20010-2-2		
Sample Event	1333	Cooler Temp	N/A
		Thermometer ID	N/A
		pH Strip ID	8206-45802-10-6

Bottles/Pre-Preserved Bottles are provided by the GTL



Isotope Analyses for:
Alabama Power

IT² FILE #
210349

2021-11-10

Approved by:

Orfan Shouakar-Stash, PhD
Director

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File Number: 210349
Project Number: WMWGORAP 1333

#	Sample ID	Sample Collection		Sample #	$\delta^{11}\text{B}$ ‰	Result	Repeat	Sample Size	B Concn. mg/L
		Date	Time						
1	BB13760 MW-23H	July 27, 2021	13:35	76628	X	3.2		1 x 1Litre Bottle	0.0474
2	BB13761 MW-23H DUP	July 27, 2021	13:35	76629	X	4.2		1 x 1Litre Bottle	0.0461
3	BB13762 MW-41HS	July 28, 2021	10:30	76630	X	3.6	5.0	1 x 1Litre Bottle	1.0900
4	BB13763 FB-1	July 28, 2021	11:30	76631	X	BDL		1 x 1Litre Bottle	N/D
5	BB14110 MW-30HA	August 2, 2021	12:03	76632	X	0.5	1.1	1 x 1Litre Bottle	0.06
6	BB14111 MW-31H	August 2, 2021	14:02	76633	X	BDL		1 x 1Litre Bottle	N/D
7	BB14390 MW-15V	August 3, 2021	11:41	76634	X	31.1	29.2	1 x 1Litre Bottle	0.0601
8	BB14391 MW-15	August 3, 2021	13:29	76635	X	BQL		1 x 1Litre Bottle	0.0491
9	BB14392 MW-165	August 3, 2021	16:04	76636	X	BQL		1 x 1Litre Bottle	0.0639
10	BB14393 MW-21	August 4, 2021	9:47	76637	X	BQL		1 x 1Litre Bottle	0.0993
11	BB14396 MW-6V	August 2, 2021	14:23	76638	X	13.3		1 x 1Litre Bottle	0.1010
12	BB14397 MW-3	August 3, 2021	11:15	76639	X	7.1	6.7	1 x 1Litre Bottle	0.386
13	BB14398 EB-1	August 3, 2021	12:00	76640	X	BDL		1 x 1Litre Bottle	N/D
14	BB14402 MW-38H	August 4, 2021	11:15	76641	X	24.1		1 x 1Litre Bottle	0.0479
15	BB14404 MW-17V	August 2, 2021	13:05	76642	X	2.6		1 x 1Litre Bottle	0.0368
16	BB14405 MW-17	August 3, 2021	10:25	76643	X	BQL		1 x 1Litre Bottle	0.0729
17	BB14406 MW-17 DUP	August 3, 2021	10:25	76644	X	BQL		1 x 1Litre Bottle	0.0724
18	BB14407 FB-2	August 3, 2021	11:00	76645	X	BDL		1 x 1Litre Bottle	N/D
19	BB14408 PZ-22	August 3, 2021	12:30	76646	X	2.7		1 x 1Litre Bottle	0.0478

BDL: Below Detection Limit

BQL: Below Quantifiable Limit, sample attempted several times

Low signal, uncertainty higher than normal

^{11}B Analyses

Instrument Used:

Thermal Ionization Mass Spectrometry (TIMS), TI-Box, spectromat, Germany

Standard Used:

120 ratios are taken for each sample and the average is used to calculate the delta value.

Delta values are calculated with respect to NIST SRM951a.

A secondary standard of sea water (SB1) is ran with each carousel.

Typical Standard deviation:

+/- 2 permil

Approved by:

Orfan S-Stash

Orfan Shouakar-Stash, PhD

Director

Isotope Tracer Technologies Inc.

695 Rupert St. Unit B, Waterloo, ON, N2V 1Z5

Tel: 519-886-5555 | Fax: 519-886-5575

Email: orfan@it2isotopes.com

Website: www.it2isotopes.com



COMPANY NAME		Alabama Power General Test Lab				ANALYSIS REQUEST		PLEASE INDICATE FILTERED, PRESERVED OR BOTH <----- (F, P, F/P)		
OFFICE ADDRESS		744 Co. Rd. 87, GSC#8 Calera, AL 35040								
PROJECT MANAGER: Laura Midkiff								SUBMISSION #:		
PROJECT # WMWGORAP_1333								ENTERED BY:		
PHONE 205-664-6197		FAX		REPORT FORMAT/DISTRIBUTION				DATE/TIME ENTERED:		
		PO #APC63628-0001		EMAIL ___X_ FAX _____ BOTH _____ SELECT: PDF ___ DIGITAL ___ BOTH _X_ EMAIL 1 _lbmidkif@southernco.com_____ EMAIL 2 _rgarner@southernco.com_____ EMAIL 3 _tbwill@southernco.com_____				BIN #:		
SAMPLING INFORMATION										
Sample Date/Time		TYPE		MATRIX						
Date (YYYY-MM-DD)	Time (24hr) (hh:mm)	COMP	GRAB	WATER	SOIL	OTHER	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	Baron Method (Isotopes T0 & T1)	
7/27/2021	13:35		X	X			BB13760 MW-23H	1	X	
7/27/2021	13:35		X	X			BB13761 MW-23H DUP	1	X	
7/28/2021	10:30		X	X			BB13762 MW-41HS	1	X	
7/28/2021	11:30		X	X			BB13763 FB-1	1	X	
SPECIAL INSTRUCTIONS/COMMENTS		THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES (CHECK Yes OR No)						SAMPLE CONDITION		
		Are any samples taken from a regulated DW System? Yes ___ No ___ If yes, an authorized drinking water COC MUST be used for this submission. Is the water sampled intended to be potable for human consumption? Yes ___ No ___						___ FROZEN ___ COLD ___ COOLING INITIATED ___ AMBIENT		
SAMPLED BY: TJ Daugherty		7/28/2021 14:02		RECEIVED BY: Laura Midkiff				7/28/2021 14:02		Observations
RELINQUISHED BY:		DATE & TIME		RECEIVED AT LAB BY:				DATE & TIME		

1. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.

2. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.



COMPANY NAME		Alabama Power General Test Lab								Specify date required		Service Requested			
OFFICE ADDRESS		744 Co. Rd. 87, GSC#8 Calera, AL 35040										(regular)			
PROJECT MANAGER: Laura Midkiff												(Rush)			
PROJECT # WMWGORAP_1333															
PHONE 205-664-6197		FAX		REPORT FORMAT/DISTRIBUTION											
		PO #APC63628-0001		EMAIL ___X___ FAX ___ ___ BOTH ___ ___ SELECT: PDF ___ DIGITAL ___ BOTH ___X___ EMAIL 1 _lbmidkif@southernco.com___ EMAIL 2 _rgarner@southernco.com___ EMAIL 3 _tbwill@southernco.com___											
SAMPLING INFORMATION															
Sample Date/Time		TYPE		MATRIX		NUMBER OF CONTAINERS		Baron Method (Isotopes T0 & T1)							
Date (YYYY-MM-DD)	Time (24hr) (hh:mm)	COMP	GRAB	WATER	SOIL	OTHER									
8/2/2021	12:03		X	X			1	X							
8/2/2021	14:02		X	X			1	X							
SPECIAL INSTRUCTIONS/COMMENTS															
SAMPLED BY: Dallas Gentry		8/3/2021 8:17		RECEIVED BY: Laura Midkiff		8/3/2021 8:17								Observations	
RELINQUISHED BY:		DATE & TIME		RECEIVED AT LAB BY:		DATE & TIME									

1. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.

2. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.



COMPANY NAME		Alabama Power General Test Lab				ANALYSIS REQUEST		PLEASE INDICATE FILTERED, PRESERVED OR BOTH <----- (F, P, F/P)	
OFFICE ADDRESS		744 Co. Rd. 87, GSC#8 Calera, AL 35040							
PROJECT MANAGER: Laura Midkiff								SUBMISSION #:	
PROJECT # WMWGORAP_1333								ENTERED BY:	
PHONE 205-664-6197		FAX		REPORT FORMAT/DISTRIBUTION				DATE/TIME ENTERED:	
		PO #APC63628-0001		EMAIL ___X___ FAX ___ ___ BOTH ___ SELECT: PDF ___ DIGITAL ___ BOTH _X_ EMAIL 1 _lbmidkif@southernco.com EMAIL 2 _rgarner@southernco.com EMAIL 3 _tbwill@southernco.com				BIN #:	
SAMPLING INFORMATION									
Sample Date/Time		TYPE		MATRIX					
Date (YYYY-MM-DD)	Time (24hr) (hh:mm)	COMP	GRAB	WATER	SOIL	OTHER	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	Baron Method (Isotopes TO & 11)
8/3/2021	11:41		X	X			BB14390 MW-15V	1	X
8/3/2021	13:29		X	X			BB14391 MW-15	1	X
8/3/2021	16:04		X	X			BB14392 MW-16S	1	X
8/4/2021	9:47		X	X			BB14393 MW-21	1	X
SPECIAL INSTRUCTIONS/COMMENTS									
SAMPLED BY: Dallas Gentry		8/5/2021 8:11		RECEIVED BY: Laura Midkiff		8/5/2021 8:11		Observations	
RELINQUISHED BY:		DATE & TIME		RECEIVED AT LAB BY:		DATE & TIME			

1. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs. 2. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.



COMPANY NAME		Alabama Power General Test Lab				<i>Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends.</i>	Specify date required	Service Requested							
OFFICE ADDRESS		744 Co. Rd. 87, GSC#8 Calera, AL 35040					4 weeks	<i>(regular)</i>							
PROJECT MANAGER: Laura Midkiff						NUMBER OF CONTAINERS	ANALYSIS REQUEST						PLEASE INDICATE FILTERED, PRESERVED OR BOTH <----- (F, P, F/P)		
PROJECT # WMWGORAP_1333							Boron Method (Isotopes T0 & T1)							SUBMISSION #:	
PHONE 205-664-6197	FAX	REPORT FORMAT/DISTRIBUTION												ENTERED BY:	
PO #APC63628-0001		EMAIL ___X___ FAX ___ ___ BOTH ___ ___ SELECT: PDF ___ DIGITAL ___ BOTH ___X___ EMAIL 1_lbmikif@southernco.com___ EMAIL 2_rgarner@southernco.com___ EMAIL 3_twill@southernco.com___												DATE/TIME ENTERED:	
SAMPLING INFORMATION														BIN #:	
Sample Date/Time		TYPE		MATRIX										COMMENTS	LAB ID
Date (YYYY-MM-DD)	Time (24hr) (hh:mm)	COMP	GRAB	WATER	SOIL			OTHER							
8/2/2021	14:23		X	X					1	X					
8/3/2021	11:15		X	X					1	X					
8/3/2021	12:00		X	X					1	X					
8/4/2021	11:15		X	X					1	X					
SPECIAL INSTRUCTIONS/COMMENTS						THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES (CHECK Yes OR No)						SAMPLE CONDITION			
						Are any samples taken from a regulated DW System? Yes ___ No ___ If yes, an authorized drinking water COC MUST be used for this submission. Is the water sampled intended to be potable for human consumption? Yes ___ No ___						___ FROZEN ___ COLD ___ COOLING INITIATED ___ AMBIENT			
SAMPLED BY: TJ Daugherty						8/5/2021 8:11		RECEIVED BY: Laura Midkiff				8/5/2021 8:11		Observations	
RELINQUISHED BY:						DATE & TIME		RECEIVED AT LAB BY:				DATE & TIME			

1. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs. 2. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.



Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends.		Specify date required	Service Requested					
		4 weeks	(regular)					
			(Rush)					
COMPANY NAME	Alabama Power General Test Lab		ANALYSIS REQUEST			PLEASE INDICATE FILTERED, PRESERVED OR BOTH <----- (F, P, F/P)		
OFFICE ADDRESS	744 Co. Rd. 87, GSC#8 Calera, AL 35040							
PROJECT MANAGER: Laura Midkiff			NUMBER OF CONTAINERS	Baron Method (Isotopes T0 & T1)	SUBMISSION #:			
PROJECT # WMWGORAP_1333					ENTERED BY:			
PHONE 205-664-6197	FAX	REPORT FORMAT/DISTRIBUTION			DATE/TIME ENTERED:			
PO #APC63628-0001		EMAIL ___X___ FAX ___ BOTH ___ SELECT: PDF ___ DIGITAL ___ BOTH _X_ EMAIL 1 _lbmidkif@southernco.com___ EMAIL 2 _rgarner@southernco.com___ EMAIL 3 _tbwill@southernco.com___			BIN #:			
SAMPLING INFORMATION					COMMENTS	LAB ID		
Sample Date/Time	TYPE	MATRIX						
Date (YYYY-MM-DD)	Time (24hr) (hh:mm)	COMP GRAB WATER SOIL OTHER			SAMPLE DESCRIPTION TO APPEAR ON REPORT			
8/2/2021	13:05	X X			1	X	BB14404 MW-17V	
8/3/2021	10:25	X X			1	X	BB14405 MW-17	
8/3/2021	10:25	X X			1	X	BB14406 MW-17 DUP	
8/3/2021	11:00	X X	1	X	BB14407 FB-2			
8/3/2021	12:30	X X	1	X	BB14408 PZ-22			
SPECIAL INSTRUCTIONS/COMMENTS			THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES (CHECK Yes OR No)			SAMPLE CONDITION		
SAMPLED BY: Anthony Goggins			Are any samples taken from a regulated DW System? Yes ___ No ___ If yes, an authorized drinking water COC MUST be used for this submission. Is the water sampled intended to be potable for human consumption? Yes ___ No ___			___ FROZEN ___ COLD ___ COOLING INITIATED ___ AMBIENT		
			8/5/2021 8:12	RECEIVED BY: Laura Midkiff	8/5/2021 8:12	Observations		
RELINQUISHED BY:			DATE & TIME	RECEIVED AT LAB BY:	DATE & TIME			

1. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.

2. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.

October 06, 2021

Laura Midkiff
Alabama Power
744 Highway 87
GSC #8
Calera, AL 35040

RE: Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Dear Laura Midkiff:

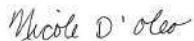
Enclosed are the analytical results for sample(s) received by the laboratory on August 17, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise 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,



Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Brooke Caton, Alabama Power
Renee Jernigan, Alabama Power



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

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 #: 9526

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

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SAMPLE SUMMARY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92555793001	BB13758 MW-6S	Water	07/27/21 10:55	08/17/21 09:50
92555793002	BB13758 MW-6S MS	Water	07/27/21 10:55	08/17/21 09:50
92555793003	BB13758 MW-6S MSD	Water	07/27/21 10:55	08/17/21 09:50
92555793004	BB13759 MW-6D	Water	07/27/21 12:08	08/17/21 09:50
92555793005	BB13760 MW-23H	Water	07/27/21 13:35	08/17/21 09:50
92555793006	BB13761 MW-23H DUP	Water	07/27/21 13:35	08/17/21 09:50
92555793007	BB13762 MW-41HS	Water	07/28/21 10:30	08/17/21 09:50
92555793008	BB13763 FB-1	Water	07/28/21 11:30	08/17/21 09:50
92555793009	BB14110 MW-30HA	Water	08/02/21 12:03	08/17/21 09:50
92555793010	BB14111 MW-31H	Water	08/02/21 14:02	08/17/21 09:50
92555793011	BB14390 MW-15V	Water	08/03/21 11:41	08/17/21 09:50
92555793012	BB14391 MW-15	Water	08/03/21 13:29	08/17/21 09:50
92555793013	BB14392 MW-16S	Water	08/03/21 16:04	08/17/21 09:50
92555793014	BB14393 MW-21	Water	08/04/21 09:47	08/17/21 09:50
92555793015	BB14394 MW-2	Water	08/04/21 12:05	08/17/21 09:50
92555793016	BB14395 MW-29H	Water	08/04/21 13:57	08/17/21 09:50
92555793017	BB14396 MW-6V	Water	08/02/21 14:23	08/17/21 09:50
92555793018	BB14397 MW-3	Water	08/03/21 11:15	08/17/21 09:50
92555793019	BB14398 EB-1	Water	08/03/21 12:00	08/17/21 09:50
92555793020	BB14399 MW-41HD	Water	08/03/21 13:10	08/17/21 09:50
92555793021	BB14399 MW-41HD MS	Water	08/03/21 13:10	08/17/21 09:50
92555793022	BB14399 MW-41HD MSD	Water	08/03/21 13:10	08/17/21 09:50
92555793023	BB14400 MW-24H	Water	08/03/21 14:37	08/17/21 09:50
92555793024	BB14401 MW-24H DUP	Water	08/03/21 14:37	08/17/21 09:50
92555793025	BB14402 MW-38H	Water	08/04/21 11:15	08/17/21 09:50
92555793026	BB14403 MW-42H	Water	08/04/21 13:45	08/17/21 09:50
92555793027	BB14404 MW-17V	Water	08/02/21 13:05	08/17/21 09:50
92555793028	BB14405 MW-17	Water	08/03/21 10:25	08/17/21 09:50
92555793029	BB14406 MW-17 DUP	Water	08/03/21 10:25	08/17/21 09:50
92555793030	BB14407 FB-2	Water	08/03/21 11:00	08/17/21 09:50
92555793031	BB14408 PZ-22	Water	08/03/21 12:30	08/17/21 09:50
92555793032	BB14409 MW-43H	Water	08/04/21 10:40	08/17/21 09:50
92555793033	BB14410 MW-36H	Water	08/04/21 13:13	08/17/21 09:50
92555793034	BB14829 MW-12	Water	08/09/21 11:57	08/17/21 09:50
92555793035	BB14830 FB-3	Water	08/09/21 13:45	08/17/21 09:50
92555793036	BB14831 MW-12V	Water	08/09/21 15:13	08/17/21 09:50
92555793037	BB14832 MW-12V DIS	Water	08/09/21 15:13	08/17/21 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92555793038	BB14833 MW-19	Water	08/10/21 10:06	08/17/21 09:50
92555793039	BB14834 MW-19 DUP	Water	08/10/21 10:06	08/17/21 09:50
92555793040	BB14835 MW-9V	Water	08/10/21 13:04	08/17/21 09:50
92555793041	BB14836 MW-16D	Water	08/09/21 11:55	08/17/21 09:50
92555793042	BB14836 MW-16D MS	Water	08/09/21 11:55	08/17/21 09:50
92555793043	BB14836 MW-16D MSD	Water	08/09/21 11:55	08/17/21 09:50
92555793044	BB14837 PZ-16	Water	08/09/21 13:15	08/17/21 09:50
92555793045	BB14838 MW-28H	Water	08/09/21 15:22	08/17/21 09:50
92555793046	BB14839 MW-32H	Water	08/10/21 09:14	08/17/21 09:50
92555793047	BB14840 MW-7	Water	08/09/21 12:55	08/17/21 09:50
92555793050	BB14841 MW-7 DIS	Water	08/09/21 12:55	08/17/21 09:50
92555793051	BB14842 MW-40H	Water	08/10/21 10:05	08/17/21 09:50
92555793052	BB14843 MW-26H	Water	08/10/21 11:55	08/17/21 09:50
92555793053	BB14844 FB-4	Water	08/10/21 12:45	08/17/21 09:50
92555793054	BB14845 MW-8	Water	08/10/21 13:28	08/17/21 09:50
92555793055	BB14948 MW-21V	Water	08/11/21 12:59	08/17/21 09:50
92555793056	BB14949 MW-25HA	Water	08/12/21 09:06	08/17/21 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92555793001	BB13758 MW-6S	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793002	BB13758 MW-6S MS	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793003	BB13758 MW-6S MSD	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793004	BB13759 MW-6D	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793005	BB13760 MW-23H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793006	BB13761 MW-23H DUP	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793007	BB13762 MW-41HS	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793008	BB13763 FB-1	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793009	BB14110 MW-30HA	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793010	BB14111 MW-31H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793011	BB14390 MW-15V	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793012	BB14391 MW-15	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793013	BB14392 MW-16S	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92555793014	BB14393 MW-21	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793015	BB14394 MW-2	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793016	BB14395 MW-29H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793017	BB14396 MW-6V	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793018	BB14397 MW-3	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793019	BB14398 EB-1	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793020	BB14399 MW-41HD	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793021	BB14399 MW-41HD MS	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92555793022	BB14399 MW-41HD MSD	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92555793023	BB14400 MW-24H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793024	BB14401 MW-24H DUP	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793025	BB14402 MW-38H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793026	BB14403 MW-42H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92555793027	BB14404 MW-17V	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793028	BB14405 MW-17	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793029	BB14406 MW-17 DUP	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793030	BB14407 FB-2	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793031	BB14408 PZ-22	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793032	BB14409 MW-43H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793033	BB14410 MW-36H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793034	BB14829 MW-12	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793035	BB14830 FB-3	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793036	BB14831 MW-12V	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793037	BB14832 MW-12V DIS	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793038	BB14833 MW-19	EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793039	BB14834 MW-19 DUP	EPA 9315	CLA	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92555793040	BB14835 MW-9V	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92555793041	BB14836 MW-16D	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793042	BB14836 MW-16D MS	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793043	BB14836 MW-16D MSD	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793044	BB14837 PZ-16	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
92555793045	BB14838 MW-28H	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793046	BB14839 MW-32H	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793047	BB14840 MW-7	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
92555793050	BB14841 MW-7 DIS	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793051	BB14842 MW-40H	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92555793052	BB14843 MW-26H	EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
92555793053	BB14844 FB-4	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793054	BB14845 MW-8	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92555793055	BB14948 MW-21V	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
92555793056	BB14949 MW-25HA	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	CLA	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: October 06, 2021

General Information:

54 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:

Analyte Comments:

QC Batch: 461715

1g: The Matrix Spike duplicate recovery is less than the lower limit for MS recovery. Results have been reported based on acceptable RPD between the MS and MSD.

- BB13758 MW-6S MSD (Lab ID: 92555793003)
- Radium-226

QC Batch: 461717

2g: The Ra-226 Matrix Spike Duplicate recovery was low and outside of the default acceptance criteria for MS recovery. Sample results have been reported based on acceptable RPD for the RQS pair. The low MSD recovery may be due to sample matrix interference.

- BB14836 MW-16D MSD (Lab ID: 92555793043)
- Radium-226

3g: The Ra-226 Matrix Spike recovery was low and outside of the default acceptance criteria for MS recovery. Sample results have been reported based on acceptable RPD for the RQS pair. The low MS recovery may be due to sample matrix interference.

- BB14836 MW-16D MS (Lab ID: 92555793042)
- Radium-226

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PROJECT NARRATIVE

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: October 06, 2021

General Information:

54 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: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Alabama Power

Date: October 06, 2021

General Information:

48 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: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13758 MW-6S **Lab ID: 92555793001** Collected: 07/27/21 10:55 Received: 08/17/21 09:50 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	-0.204U ± 0.227 (0.687) C:71% T:NA	pCi/L	09/15/21 07:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.870U ± 0.598 (1.18) C:77% T:72%	pCi/L	09/13/21 11:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.870U ± 0.825 (1.87)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13758 MW-6S MS **Lab ID: 92555793002** Collected: 07/27/21 10:55 Received: 08/17/21 09:50 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	75.55 %REC ± NA (NA) C:NA T:NA	pCi/L	09/15/21 07:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	90.79 %REC ± NA (NA) C:NA T:NA	pCi/L	09/13/21 11:20	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13758 MW-6S MSD **Lab ID: 92555793003** Collected: 07/27/21 10:55 Received: 08/17/21 09:50 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	70.15 %REC 7.42 RPD ± NA (NA) C:NA T:NA	pCi/L	09/15/21 07:35	13982-63-3	1g
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	86.33 %REC 5.04 RPD ± NA (NA) C:NA T:NA	pCi/L	09/13/21 11:20	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13759 MW-6D **Lab ID: 92555793004** Collected: 07/27/21 12:08 Received: 08/17/21 09:50 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	0.449U ± 0.452 (0.861) C:75% T:NA	pCi/L	09/15/21 09:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.470U ± 0.484 (1.01) C:78% T:82%	pCi/L	09/13/21 11:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.919U ± 0.936 (1.87)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13760 MW-23H **Lab ID: 92555793005** Collected: 07/27/21 13:35 Received: 08/17/21 09:50 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	0.124U ± 0.480 (1.11) C:48% T:NA	pCi/L	09/16/21 07:45	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.259U ± 0.353 (0.869) C:74% T:84%	pCi/L	09/13/21 11:13	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.124U ± 0.833 (1.98)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13761 MW-23H DUP **Lab ID: 92555793006** Collected: 07/27/21 13:35 Received: 08/17/21 09:50 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	0.601U ± 0.506 (0.904) C:71% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.204U ± 0.357 (0.780) C:79% T:86%	pCi/L	09/13/21 11:13	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.805U ± 0.863 (1.68)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13762 MW-41HS **Lab ID: 92555793007** Collected: 07/28/21 10:30 Received: 08/17/21 09:50 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	0.232U ± 0.369 (0.808) C:69% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.527U ± 0.451 (0.916) C:78% T:77%	pCi/L	09/13/21 11:13	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.759U ± 0.820 (1.72)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB13763 FB-1 **Lab ID: 92555793008** Collected: 07/28/21 11:30 Received: 08/17/21 09:50 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	0.0436U ± 0.292 (0.793) C:64% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.529U ± 0.423 (0.852) C:78% T:87%	pCi/L	09/13/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.573U ± 0.715 (1.65)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14110 MW-30HA **Lab ID: 92555793009** Collected: 08/02/21 12:03 Received: 08/17/21 09:50 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	0.717U ± 0.494 (0.835) C:89% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.08 ± 0.500 (0.854) C:76% T:79%	pCi/L	09/13/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.80 ± 0.994 (1.69)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14111 MW-31H **Lab ID: 92555793010** Collected: 08/02/21 14:02 Received: 08/17/21 09:50 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	0.841 ± 0.508 (0.766) C:89% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.640U ± 0.448 (0.879) C:76% T:86%	pCi/L	09/13/21 11:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.48U ± 0.956 (1.65)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14390 MW-15V **Lab ID: 92555793011** Collected: 08/03/21 11:41 Received: 08/17/21 09:50 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	-0.0128U ± 0.267 (0.776) C:76% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.13U ± 0.608 (1.13) C:79% T:78%	pCi/L	09/13/21 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.13U ± 0.875 (1.91)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14391 MW-15 **Lab ID: 92555793012** Collected: 08/03/21 13:29 Received: 08/17/21 09:50 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	0.324U ± 0.409 (0.836) C:75% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.326U ± 0.473 (1.02) C:80% T:77%	pCi/L	09/13/21 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.650U ± 0.882 (1.86)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14392 MW-16S **Lab ID: 92555793013** Collected: 08/03/21 16:04 Received: 08/17/21 09:50 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	0.157U ± 0.311 (0.721) C:93% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.205U ± 0.516 (1.14) C:80% T:80%	pCi/L	09/13/21 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.362U ± 0.827 (1.86)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14393 MW-21 **Lab ID: 92555793014** Collected: 08/04/21 09:47 Received: 08/17/21 09:50 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	0.260U ± 0.392 (0.851) C:76% T:NA	pCi/L	09/15/21 09:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0769U ± 0.439 (0.994) C:83% T:83%	pCi/L	09/13/21 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.337U ± 0.831 (1.85)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14394 MW-2 **Lab ID: 92555793015** Collected: 08/04/21 12:05 Received: 08/17/21 09:50 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	0.425U ± 0.401 (0.727) C:79% T:NA	pCi/L	09/15/21 09:39	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0768U ± 0.361 (0.818) C:81% T:84%	pCi/L	09/13/21 14:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.502U ± 0.762 (1.55)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14395 MW-29H **Lab ID: 92555793016** Collected: 08/04/21 13:57 Received: 08/17/21 09:50 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	0.218U ± 0.290 (0.609) C:72% T:NA	pCi/L	09/16/21 07:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.800U ± 0.456 (0.832) C:77% T:78%	pCi/L	09/13/21 14:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.02U ± 0.746 (1.44)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14396 MW-6V **Lab ID: 92555793017** Collected: 08/02/21 14:23 Received: 08/17/21 09:50 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	0.562U ± 0.454 (0.778) C:78% T:NA	pCi/L	09/15/21 09:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.967 ± 0.420 (0.678) C:81% T:84%	pCi/L	09/13/21 14:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.53 ± 0.874 (1.46)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14397 MW-3 **Lab ID: 92555793018** Collected: 08/03/21 11:15 Received: 08/17/21 09:50 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	0.298U ± 0.267 (0.511) C:80% T:NA	pCi/L	09/16/21 07:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.680U ± 0.461 (0.896) C:80% T:82%	pCi/L	09/13/21 14:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.978U ± 0.728 (1.41)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14398 EB-1 **Lab ID: 92555793019** Collected: 08/03/21 12:00 Received: 08/17/21 09:50 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	0.0106U ± 0.266 (0.652) C:68% T:NA	pCi/L	09/16/21 07:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.703U ± 0.417 (0.776) C:79% T:88%	pCi/L	09/13/21 14:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.714U ± 0.683 (1.43)	pCi/L	09/17/21 16:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14399 MW-41HD **Lab ID: 92555793020** Collected: 08/03/21 13:10 Received: 08/17/21 09:50 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	-0.120U ± 0.317 (0.886) C:83% T:NA	pCi/L	09/13/21 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.453U ± 0.326 (0.628) C:79% T:87%	pCi/L	09/14/21 10:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.453U ± 0.643 (1.51)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14399 MW-41HD MS **Lab ID: 92555793021** Collected: 08/03/21 13:10 Received: 08/17/21 09:50 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	119.86 %REC ± NA (NA) C:NA T:NA	pCi/L	09/13/21 07:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	81.09 %REC ± NA (NA) C:NA T:NA	pCi/L	09/14/21 10:56	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14399 MW-41HD MSD **Lab ID: 92555793022** Collected: 08/03/21 13:10 Received: 08/17/21 09:50 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	121.39 %REC 1.28 RPD ± NA (NA) C:NA T:NA	pCi/L	09/13/21 07:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	97.44 %REC 18.32 RPD ± NA (NA) C:NA T:NA	pCi/L	09/14/21 10:56	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14400 MW-24H **Lab ID: 92555793023** Collected: 08/03/21 14:37 Received: 08/17/21 09:50 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	0.436U ± 0.391 (0.750) C:57% T:NA	pCi/L	09/17/21 07:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.862 ± 0.391 (0.652) C:78% T:93%	pCi/L	09/14/21 10:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.30U ± 0.782 (1.40)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14401 MW-24H DUP **Lab ID: 92555793024** Collected: 08/03/21 14:37 Received: 08/17/21 09:50 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	0.546U ± 0.355 (0.595) C:74% T:NA	pCi/L	09/17/21 07:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.722 ± 0.369 (0.643) C:78% T:91%	pCi/L	09/14/21 10:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.27 ± 0.724 (1.24)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14402 MW-38H **Lab ID: 92555793025** Collected: 08/04/21 11:15 Received: 08/17/21 09:50 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	0.296U ± 0.265 (0.511) C:92% T:NA	pCi/L	09/17/21 07:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.548U ± 0.387 (0.749) C:79% T:83%	pCi/L	09/13/21 14:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.844U ± 0.652 (1.26)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14403 MW-42H **Lab ID: 92555793026** Collected: 08/04/21 13:45 Received: 08/17/21 09:50 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	0.0625U ± 0.187 (0.445) C:85% T:NA	pCi/L	09/17/21 07:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.123U ± 0.324 (0.723) C:82% T:87%	pCi/L	09/14/21 10:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.186U ± 0.511 (1.17)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14404 MW-17V **Lab ID: 92555793027** Collected: 08/02/21 13:05 Received: 08/17/21 09:50 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	0.136U ± 0.413 (0.962) C:53% T:NA	pCi/L	09/17/21 07:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.602U ± 0.351 (0.648) C:81% T:92%	pCi/L	09/14/21 10:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.738U ± 0.764 (1.61)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14405 MW-17 **Lab ID: 92555793028** Collected: 08/03/21 10:25 Received: 08/17/21 09:50 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	0.273U ± 0.352 (0.739) C:56% T:NA	pCi/L	09/17/21 07:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.394U ± 0.365 (0.748) C:79% T:85%	pCi/L	09/14/21 10:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.667U ± 0.717 (1.49)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14406 MW-17 DUP **Lab ID: 92555793029** Collected: 08/03/21 10:25 Received: 08/17/21 09:50 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	0.193U ± 0.236 (0.489) C:90% T:NA	pCi/L	09/17/21 07:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.11 ± 0.430 (0.637) C:77% T:85%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.30 ± 0.666 (1.13)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14407 FB-2 **Lab ID: 92555793030** Collected: 08/03/21 11:00 Received: 08/17/21 09:50 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	0.510U ± 0.329 (0.541) C:75% T:NA	pCi/L	09/17/21 07:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.65 ± 0.517 (0.633) C:76% T:86%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.16 ± 0.846 (1.17)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14408 PZ-22 **Lab ID: 92555793031** Collected: 08/03/21 12:30 Received: 08/17/21 09:50 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	0.115U ± 0.240 (0.545) C:81% T:NA	pCi/L	09/17/21 07:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0798U ± 0.321 (0.730) C:72% T:85%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.195U ± 0.561 (1.28)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14409 MW-43H **Lab ID: 92555793032** Collected: 08/04/21 10:40 Received: 08/17/21 09:50 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	0.316U ± 0.263 (0.497) C:95% T:NA	pCi/L	09/17/21 07:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.633U ± 0.358 (0.645) C:75% T:90%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.949U ± 0.621 (1.14)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14410 MW-36H **Lab ID: 92555793033** Collected: 08/04/21 13:13 Received: 08/17/21 09:50 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	0.169U ± 0.227 (0.477) C:85% T:NA	pCi/L	09/17/21 07:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.963 ± 0.412 (0.635) C:76% T:80%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.13 ± 0.639 (1.11)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14829 MW-12 **Lab ID: 92555793034** Collected: 08/09/21 11:57 Received: 08/17/21 09:50 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	0.160U ± 0.321 (0.722) C:71% T:NA	pCi/L	09/17/21 07:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.747 ± 0.371 (0.632) C:74% T:91%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.907U ± 0.692 (1.35)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14830 FB-3 **Lab ID: 92555793035** Collected: 08/09/21 13:45 Received: 08/17/21 09:50 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	0.375U ± 0.304 (0.561) C:74% T:NA	pCi/L	09/17/21 07:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.859 ± 0.403 (0.679) C:73% T:92%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.23U ± 0.707 (1.24)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14831 MW-12V **Lab ID: 92555793036** Collected: 08/09/21 15:13 Received: 08/17/21 09:50 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	0.552 ± 0.294 (0.448) C:96% T:NA	pCi/L	09/17/21 07:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.437U ± 0.349 (0.693) C:75% T:93%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.989U ± 0.643 (1.14)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14832 MW-12V DIS **Lab ID: 92555793037** Collected: 08/09/21 15:13 Received: 08/17/21 09:50 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	0.226U ± 0.338 (0.731) C:59% T:NA	pCi/L	09/17/21 07:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.961 ± 0.410 (0.667) C:77% T:93%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.19U ± 0.748 (1.40)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14833 MW-19 **Lab ID: 92555793038** Collected: 08/10/21 10:06 Received: 08/17/21 09:50 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	0.598U ± 0.421 (0.766) C:65% T:NA	pCi/L	09/17/21 07:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.820 ± 0.392 (0.663) C:72% T:90%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.42U ± 0.813 (1.43)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14834 MW-19 DUP **Lab ID: 92555793039** Collected: 08/10/21 10:06 Received: 08/17/21 09:50 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	0.347U ± 0.329 (0.651) C:68% T:NA	pCi/L	09/17/21 07:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.392U ± 0.323 (0.640) C:71% T:93%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.739U ± 0.652 (1.29)	pCi/L	09/17/21 16:22	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14835 MW-9V **Lab ID: 92555793040** Collected: 08/10/21 13:04 Received: 08/17/21 09:50 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	0.529U ± 0.493 (0.961) C:44% T:NA	pCi/L	09/17/21 08:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.366U ± 0.336 (0.681) C:74% T:92%	pCi/L	09/14/21 10:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.895U ± 0.829 (1.64)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14836 MW-16D **Lab ID: 92555793041** Collected: 08/09/21 11:55 Received: 08/17/21 09:50 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	0.170U ± 0.227 (0.478) C:81% T:NA	pCi/L	09/17/21 08:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.897 ± 0.450 (0.782) C:74% T:85%	pCi/L	09/14/21 14:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.07U ± 0.677 (1.26)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14836 MW-16D MS **Lab ID: 92555793042** Collected: 08/09/21 11:55 Received: 08/17/21 09:50 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	60.56 %REC ± NA (NA) C:NA T:NA	pCi/L	09/17/21 08:14	13982-63-3	3g
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	71.73 %REC ± NA (NA) C:NA T:NA	pCi/L	09/14/21 14:01	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14836 MW-16D MSD **Lab ID: 92555793043** Collected: 08/09/21 11:55 Received: 08/17/21 09:50 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	67.23 %REC 10.43 RPD ± NA (NA) C:NA T:NA	pCi/L	09/17/21 08:14	13982-63-3	2g
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	73.13 %REC 1.93 RPD ± NA (NA) C:NA T:NA	pCi/L	09/14/21 14:01	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14837 PZ-16 **Lab ID: 92555793044** Collected: 08/09/21 13:15 Received: 08/17/21 09:50 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	0.666 ± 0.337 (0.479) C:83% T:NA	pCi/L	09/17/21 08:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.799 ± 0.416 (0.716) C:73% T:82%	pCi/L	09/14/21 14:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.47 ± 0.753 (1.20)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14838 MW-28H **Lab ID: 92555793045** Collected: 08/09/21 15:22 Received: 08/17/21 09:50 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	0.376U ± 0.253 (0.408) C:86% T:NA	pCi/L	09/17/21 08:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.330U ± 0.372 (0.777) C:74% T:81%	pCi/L	09/14/21 14:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.706U ± 0.625 (1.19)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14839 MW-32H **Lab ID: 92555793046** Collected: 08/10/21 09:14 Received: 08/17/21 09:50 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	0.125U ± 0.239 (0.538) C:65% T:NA	pCi/L	09/17/21 08:15	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.320U ± 0.348 (0.722) C:76% T:82%	pCi/L	09/14/21 14:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.445U ± 0.587 (1.26)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14840 MW-7 **Lab ID: 92555793047** Collected: 08/09/21 12:55 Received: 08/17/21 09:50 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	0.396U ± 0.282 (0.485) C:82% T:NA	pCi/L	09/17/21 08:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.936 ± 0.424 (0.696) C:77% T:84%	pCi/L	09/14/21 14:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.33 ± 0.706 (1.18)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14841 MW-7 DIS **Lab ID: 92555793050** Collected: 08/09/21 12:55 Received: 08/17/21 09:50 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	0.719 ± 0.363 (0.522) C:77% T:NA	pCi/L	09/17/21 08:17	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.515U ± 0.410 (0.812) C:74% T:82%	pCi/L	09/14/21 14:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.23U ± 0.773 (1.33)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14842 MW-40H **Lab ID: 92555793051** Collected: 08/10/21 10:05 Received: 08/17/21 09:50 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	0.627U ± 0.500 (0.922) C:39% T:NA	pCi/L	09/17/21 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.283U ± 0.332 (0.697) C:73% T:88%	pCi/L	09/14/21 14:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.910U ± 0.832 (1.62)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14843 MW-26H **Lab ID: 92555793052** Collected: 08/10/21 11:55 Received: 08/17/21 09:50 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	0.264U ± 0.226 (0.407) C:82% T:NA	pCi/L	09/17/21 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.789 ± 0.437 (0.783) C:73% T:85%	pCi/L	09/14/21 14:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.05U ± 0.663 (1.19)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14844 FB-4 **Lab ID: 92555793053** Collected: 08/10/21 12:45 Received: 08/17/21 09:50 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	0.189U ± 0.214 (0.424) C:80% T:NA	pCi/L	09/17/21 08:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.185U ± 0.343 (0.751) C:77% T:81%	pCi/L	09/14/21 14:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.374U ± 0.557 (1.18)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14845 MW-8 **Lab ID: 92555793054** Collected: 08/10/21 13:28 Received: 08/17/21 09:50 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	0.359U ± 0.286 (0.513) C:73% T:NA	pCi/L	09/17/21 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.411U ± 0.342 (0.673) C:70% T:87%	pCi/L	09/14/21 14:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.770U ± 0.628 (1.19)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14948 MW-21V **Lab ID: 92555793055** Collected: 08/11/21 12:59 Received: 08/17/21 09:50 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	0.148U ± 0.210 (0.443) C:76% T:NA	pCi/L	09/17/21 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.634U ± 0.394 (0.729) C:74% T:84%	pCi/L	09/14/21 14:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.782U ± 0.604 (1.17)	pCi/L	09/17/21 16:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Sample: BB14949 MW-25HA **Lab ID: 92555793056** Collected: 08/12/21 09:06 Received: 08/17/21 09:50 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	0.0302U ± 0.242 (0.589) C:86% T:NA	pCi/L	09/17/21 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0991U ± 0.345 (0.780) C:72% T:89%	pCi/L	09/14/21 14:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.129U ± 0.587 (1.37)	pCi/L	09/17/21 16:21	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

QC Batch:	461966	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92555793041, 92555793042, 92555793043, 92555793044, 92555793045, 92555793046, 92555793047, 92555793050, 92555793051, 92555793052, 92555793053, 92555793054, 92555793055, 92555793056

METHOD BLANK:	2230404	Matrix:	Water
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Associated Lab Samples: 92555793041, 92555793042, 92555793043, 92555793044, 92555793045, 92555793046, 92555793047, 92555793050, 92555793051, 92555793052, 92555793053, 92555793054, 92555793055, 92555793056

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.921 ± 0.471 (0.830) C:76% T:80%	pCi/L	09/14/21 14:00	

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.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

QC Batch: 461964

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92555793001, 92555793002, 92555793003, 92555793004, 92555793005, 92555793006, 92555793007, 92555793008, 92555793009, 92555793010, 92555793011, 92555793012, 92555793013, 92555793014, 92555793015, 92555793016, 92555793017, 92555793018, 92555793019, 92555793025

METHOD BLANK: 2230402

Matrix: Water

Associated Lab Samples: 92555793001, 92555793002, 92555793003, 92555793004, 92555793005, 92555793006, 92555793007, 92555793008, 92555793009, 92555793010, 92555793011, 92555793012, 92555793013, 92555793014, 92555793015, 92555793016, 92555793017, 92555793018, 92555793019, 92555793025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.369 ± 0.363 (0.748) C:78% T:81%	pCi/L	09/13/21 11:13	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

QC Batch: 461715

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92555793001, 92555793002, 92555793003, 92555793004, 92555793005, 92555793006, 92555793007, 92555793008, 92555793009, 92555793010, 92555793011, 92555793012, 92555793013, 92555793014, 92555793015, 92555793016, 92555793017, 92555793018, 92555793019

METHOD BLANK: 2229165

Matrix: Water

Associated Lab Samples: 92555793001, 92555793002, 92555793003, 92555793004, 92555793005, 92555793006, 92555793007, 92555793008, 92555793009, 92555793010, 92555793011, 92555793012, 92555793013, 92555793014, 92555793015, 92555793016, 92555793017, 92555793018, 92555793019

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.177 ± 0.365 (0.850) C:86% T:NA	pCi/L	09/15/21 09:46	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

QC Batch: 461965

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92555793020, 92555793021, 92555793022, 92555793023, 92555793024, 92555793026, 92555793027, 92555793028, 92555793029, 92555793030, 92555793031, 92555793032, 92555793033, 92555793034, 92555793035, 92555793036, 92555793037, 92555793038, 92555793039, 92555793040

METHOD BLANK: 2230403

Matrix: Water

Associated Lab Samples: 92555793020, 92555793021, 92555793022, 92555793023, 92555793024, 92555793026, 92555793027, 92555793028, 92555793029, 92555793030, 92555793031, 92555793032, 92555793033, 92555793034, 92555793035, 92555793036, 92555793037, 92555793038, 92555793039, 92555793040

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.945 ± 0.432 (0.722) C:79% T:77%	pCi/L	09/14/21 10:52	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

QC Batch: 461717

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92555793040, 92555793041, 92555793042, 92555793043, 92555793044, 92555793045, 92555793046, 92555793047, 92555793050, 92555793051, 92555793052, 92555793053, 92555793054, 92555793055, 92555793056

METHOD BLANK: 2229167

Matrix: Water

Associated Lab Samples: 92555793040, 92555793041, 92555793042, 92555793043, 92555793044, 92555793045, 92555793046, 92555793047, 92555793050, 92555793051, 92555793052, 92555793053, 92555793054, 92555793055, 92555793056

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.186 ± 0.240 (0.504) C:88% T:NA	pCi/L	09/17/21 08:14	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

QC Batch: 461716

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92555793020, 92555793021, 92555793022, 92555793023, 92555793024, 92555793025, 92555793026, 92555793027, 92555793028, 92555793029, 92555793030, 92555793031, 92555793032, 92555793033, 92555793034, 92555793035, 92555793036, 92555793037, 92555793038, 92555793039

METHOD BLANK: 2229166

Matrix: Water

Associated Lab Samples: 92555793020, 92555793021, 92555793022, 92555793023, 92555793024, 92555793025, 92555793026, 92555793027, 92555793028, 92555793029, 92555793030, 92555793031, 92555793032, 92555793033, 92555793034, 92555793035, 92555793036, 92555793037, 92555793038, 92555793039

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.483 ± 0.324 (0.537) C:73% T:NA	pCi/L	09/17/21 07:25	

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QUALIFIERS

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(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.

ANALYTE QUALIFIERS

- | | |
|----|---|
| 1g | The Matrix Spike duplicate recovery is less than the lower limit for MS recovery. Results have been reported based on acceptable RPD between the MS and MSD. |
| 2g | The Ra-226 Matrix Spike Duplicate recovery was low and outside of the default acceptance criteria for MS recovery. Sample results have been reported based on acceptable RPD for the RQS pair. The low MSD recovery may be due to sample matrix interference. |
| 3g | The Ra-226 Matrix Spike recovery was low and outside of the default acceptance criteria for MS recovery. Sample results have been reported based on acceptable RPD for the RQS pair. The low MS recovery may be due to sample matrix interference. |

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92555793001	BB13758 MW-6S	EPA 9315	461715		
92555793002	BB13758 MW-6S MS	EPA 9315	461715		
92555793003	BB13758 MW-6S MSD	EPA 9315	461715		
92555793004	BB13759 MW-6D	EPA 9315	461715		
92555793005	BB13760 MW-23H	EPA 9315	461715		
92555793006	BB13761 MW-23H DUP	EPA 9315	461715		
92555793007	BB13762 MW-41HS	EPA 9315	461715		
92555793008	BB13763 FB-1	EPA 9315	461715		
92555793009	BB14110 MW-30HA	EPA 9315	461715		
92555793010	BB14111 MW-31H	EPA 9315	461715		
92555793011	BB14390 MW-15V	EPA 9315	461715		
92555793012	BB14391 MW-15	EPA 9315	461715		
92555793013	BB14392 MW-16S	EPA 9315	461715		
92555793014	BB14393 MW-21	EPA 9315	461715		
92555793015	BB14394 MW-2	EPA 9315	461715		
92555793016	BB14395 MW-29H	EPA 9315	461715		
92555793017	BB14396 MW-6V	EPA 9315	461715		
92555793018	BB14397 MW-3	EPA 9315	461715		
92555793019	BB14398 EB-1	EPA 9315	461715		
92555793020	BB14399 MW-41HD	EPA 9315	461716		
92555793021	BB14399 MW-41HD MS	EPA 9315	461716		
92555793022	BB14399 MW-41HD MSD	EPA 9315	461716		
92555793023	BB14400 MW-24H	EPA 9315	461716		
92555793024	BB14401 MW-24H DUP	EPA 9315	461716		
92555793025	BB14402 MW-38H	EPA 9315	461716		
92555793026	BB14403 MW-42H	EPA 9315	461716		
92555793027	BB14404 MW-17V	EPA 9315	461716		
92555793028	BB14405 MW-17	EPA 9315	461716		
92555793029	BB14406 MW-17 DUP	EPA 9315	461716		
92555793030	BB14407 FB-2	EPA 9315	461716		
92555793031	BB14408 PZ-22	EPA 9315	461716		
92555793032	BB14409 MW-43H	EPA 9315	461716		
92555793033	BB14410 MW-36H	EPA 9315	461716		
92555793034	BB14829 MW-12	EPA 9315	461716		
92555793035	BB14830 FB-3	EPA 9315	461716		
92555793036	BB14831 MW-12V	EPA 9315	461716		
92555793037	BB14832 MW-12V DIS	EPA 9315	461716		
92555793038	BB14833 MW-19	EPA 9315	461716		
92555793039	BB14834 MW-19 DUP	EPA 9315	461716		
92555793040	BB14835 MW-9V	EPA 9315	461717		
92555793041	BB14836 MW-16D	EPA 9315	461717		
92555793042	BB14836 MW-16D MS	EPA 9315	461717		
92555793043	BB14836 MW-16D MSD	EPA 9315	461717		
92555793044	BB14837 PZ-16	EPA 9315	461717		
92555793045	BB14838 MW-28H	EPA 9315	461717		
92555793046	BB14839 MW-32H	EPA 9315	461717		
92555793047	BB14840 MW-7	EPA 9315	461717		
92555793050	BB14841 MW-7 DIS	EPA 9315	461717		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GORGAS ASH POND WMWGORAP_1333

Pace Project No.: 92555793

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92555793051	BB14842 MW-40H	EPA 9315	461717		
92555793052	BB14843 MW-26H	EPA 9315	461717		
92555793053	BB14844 FB-4	EPA 9315	461717		
92555793054	BB14845 MW-8	EPA 9315	461717		
92555793055	BB14948 MW-21V	EPA 9315	461717		
92555793056	BB14949 MW-25HA	EPA 9315	461717		
92555793001	BB13758 MW-6S	EPA 9320	461964		
92555793002	BB13758 MW-6S MS	EPA 9320	461964		
92555793003	BB13758 MW-6S MSD	EPA 9320	461964		
92555793004	BB13759 MW-6D	EPA 9320	461964		
92555793005	BB13760 MW-23H	EPA 9320	461964		
92555793006	BB13761 MW-23H DUP	EPA 9320	461964		
92555793007	BB13762 MW-41HS	EPA 9320	461964		
92555793008	BB13763 FB-1	EPA 9320	461964		
92555793009	BB14110 MW-30HA	EPA 9320	461964		
92555793010	BB14111 MW-31H	EPA 9320	461964		
92555793011	BB14390 MW-15V	EPA 9320	461964		
92555793012	BB14391 MW-15	EPA 9320	461964		
92555793013	BB14392 MW-16S	EPA 9320	461964		
92555793014	BB14393 MW-21	EPA 9320	461964		
92555793015	BB14394 MW-2	EPA 9320	461964		
92555793016	BB14395 MW-29H	EPA 9320	461964		
92555793017	BB14396 MW-6V	EPA 9320	461964		
92555793018	BB14397 MW-3	EPA 9320	461964		
92555793019	BB14398 EB-1	EPA 9320	461964		
92555793020	BB14399 MW-41HD	EPA 9320	461965		
92555793021	BB14399 MW-41HD MS	EPA 9320	461965		
92555793022	BB14399 MW-41HD MSD	EPA 9320	461965		
92555793023	BB14400 MW-24H	EPA 9320	461965		
92555793024	BB14401 MW-24H DUP	EPA 9320	461965		
92555793025	BB14402 MW-38H	EPA 9320	461964		
92555793026	BB14403 MW-42H	EPA 9320	461965		
92555793027	BB14404 MW-17V	EPA 9320	461965		
92555793028	BB14405 MW-17	EPA 9320	461965		
92555793029	BB14406 MW-17 DUP	EPA 9320	461965		
92555793030	BB14407 FB-2	EPA 9320	461965		
92555793031	BB14408 PZ-22	EPA 9320	461965		
92555793032	BB14409 MW-43H	EPA 9320	461965		
92555793033	BB14410 MW-36H	EPA 9320	461965		
92555793034	BB14829 MW-12	EPA 9320	461965		
92555793035	BB14830 FB-3	EPA 9320	461965		
92555793036	BB14831 MW-12V	EPA 9320	461965		
92555793037	BB14832 MW-12V DIS	EPA 9320	461965		
92555793038	BB14833 MW-19	EPA 9320	461965		
92555793039	BB14834 MW-19 DUP	EPA 9320	461965		
92555793040	BB14835 MW-9V	EPA 9320	461965		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92555793041	BB14836 MW-16D	EPA 9320	461966		
92555793042	BB14836 MW-16D MS	EPA 9320	461966		
92555793043	BB14836 MW-16D MSD	EPA 9320	461966		
92555793044	BB14837 PZ-16	EPA 9320	461966		
92555793045	BB14838 MW-28H	EPA 9320	461966		
92555793046	BB14839 MW-32H	EPA 9320	461966		
92555793047	BB14840 MW-7	EPA 9320	461966		
92555793050	BB14841 MW-7 DIS	EPA 9320	461966		
92555793051	BB14842 MW-40H	EPA 9320	461966		
92555793052	BB14843 MW-26H	EPA 9320	461966		
92555793053	BB14844 FB-4	EPA 9320	461966		
92555793054	BB14845 MW-8	EPA 9320	461966		
92555793055	BB14948 MW-21V	EPA 9320	461966		
92555793056	BB14949 MW-25HA	EPA 9320	461966		
92555793001	BB13758 MW-6S	Total Radium Calculation	464614		
92555793004	BB13759 MW-6D	Total Radium Calculation	464614		
92555793005	BB13760 MW-23H	Total Radium Calculation	464614		
92555793006	BB13761 MW-23H DUP	Total Radium Calculation	464614		
92555793007	BB13762 MW-41HS	Total Radium Calculation	464614		
92555793008	BB13763 FB-1	Total Radium Calculation	464614		
92555793009	BB14110 MW-30HA	Total Radium Calculation	464614		
92555793010	BB14111 MW-31H	Total Radium Calculation	464614		
92555793011	BB14390 MW-15V	Total Radium Calculation	464614		
92555793012	BB14391 MW-15	Total Radium Calculation	464614		
92555793013	BB14392 MW-16S	Total Radium Calculation	464614		
92555793014	BB14393 MW-21	Total Radium Calculation	464614		
92555793015	BB14394 MW-2	Total Radium Calculation	464614		
92555793016	BB14395 MW-29H	Total Radium Calculation	464614		
92555793017	BB14396 MW-6V	Total Radium Calculation	464614		
92555793018	BB14397 MW-3	Total Radium Calculation	464614		
92555793019	BB14398 EB-1	Total Radium Calculation	464614		
92555793020	BB14399 MW-41HD	Total Radium Calculation	464613		
92555793023	BB14400 MW-24H	Total Radium Calculation	464613		
92555793024	BB14401 MW-24H DUP	Total Radium Calculation	464613		
92555793025	BB14402 MW-38H	Total Radium Calculation	464613		
92555793026	BB14403 MW-42H	Total Radium Calculation	464613		
92555793027	BB14404 MW-17V	Total Radium Calculation	464613		
92555793028	BB14405 MW-17	Total Radium Calculation	464613		
92555793029	BB14406 MW-17 DUP	Total Radium Calculation	464613		
92555793030	BB14407 FB-2	Total Radium Calculation	464613		
92555793031	BB14408 PZ-22	Total Radium Calculation	464613		
92555793032	BB14409 MW-43H	Total Radium Calculation	464613		
92555793033	BB14410 MW-36H	Total Radium Calculation	464613		
92555793034	BB14829 MW-12	Total Radium Calculation	464613		
92555793035	BB14830 FB-3	Total Radium Calculation	464613		
92555793036	BB14831 MW-12V	Total Radium Calculation	464613		
92555793037	BB14832 MW-12V DIS	Total Radium Calculation	464613		
92555793038	BB14833 MW-19	Total Radium Calculation	464613		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GORGAS ASH POND WMWGORAP_1333
Pace Project No.: 92555793

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92555793039	BB14834 MW-19 DUP	Total Radium Calculation	464613		
92555793040	BB14835 MW-9V	Total Radium Calculation	464611		
92555793041	BB14836 MW-16D	Total Radium Calculation	464611		
92555793044	BB14837 PZ-16	Total Radium Calculation	464611		
92555793045	BB14838 MW-28H	Total Radium Calculation	464611		
92555793046	BB14839 MW-32H	Total Radium Calculation	464611		
92555793047	BB14840 MW-7	Total Radium Calculation	464611		
92555793050	BB14841 MW-7 DIS	Total Radium Calculation	464611		
92555793051	BB14842 MW-40H	Total Radium Calculation	464611		
92555793052	BB14843 MW-26H	Total Radium Calculation	464611		
92555793053	BB14844 FB-4	Total Radium Calculation	464611		
92555793054	BB14845 MW-8	Total Radium Calculation	464611		
92555793055	BB14948 MW-21V	Total Radium Calculation	464611		
92555793056	BB14949 MW-25HA	Total Radium Calculation	464611		

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Client Name: Alabama Power Company

WO#: **92555793**



LIVIS Login

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 5140 3411 8735

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

pH paper Lot# 1000911 Date and Initials of person examining contents: AL 8/17/21

Comments:

	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>			1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>			2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>			3.
Sampler Name & Signature on COC:		<input checked="" type="checkbox"/>		4.
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>			5. see below
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>			6.
Short Hold Time Analysis (<72hr remaining):		<input checked="" type="checkbox"/>		7.
Rush Turn Around Time Requested:		<input checked="" type="checkbox"/>		8.
Sufficient Volume:	<input checked="" type="checkbox"/>			9.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>			10.
Containers Intact:	<input checked="" type="checkbox"/>			11.
Orthophosphate field filtered			<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous sample field filtered			<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:			<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests			<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"/>			16.
All containers meet method preservation requirements.				Initial when completed: <u>AL</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			<input checked="" type="checkbox"/>	17.
Trip Blank Present:			<input checked="" type="checkbox"/>	18.
Trip Blank Custody Seals Present			<input checked="" type="checkbox"/>	
Rad Samples Screened < 0.5 mrem/hr				Initial when completed: <u>AL</u> Date: <u>8/17/21</u> Survey Meter SN: <u>1503</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

chain has sample ID MW-19H DUP, sample label ID MW-19 DUP, same date and time

8/18/21 - Revised COC attached (NGD)

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.

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
 City/State: Calera, AL 35040
 Email To: lbmidt@southemco.com
 Phone: 205-664-6157
 Fax: 205-664-6157
 Requested Due Date: 28 days

Section B
 Required Project Information:

Report To: Laura Mickitt
 Copy To: Brooke Caron & Renee Jernigan
 Purchase Order #: APC10700668
 Project Name: Plant Gorgas Ash Pond
 Project Number: WMMWGORAP 1333

Section C
 Invoice Information:

Attention: Laura Mickitt
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 City/State: Calera, AL 35040
 Face Project Manager: Kevin Herrington
 Pace Profile #: 13805

Regulatory Agency:
 State/Location: AL

ITEM #	SAMPLE ID <small>One character per box. (A-Z, 0-9 /, -) Sample ids must be unique</small>	MATRIX <small>Drinking Water DW Water W Waste Water WW Product P Sewage/Solid SL Oil OI Wipe WI Air AR Other OT Tissue TS</small>	CODE <small>DW W WW P SL OI WI AR OT TS</small>	MATRIX CODE	SAMPLE TYPE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS <small>Unpreserved</small>	Preservatives	Analyses Test	Residual Chlorine (Y/N)	TEMP in C	SAMPLE CONDITIONS												
				(see valid codes to left)	(G=GRAB C=COMP)	START DATE	START TIME							END DATE	END TIME	EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)				
1	BB13758	MM-SS	GM/G	7/27/2021	10:55				3	X	X	X														
2	BB13759	MM-AD	GM/G	7/27/2021	12:08				1	X	X	X														
3	BB13760	MM-23H	GM/G	7/27/2021	13:35				1	X	X	X														
4	BB13761	MM-23H DUP	GM/G	7/27/2021	13:35				1	X	X	X														
5	BB13762	MM-41HS	GM/G	7/28/2021	10:30				1	X	X	X														
6	BB13763	FB-1	GM/G	7/29/2021	11:30				1	X	X	X														
7																										
8																										
9																										
10																										
11																										
12																										

MO# : 92555793
 PM: NMG
 CLIENT : 92-RL Power

RELINQUISHED BY / AFFILIATION: Laura Mickitt/ APC GTL. DATE: 8/11/2021. TIME: 16:00.
 ACCEPTED BY / AFFILIATION: *[Signature]* DATE: 8/12/21. TIME: 08:50.

SAMPLER NAME AND SIGNATURE: *[Signature]*
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER:
 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

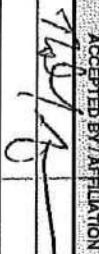
Required Client Information:
 Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8
 Calera, AL 35040
 Email To: lbmickl@southernco.com
 Phone: 205-654-5197 Fax
 Requested Due Date: 28 days

Section B

Required Project Information:
 Report To: Laura Mickliff
 Copy To: Brooke Catton & Renee Jernigan
 Purchase Order #: APC10700668
 Project Name: Plant Gotgas Ash Pond
 Project Number: WMMWGORAP 1333

Section C

Invoice Information:
 Attention: Laura Mickliff
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 Pace Guide: CCR
 Pace Project Manager: Kevin.Herring@pacelabs.com
 Pace Profile #: 13805

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	Matrix Drinking Water Water Waste Water Product Soil Other Tissue	CODE DW WT WW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	Preservatives								Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)										
						START DATE	END DATE				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other																			
						TIME	TIME				X	X	X	X	X	X	X																			
1	BB14110	MMW-30HA		GMG	BZ2021	12:03		1	X										X	X	X															
2	BB14111	MMW-31H		GMG	BZ2021	14:02		1		X									X	X	X															
3																																				
4																																				
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				
11																																				
12																																				
ADDITIONAL COMMENTS		RELINQUISHED BY/AFFILIATION:		DATE	TIME	ACCEPTED BY/AFFILIATION:		DATE	TIME	SAMPLE CONDITIONS																										
		Laura Mickliff APC GTL		8/11/2021	16:00			8-11-21	0950	NH																										

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER:

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 35004
 Section B Required Project Information: Report To: Laura Midkiff, Copy To: Brooke Catton & Renee Jernigan, Project Name: Plant Gargas Ash Pond, Project Number: VWWGORAP 1333
 Section C Invoice Information: Attention: Laura Midkiff, Company Name: Alabama Power Co., Address: 744 Highway 87 GSC Bldg #8, Pace Project Manager: Kevin Herrington@oasdelas.com, Pace Profile #: 13805
 Page: 3 Of 9

Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8, Calera, AL 35004
 Email To: lmidkiff@southernco.com
 Phone: 205-664-6197 Fax
 Requested Due Date: 28 days
 Purchase Order #: APC07000668
 Project Name: Plant Gargas Ash Pond
 Project Number: VWWGORAP 1333
 Attention: Laura Midkiff
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 Pace Project Manager: Kevin Herrington@oasdelas.com
 Pace Profile #: 13805
 State / Location: AL

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	MATRIX Drinking Water Water Waste Water Product Self-Sold Oil Wipe Air Other Tissue	CODE DW WT VWV P SL OL VAP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	Preservatives							Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)							
						START DATE	START TIME				END DATE	END TIME	H2SO4	HNO3	HCl	NaOH	Na2S2O3									Methanol	Other					
1	BB14390			GM/G	8/3/2021	11:41			1	X	X							X	X	X												
2	BB14391			GM/G	8/3/2021	13:29			1	X	X							X	X	X												
3	BB14392			GM/G	8/3/2021	16:04			1	X	X							X	X	X												
4	BB14393			GM/G	8/4/2021	9:47			1	X	X							X	X	X												
5	BB14394			GM/G	8/4/2021	12:05			1	X	X							X	X	X												
6	BB14395			GM/G	8/4/2021	13:57			1	X	X							X	X	X												
7																																
8																																
9																																
10																																
11																																
12																																
ADDITIONAL COMMENTS		RETIROUSHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)																	
		Laura Midkiff/APC/GTL		8/11/2021	16:00	<i>[Signature]</i>		8-17-21	0950	M/A		N	N	N	Y																	

SAMPLER NAME AND SIGNATURE: _____
 PRINT NAME OF SAMPLER: _____
 SIGNATURE OF SAMPLER: _____
 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: Company: Alabama Power Company
Address: 744 Highway 87 GSC Bldg #8
City: Calera, AL 35040
Email To: lmidkiff@southernco.com
Phone: 205-664-5197
Requested Due Date: 28 days

Section B Required Project Information: Report To: Laura Midkiff
Copy To: Brooke Cation & Renee Jernigan
Purchase Order #: APC10700668
Project Name: Plant Gorgas Ash Pond
Project Number: WNWGORAP 1333

Section C Invoice Information: Attention: Laura Midkiff
Company Name: Alabama Power Co.
Address: 744 Highway 87 GSC Bldg #8
Page Quote: OCR
Page Project Manager: Kevin.Herring@pacelabs.com
Page Profile #: 13805

Page : 4 Of 9

ITEM #	SAMPLE ID <small>One Character per box (A-Z, 0-9 / . -)</small> Sample Ids must be unique	MATRIX <small>Dinking Water Water Waste Water Product Sewage Oil Wipe Air Other Tissue</small>	CODE <small>DW WT WW P SL OL WP AR OT TS</small>	MATRIX CODE <small>(see valid codes to left)</small>	SAMPLE TYPE <small>(G=GRAB C=COMP)</small>	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS														
						START DATE TIME	END DATE TIME			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other					EPA 8315	EPA 8320	Total Radium Sum	Matrix Spike/Matrix Spike D	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)							
1	BB14396	MM-4V	GW G	8/2/2021 14:23				1	1	X																										
2	BB14397	MM-3	GW G	8/3/2021 11:15				1	1	X																										
3	BB14398	EP-1	GW G	8/3/2021 12:00				1	1	X																										
4	BB14399	MM-41HD	GW G	8/3/2021 13:10				3	3	X																										
5	BB14400	MM-24H	GW G	8/3/2021 14:37				1	1	X																										
6	BB14401	MM-24H DUP	GW G	8/3/2021 14:37				1	1	X																										
7	BB14402	MM-38H	GW G	8/4/2021 11:15				1	1	X																										
8	BB14403	MM-42H	GW G	8/4/2021 13:45				1	1	X																										
9																																				
10																																				
11																																				
12																																				
ADDITIONAL COMMENTS		REMOVED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	TEMP in C		Received on Ice (Y/N)		Custody Sealed Cooler (Y/N)		Samples Intact (Y/N)																				
		Laura Midkiff APC GTL		8/11/2021	16:00	<i>LAM</i>		8-17-21	0950	N		N		Y																						
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:		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	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	Alabama Power Company	Report To:	Laura Mickitt	Attention:	Laura Mickitt
Address:	744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To:	Brooke Caton & Renee Jernigan	Company Name:	Alabama Power Co.
Phone:	205-664-6197	Purchase Order #:	APC107/00668	Address:	744 Highway 87 GSC Bldg #8
Requested Due Date:	28 days	Project Name:	Plant Gorges Ash Pond	Face Quote:	CCR
		Project Number:	WWWGORAP 1333	Face Project Manager:	Kevin Herring@doceletls.com
				Face Profile #:	13805
				Requested Analysis Filtered (Y/N)	AL
				Regulatory Agency	
				State / Location	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -)	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	Preservatives								Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)											
						START	END				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other																							
1	BB14404	MW-17V	GW/G	9/2/2021	13:05			1	X																															
2	BB14405	MW-17	GW/G	8/3/2021	10:25			1	X																															
3	BB14406	MW-17 DUP	GW/G	8/3/2021	10:25			1	X																															
4	BB14407	FB-2	GW/G	8/3/2021	11:00			1	X																															
5	BB14408	PZ-22	GW/G	8/3/2021	12:30			1	X																															
6	BB14409	MW-43H	GW/G	8/4/2021	10:40			1	X																															
7	BB14410	MW-36H	GW/G	8/4/2021	13:13			1	X																															
8																																								
9																																								
10																																								
11																																								
12																																								

ADDITIONAL COMMENTS:	RETIQUISHED BY / AFFILIATION:	DATE:	TIME:	ACCEPTED BY / AFFILIATION:	DATE:	TIME:	SAMPLE CONDITIONS:
	Laura Mickitt/ APC GTL	8/11/2021	16:00	<i>[Signature]</i>	8-17-21	0:55	NA N Y
SAMPLER NAME AND SIGNATURE:				DATE Signed:			
PRINT Name of SAMPLER:				DATE Signed:			
SIGNATURE of SAMPLER:				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:

Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8
 City: Calera, AL 35040
 Email To: lbmidkiff@southemco.com
 Phone: 205-664-6197
 Requested Due Date: 28 days

Section B
 Required Project Information:

Report To: Laura Midkiff
 Copy To: Brooke Catton & Renee Jernigan
 Purchase Order #: APC10700668
 Project Name: Plant Gorgas Ash Pond
 Project Number: WMWGORAP_1333

Section C
 Invoice Information:

Attention: Laura Midkiff
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 POC Name: Kevin Herrinda@pacelabs.com
 POC Title: POC
 POC Profile #: 13805

ITEM #	MATRIX One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique	MATRIX CODE Drinking Water DW Waste Water WW Product P Soil/Solid SL Oil OI Wipe WI Air AR Other OT Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Regulatory Agency	State / Location													
					START		END				Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol							Other												
					DATE	TIME	DATE	TIME																												
1	BB14829	MMW-12	MMW-12	GW G	9/9/2021	11:57			1	X																										
2	BB14830	FB-3	FB-3	GW G	9/9/2021	13:45			1	X																										
3	BB14831	MMW-12V	MMW-12V	GW G	9/9/2021	15:13			1	X																										
4	BB14832	MMW-12V/DIS	MMW-12V/DIS	GW G	9/9/2021	15:13			1	X																										
5	BB14833	MMW-19	MMW-19	GW G	8/10/2021	10:06			1	X																										
6	BB14834	MMW-19 DUP	MMW-19 DUP	GW G	8/10/2021	10:06			1	X																										
7	BB14835	MMW-9V	MMW-9V	GW G	8/10/2021	13:04			1	X																										
8																																				
9																																				
10																																				
11																																				
12																																				
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS		TEMP in C		Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)																				
		Laura Midkiff/ APC GTL		9/11/2021	16:00																															

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER: _____ 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:

Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8
 Calera, AL 35040
 Email To: lbmidkiff@southernco.com
 Phone: 205-664-6197 Fax
 Requester Due Date: 28 days

Section B

Required Project Information:


Report To: Laura Midkiff
 Copy To: Brooke Caton & Renee Jernigan
 Purchase Order #: AP C10700668
 Project Name: Plant Gorgas Ash Pond
 Project Number: WMWGORAP 1333

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: Kevin Herrington@paceelabs.com
 Pace Profile #: 13805

Page : 7 Of 9

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX Drinking Water Water Waste Water Product Semi-Solid Oil Vine Other Tissue	CODE DW WT WV P SL CL VP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB G=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analyses Test	Y/N	EPA 8315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	Requested Analysis Filled (Y/N)	Residual Chlorine (Y/N)	State / Location	Regulatory Agency																	
						DATE	TIME			DATE	TIME	Unpreserved	H2SO4	HNO3	HCl											NaOH	Na2S2O3	Methanol	Other													
1	BB14836		MMW-16D	GM/G	G	8/9/2021	11:55		3	X								X																								
2	BB14837		PZ-16	GM/G	G	8/9/2021	13:15		1	X								X																								
3	BB14838		MMW-28H	GM/G	G	8/9/2021	15:22		1	X								X																								
4	BB14839		MMW-32H	GM/G	G	8/10/2021	9:14		1		X							X																								
5																																										
6																																										
7																																										
8																																										
9																																										
10																																										
11																																										
12																																										
ADDITIONAL COMMENTS				REINQUIRED BY/AFFILIATION		DATE	TIME	ACCEPTED BY/AFFILIATION				DATE	TIME	SAMPLE CONDITIONS		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)																							
				Laura Midkiff APC.GTL		8/11/2021	16:00	 Laura Midkiff APC.GTL				8-17-21	09:50	JA	N	N	Y																									

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER:
 SIGNATURE of SAMPLER:

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

Required Client Information:
 Company: Alabama Power Company Report To: Laura Mickitt
 Address: 744 Highway 87 GSC Bldg #8 Copy To: Brooke Catton & Renee Jernigan
 Email To: lornickit@southernco.com Project Name: Plant Gorgas Ash Pond
 Phone: 205-664-8197 Fax: Project Number: WNWGORAP 1333
 Requested Due Date: 28 days

Invoice Information:
 Attention: Laura Mickitt
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 Pace Project Manager: Kevin.Herrina@apeoples.com
 Pace Profile #: 13805

Requested Analysis Filtered (Y/N):
 Residual Chlorine (Y/N): AL

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique</small>	MATRIX <small>Drinking Water Water Waste Water Product Soil/soil Oil Wipe Air Other Tissue</small>	CODE <small>DW WT WW P SL WP AR OT TS</small>	MATRIX CODE (see valid codes to len)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	Unpreserved	Preservatives										Analyses Test				Residual Chlorine (Y/N)				
						START DATE	START TIME	END DATE	END TIME			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	EPA 9316	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D								
1	SB14840	MM-7		MM-7	G		8/9/2021	12:55			1	X							X											
2	BB14841	MM-7 DIS		MM-7 DIS	G		8/9/2021	12:55			1	X							X											
3	BB14842	MM-40H		MM-40H	G		8/10/2021	10:05			1	X							X											
4	BB14843	MM-28H		MM-28H	G		8/10/2021	11:55			1	X							X											
5	BB14844	FB-4		FB-4	G		8/10/2021	12:45			1	X							X											
6	BB14845	MM-8		MM-8	G		8/10/2021	13:28			1	X							X											
7																														
8																														
9																														
10																														
11																														
12																														

REINQUISHED BY / AFFILIATION: Laura Mickitt/ APC GTL **DATE:** 8/11/2021 **TIME:** 1600

ACCEPTED BY / AFFILIATION:  **DATE:** 8-17-21 **TIME:** 0950

TEMP in C: 14 **SAMPLE CONDITIONS:** Received on Ice (Y/N): N Custody Sealed Cooler (Y/N): N Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE: PRINT Name of SAMPLER: SIGNATURE of SAMPLER: 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 Mickitt	Attention: Laura Mickitt
Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To: Brooke Caton & Renee Jernigan	Company Name: Alabama Power Co.
Email To: lbittiki@southernco.com	Purchase Order #: APC10700668	Address: 744 Highway 87 GSC Bldg #8
Phone: 205-664-6197 Fax:	Project Name: Plant Gorgas Ash Pond	Pace Quote: CCR
Requested Due Date: 28 days	Project Number: WMMWGORAP 1333	Pace Project Manager: Kevin Herring@paccelabs.com
		Pace Profile #: 13805
		Requested Analysis Filtered (Y/N)
		Regulatory Agency
		State / Location
		AL

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique</small>	MATRIX <small>Drinking Water Waste Water Product Sulfuric Acid Other TS</small>	CODE <small>DW WT WW P SL OT OT TS</small>	MATRIX CODE <small>(see valid codes to left)</small>	SAMPLE TYPE <small>(G=GRAB C=COMP)</small>	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analyses Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
						START DATE TIME	END DATE TIME						
1	BB13/758	MM-6S		GW G	G	7/27/2021 10:55		3	X	X	X	X	
2	BB13/759	MM-6D		GW G	G	7/27/2021 12:08		1	X	X	X	X	
3	BB13/760	MM-23H		GW G	G	7/27/2021 13:35		1	X	X	X	X	
4	BB13/761	MM-23H DUP		GW G	G	7/27/2021 13:35		1	X	X	X	X	
5	BB13/762	MM-41HS		GW G	G	7/28/2021 10:30		1	X	X	X	X	
6	BB13/763	FE-1		GW G	G	7/28/2021 11:30		1	X	X	X	X	
7													
8													
9													
10													
11													
12													

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS	
		Laura Mickitt/ APC GTL		8/11/2021	16:00					TEMP in C	Received on Ice (Y/N)
											Custody Sealed Cooler (Y/N)
											Samples Intact (Y/N)

WO#: 92555793
 PM: NMG Due Date: 09/16/21
 CLIENT: 92-AL Power

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																																																																																							
Required Client Information:				Required Project Information:				Invoice Information:																																																																																							
Company: Alabama Power Company				Report To: Laura Mickliff				Attention: Laura Mickliff																																																																																							
Address: 744 Highway 87 GSC Bldg #8				Copy To: Brooke Cation & Renee Jernigan				Company Name: Alabama Power Co.																																																																																							
City: Calera, AL 35040				Purchase Order #: APC10700668				Address: 744 Highway 87 GSC Bldg #8																																																																																							
Email To: lhmickliff@southernco.com				Project Name: Plant Gorgas Ash Pond				State Project Manager: Kevin Herrington@pacelabs.com																																																																																							
Phone: 205-684-6197 Fax: [blank]				Project Number: WMMWGORAP 1333				Pace Profile #: 13805																																																																																							
Requested Due Date: 28 days				Requested Analysis Filered (Y/N)				State / Location: AL																																																																																							
<p style="text-align: center;">SAMPLE ID</p> <p style="text-align: center;">One Character per box. (A-Z, 0-9 / . -)</p> <p style="text-align: center;">Sample ids must be unique</p>		<table border="1" style="width: 100%; font-size: 8px;"> <tr><td>MATRIX</td><td>CODE</td></tr> <tr><td>Demining Water</td><td>DW</td></tr> <tr><td>Water</td><td>WT</td></tr> <tr><td>Waste Water</td><td>WW</td></tr> <tr><td>Product</td><td>P</td></tr> <tr><td>Soil/Sand</td><td>SL</td></tr> <tr><td>Waste</td><td>WP</td></tr> <tr><td>Air</td><td>AN</td></tr> <tr><td>Other</td><td>OT</td></tr> <tr><td>Tissue</td><td>TS</td></tr> </table>		MATRIX	CODE	Demining Water	DW	Water	WT	Waste Water	WW	Product	P	Soil/Sand	SL	Waste	WP	Air	AN	Other	OT	Tissue	TS	<table border="1" style="width: 100%; font-size: 8px;"> <tr><td>MATRIX CODE (see valid codes to left)</td><td>DATE</td><td>TIME</td><td>DATE</td><td>TIME</td></tr> <tr><td>SAMPLE TYPE (G=GRAB C=COMP)</td><td>START</td><td>END</td><td>START</td><td>END</td></tr> </table>		MATRIX CODE (see valid codes to left)	DATE	TIME	DATE	TIME	SAMPLE TYPE (G=GRAB C=COMP)	START	END	START	END	<table border="1" style="width: 100%; font-size: 8px;"> <tr><td>RELINQUISHED BY / AFFILIATION</td><td>DATE</td><td>TIME</td><td>ACCEPTED BY / AFFILIATION</td><td>DATE</td><td>TIME</td></tr> </table>		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	<table border="1" style="width: 100%; font-size: 8px;"> <tr><td>SAMPLE TEMP AT COLLECTION</td><td># OF CONTAINERS</td><td colspan="3">Request Analysis Filered (Y/N)</td></tr> <tr><td>Unpreserved</td><td></td><td colspan="3"></td></tr> <tr><td>H2SO4</td><td></td><td colspan="3"></td></tr> <tr><td>HNO3</td><td></td><td colspan="3"></td></tr> <tr><td>HCl</td><td></td><td colspan="3"></td></tr> <tr><td>NaOH</td><td></td><td colspan="3"></td></tr> <tr><td>Na2S2O3</td><td></td><td colspan="3"></td></tr> <tr><td>Methanol</td><td></td><td colspan="3"></td></tr> <tr><td>Other</td><td></td><td colspan="3"></td></tr> <tr><td>Analyses Test</td><td>Y/N</td><td colspan="3"></td></tr> </table>		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Request Analysis Filered (Y/N)			Unpreserved					H2SO4					HNO3					HCl					NaOH					Na2S2O3					Methanol					Other					Analyses Test	Y/N			
		MATRIX	CODE																																																																																												
		Demining Water	DW																																																																																												
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Methanol																																																																																															
Other																																																																																															
Analyses Test	Y/N																																																																																														
1	BB14110	MW-30HA	GW	8/2/2021	12:03	1	X	X	X	X																																																																																					
2	BB14111	MW-31H	GW	8/2/2021	14:02	1	X	X	X	X																																																																																					
3																																																																																															
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ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	TEMP in C			SAMPLE CONDITIONS																																																																																		
		Laura Mickliff/ APCC GTL		8/11/2021	16:00																																																																																										

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed:
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 Section B Section C

Required Client Information: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calaera, AL 35040 Email To: lbhnickliff@southernco.com Phone: 205-864-8197 Fax Requested Due Date: 28 days	Required Project Information: Report To: Laura Midkiff Copy To: Brooke Catton & Renee Jernigan Purchase Order #: APC10700668 Project Name: Plant Gorgas Ash Pond Project Number: WVVWGORAP 1333	Invoice Information: Attention: Laura Midkiff Company Name: Alabama Power Co. Address: 744 Highway 87 GSC Bldg #8 City: CCR State/Location: AL PACE Project Manager: Kevin.Herring@pacelabs.com PACE Profile #: 13805
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ITEM #	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Regulatory Agency	State / Location
					START	END			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other						EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D
1	BB14390	MM-15V	GW G	G	8/3/2021	11:41	1	X												
2	BB14391	MM-15	GW G	G	8/3/2021	13:29	1	X												
3	BB14392	MM-16S	GW G	G	8/3/2021	16:04	1	X												
4	BB14393	MM-21	GW G	G	8/4/2021	9:47	1	X												
5	BB14394	MM-2	GW G	G	8/4/2021	12:05	1	X												
6	BB14395	MM-29H	GW G	G	8/4/2021	13:57	1	X												
7																				
8																				
9																				
10																				
11																				
12																				

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Laura Midkiff APC GTL	8/11/2021	16:00			

ADDITIONAL COMMENTS

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed:
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:
 Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8
 Calera, AL 35040
 Email To: lbmickl@southernco.com
 Phone: 205-664-6197 Fax:
 Requested Due Date: 28 days

Section B
 Required Project Information:
 Report To: Laura Mickiff
 Copy To: Brooke Caton & Renee Jernigan
 Purchase Order #: APC10700668
 Project Name: Plant Gorges Ash Pond
 Project Number: WWMGORAP-1333

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: Kevin.Herring@pacealabs.com
 Pace Profile #: 13805

Regulatory Agency: AL
 State/Location: AL

Page: 4 Of 9

ITEM #	SAMPLE ID <small>One Character per box: (A-Z, 0-9, /, -) Sample ids must be unique</small>	MATRIX <small>DW: Drinking Water W: Water WW: Waste Water P: Produce SS: Soil/Sed OI: Oil M: Muds A: Air O: Other TS: Tissue</small>	CODE <small>DW: Drinking Water WT: Water WW: Waste Water P: Produce SS: Soil/Sed OI: Oil M: Muds A: Air O: Other TS: Tissue</small>	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	SAMPLE CONDITIONS																
						START	END			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol			Other	EPA 9315		EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)										
1	B314396	MW-BV		GW/G	R2/2021	14:23		1	X	X	X	X	X	X	X	X	X	X																				
2	B314397	MW-3		GW/G	R3/2021	11:15		1	X	X	X	X	X	X	X	X	X	X																				
3	B314398	EB-1		GW/G	R3/2021	12:00		1	X	X	X	X	X	X	X	X	X	X																				
4	B314399	MW-4THD		GW/G	R3/2021	13:10		3	X	X	X	X	X	X	X	X	X	X																				
5	B314400	MW-24H		GW/G	R3/2021	14:37		1	X	X	X	X	X	X	X	X	X	X																				
6	B314401	MW-24H DUP		GW/G	R3/2021	14:37		1	X	X	X	X	X	X	X	X	X	X																				
7	B314402	MW-38H		GW/G	R4/2021	11:15		1	X	X	X	X	X	X	X	X	X	X																				
8	B314403	MW-42H		GW/G	R4/2021	13:45		1	X	X	X	X	X	X	X	X	X	X																				
9																																						
10																																						
11																																						
12																																						

ADDITIONAL COMMENTS: Laura Mickiff/ APC GTL

RELINQUISHED BY / AFFILIATION: Laura Mickiff/ APC GTL
 DATE: 8/11/2021
 TIME: 16:00

ACCEPTED BY / AFFILIATION: _____
 DATE: _____
 TIME: _____

SAMPLER NAME AND SIGNATURE: _____
 PRINT Name of SAMPLER: _____
 SIGNATURE of SAMPLER: _____
 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**

Required Client Information:
 Company: Alabama Power Company Report To: Laura Middif
 Address: 744 Highway 87 GSC Bldg #8 Copy To: Brooke Caton & Renee Herrigan
 Calera, AL 35040
 Email To: lhmickliff@southernco.com Purchase Order #: APC10700668
 Phone: 205-664-6197 Fax: Project Name: Plant Gorgas Ash Pond Pace Quote: Pace Project Manager: Kevin Herrington@pacelabs.com State / Location: AL
 Requested Due Date: 28 days Project Number: WMMWGORAP 1333 Pace Profile #: 13805 Requested Analysis Filtered (Y/N):

ITEM #	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	Preservatives							Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS										
			START	END				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other					EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)			
1	BB14404	MM-17V	GW	8/2/2021	13:05	1	X									X	X	X											
2	BB14405	MW-17	GW	8/3/2021	10:25	1	X									X	X	X											
3	BB14406	MW-17 DUP	GW	8/3/2021	10:25	1	X									X	X	X											
4	BB14407	FB-2	GW	8/3/2021	11:00	1	X									X	X	X											
5	BB14408	P2-22	GW	8/3/2021	12:30	1	X									X	X	X											
6	BB14409	MW-43H	GW	8/4/2021	10:40	1	X									X	X	X											
7	BB14410	MW-36H	GW	8/4/2021	13:13	1	X									X	X	X											
8																													
9																													
10																													
11																													
12																													

RELINQUISHED BY / AFFILIATION **DATE** **TIME** **ACCEPTED BY / AFFILIATION** **DATE** **TIME**

Laura Middif/ APC GTL 8/11/2021 16:00

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: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040

Section B Required Project Information: Report To: Laura Midkiff Project Name: Plant Gorgas Ash Pond Project Number: WIMWGORAP 1333

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: Kevin Herrington@pacelabs.com Pace Profile #: 13805

Page : 6 Of 9

Regulatory Agency: AL State / Location

Requested Due Date: 28 days	Purchase Order #: APC10700668	Requested Analysis Filtered (Y/N):
	Plant Gorgas Ash Pond	

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique</small>	MATRIX CODE <small>MATRIX: Drinking Water, Water, Waste Water, Product, Seawater, Other, TSS</small>	CODE <small>DW, WT, WW, P, SL, YFP, AR, OT, TSS</small>	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS														
						START DATE	END DATE			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol					Other	EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)						
1	BB14829	MM-12		MM-12	GW/G	8/9/2021	11:57		1	X																									
2	BB14830	EB-3		EB-3	GW/G	8/9/2021	13:45		1	X																									
3	BB14831	MM-12V		MM-12V	GW/G	8/9/2021	15:13		1	X																									
4	BB14832	MM-12V DIS		MM-12V DIS	GW/G	8/9/2021	15:13		1	X																									
5	BB14833	MM-19		MM-19	GW/G	8/10/2021	10:06		1	X																									
6	BB14834	MM-19 DUP		MM-19 DUP	GW/G	8/10/2021	10:06		1	X																									
7	BB14835	MM-19V		MM-19V	GW/G	8/10/2021	13:04		1	X																									
8																																			
9																																			
10																																			
11																																			
12																																			
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME																										
		Laura Midkiff/ APC GTL		8/11/2021	15:00																														

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed:
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:	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 Calera, AL 35040	Copy To: Brooke Caton & Renee Herrigan	Company Name: Alabama Power Co.
Email To: lherrickliff@southernco.com	Purchase Order #: APC10700668	Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040
Phone: 205-664-6197 Fax	Project Name: Plant Gorgas Ash Pond	Project Manager: Kevin Herrington@pacelabs.com
Requested Due Date: 28 days	Project Number: WMMWGORAP 1333	Price Profile #: 13805
		Requested Analysis Filtered (Y/N): All
		Regulatory Agency: _____
		State / Location: _____

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9, /, -) Sample IDs must be unique</small>	MATRIX CODE <small>MATRIX VALUE</small> Dinking Value Vial Value Vial ID Product Seal/Shield OI Vial Other TS	CODE DVI WT VW P SL OIL VHP MS MS TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS									
						DATE	TIME	DATE	TIME															EPA 9315	EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)		
1	BB14836	MW-18D		GWG	G	8/9/2021	11:55				3	X																					
2	BB14837	P2-16		GWG	G	8/9/2021	13:15				1	X																					
3	BB14838	MW-28H		GWG	G	8/9/2021	15:22				1	X																					
4	BB14839	MW-32H		GWG	G	8/10/2021	9:14				1	X																					
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	TEMP in C		SAMPLE CONDITIONS																					
		Laura Mickliff APC GTL		8/11/2021	16:00																												

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed:
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:
 Company: Alabama Power Company
 Address: 744 Highway 87 GSC Bldg #8
 Calera, AL 35040
 Email To: lrrickliff@southherring.com
 Phone: 205-684-6197 Fax
 Requested Due Date: 28 days

Section B
 Required Project Information:
 Report To: Laura Mickliff
 Project Name: Plant Gorgas Ash Pond
 Project Number: WMMWGORAP 1333
 Invoice Information:
 Attention: Laura Mickliff
 Company Name: Alabama Power Co.
 Address: 744 Highway 87 GSC Bldg #8
 Pace Quote: CCR
 Pace Project Manager: Kevin.Herring@pacelabs.com
 Pace Profile #: 13805

Section C
 Regulatory Agency: AL
 State / Location: AL

ITEM #	SAMPLE ID One Character per box: (A-Z, 0-9 / -) Sample IDs must be unique	MATRIX Drinking Water Waste Water Product Sewage Oil Air Other 11000	CODE DW WT WW P SL OL WP AV OT 11000	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	Preservatives								Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)								
						START DATE	END DATE				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	EPA 9315					EPA 9320	Total Radium Sum	Matrix Spike/Matrix Spike D					
1	BB14840	MW-7		GW G	G	8/9/2021	12:55		1		X								X	X	X									
2	BB14841	MW-7 DIS		GW G	G	8/9/2021	12:55		1		X								X	X	X									
3	BB14842	MW-40H		GW G	G	8/10/2021	10:05		1		X								X	X	X									
4	BB14843	MW-28H		GW G	G	8/10/2021	11:56		1		X								X	X	X									
5	BB14844	FB-4		GW G	G	8/10/2021	12:45		1		X								X	X	X									
6	BB14845	MW-8		GW G	G	8/10/2021	13:28		1		X								X	X	X									
7																														
8																														
9																														
10																														
11																														
12																														

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Laura Mickliff APC CTL	8/11/2021	16:00				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: _____ 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, 744 Highway 87 GSC Bidg #8, Calera, AL 35004, lbmickit@southernco.com, 205-664-6197, 28 days

Section B Required Project Information: Report to: Laura Mickitf, Brooke Calton & Renee Jernigan, APCT10700668, Plant Georgas Ash Pond, WMWGORAP 1333

Section C Invoice Information: Attention: Laura Mickitf, Company Name: Alabama Power Co., Address: 744 Highway 87 GSC Bidg #8, Pace Quote: CCR, Pace Project Manager: Kevin.Herring@parcolabs.com, Pace Profile #: 13805

Page : 9 Of 9

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	State / Location
			START DATE	END DATE			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol					Other
1	BB14848	MW-21V	9/11/2021	12:39	1	X											
2	BB14849	MV-2SHA	8/12/2021	9:06	1	X											
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS				
			Brooke Calton/ AP&C GTL			8/12/2021	12:30						Received on Ice: (Y/N) Custody Sealed: (Y/N) Cooler: (Y/N) Samples Intact: (Y/N)				

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: _____
 SIGNATURE of SAMPLER: _____
 DATE Signed: _____

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 9/15/2021
Worklist: 62394
Matrix: WWT

Method Blank Assessment	
MB Sample ID	2230403
MB concentration:	0.945
MB 2 Sigma CSU:	0.432
MB MDC:	0.722
MB Numerical Performance Indicator:	4.28
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment**

Laboratory Control Sample Assessment	
LCSID (Y or N)?	N
LCS62394	LCS62394
Count Date:	9/14/2021
Spike I.D.:	21-029
Decay Corrected Spike Concentration (pCi/mL):	38.225
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.812
Target Conc. (pCi/L, g, F):	4.708
Uncertainty (Calculated):	0.231
Result (pCi/L, g, F):	4.268
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.006
Numerical Performance Indicator:	-0.84
Percent Recovery:	90.65%
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 LCS/LCSD in the space below.
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:	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:		8/3/2021	
Sample I.D.:		92555793020	
Sample MS I.D.:		92555793021	
Sample MSD I.D.:		92555793022	
Spike I.D.:		21-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		38.758	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.813	
MS Target Conc. (pCi/L, g, F):		9.535	
MSD Aliquot (L, g, F):		0.808	
MSD Target Conc. (pCi/L, g, F):		9.589	
MS Spike Uncertainty (calculated):		0.467	
MSD Spike Uncertainty (calculated):		0.470	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.453	
Sample Matrix Spike Result:		0.326	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		8.185	
Sample Matrix Spike Duplicate Result:		1.652	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		9.797	
MS Numerical Performance Indicator:		1.957	
MSD Numerical Performance Indicator:		-2.022	
MS Percent Recovery:		81.09%	
MSD Percent Recovery:		97.44%	
MS Status vs Numerical Indicator:		Warning	
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 Spiker/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	92555793020
Sample MS I.D.:	92555793021
Sample MSD I.D.:	92555793022
Sample Matrix Spike Result:	8.185
Sample Matrix Spike Duplicate Result:	1.652
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	9.797
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	-1.234
Duplicate Numerical Performance Indicator:	18.32%
Duplicate RPD:	Pass
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

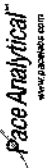
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*# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
**The method blank result is below the reporting limit for this analysis and is acceptable.

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Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
 Analyst: CLA
 Date: 9/10/2021
 Worklist: 62355
 Matrix: DW

Method Blank Assessment

MB Sample ID	2229165
MB Concentration:	0.177
MB Counting Uncertainty:	0.364
MB MDC:	0.850
MB Numerical Performance Indicator:	0.95
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

Count Date:	Spoke ID:	Volume Used (mL):	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:	Status vs Numerical Indicator:	Upper % Recovery Limits:	Lower % Recovery Limits:
9/15/2021	19-033	0.10	0.205	11.752	0.141	11.512	12.712	0.88	97.96%	N/A	125%	75%
9/15/2021	24-034	0.10	0.205	11.706	0.140	12.712	12.712	0.88	108.59%	N/A	125%	75%

Duplicate Sample Assessment

Sample ID:	LCS62355
Duplicate Sample ID:	LCS62355
Sample Result (pCi/L, g, F):	11.512
Sample Duplicate Result (pCi/L, g, F):	2.111
Sample Result Counting Uncertainty (pCi/L, g, F):	12.712
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	2.001
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	NO
Are sample and/or duplicate results below RL?	-0.808
Duplicate Numerical Performance Indicator:	10.29%
Duplicate (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	N/A
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	25%
% RPD Limit:	25%

Sample Matrix Spike Control Assessment

Sample Collection Date:	Sample I.D.	Sample MS I.D.	Sample MSD I.D.	Spoke I.D.	MS/MSD Decay Corrected Spike Concentration (pCi/mL):	Spoke Volume Used in MS (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):	Sample Result:	Sample Matrix Spike Result:	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	MS Numerical Performance Indicator:	MS Percent Recovery:	MSD Percent Recovery:	MS Status vs Numerical Indicator:	MSD Status vs Numerical Indicator:	MS/MSD Upper % Recovery Limits:	MS/MSD Lower % Recovery Limits:
7/27/2021	92555793001	92555793002	92555793003	19-033	24.035	0.20	0.200	24.032	0.206	23.371	0.288	0.280	-0.204	17.953	1.435	16.191	1.767	-7.774	75.55%	70.15%	N/A	N/A	125%	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.	92555793001
Sample MS I.D.	92555793002
Sample MSD I.D.	92555793003
Sample Spike Result:	17.953
Sample Matrix Spike Result:	1.435
Sample Spike Result Counting Uncertainty (pCi/L, g, F):	16.191
Sample Matrix Spike Duplicate Result:	1.767
Duplicate Numerical Performance Indicator:	1.517
Duplicate (Based on the Percent Recoveries) MS/MSD Duplicate RPD:	7.42%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

MSD low

*Pass MSD Low****

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

results approved based on R05 set

9/24/21 RPD acceptable

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-226
Analyst: CLA
Date: 9/13/2021
Worklist: 62356
Matrix: DW

Method Blank Assessment	
MB Sample ID:	2229166
MB Concentration:	0.483
MB Counting Uncertainty:	0.316
MB MDC:	0.537
MB Numerical Performance Indicator:	2.99
MB Status vs Numerical Indicator:	N/A
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
Count Date:	9/13/2021	LCSD62356	9/13/2021
Spike I.D.:	19-033		19-033
Decay Corrected Spike Concentration (pCi/mL):	24.034		24.034
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.207		0.207
Target Conc. (pCi/L, g, F):	11.886		11.614
Uncertainty (Calculated):	0.143		0.139
Result (pCi/L, g, F):	12.906		14.055
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	2.269		2.248
Numerical Performance Indicator:	0.68		2.12
Percent Recovery:	108.56%		121.02%
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.:	LCSD62356
Duplicate Sample I.D.:	LCSD62356
Sample Result (pCi/L, g, F):	12.506
Sample Duplicate Result (pCi/L, g, F):	2.269
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	14.055
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.705
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	10.83%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

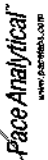
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/3/2021		
Sample I.D.:	92555793020		
Sample MS I.D.:	92555793021		
Sample MSD I.D.:	92555793022		
Spike I.D.:	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.035		
Spike Volume Used in MS (mL):	0.20		
Spike Volume Used in MSD (mL):	0.20		
MS Aliquot (L, g, F):	0.200		
MS Target Conc. (pCi/L, g, F):	23.981		
MSD Aliquot (L, g, F):	0.202		
MSD Target Conc. (pCi/L, g, F):	23.742		
MS Spike Uncertainty (calculated):	0.288		
MSD Spike Uncertainty (calculated):	0.285		
Sample Result Counting Uncertainty (pCi/L, g, F):	0.317		
Sample Matrix Spike Result:	28.623		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	2.349		
Sample Matrix Spike Duplicate Result:	28.702		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	2.240		
MS Numerical Performance Indicator:	3.909		
MSD Numerical Performance Indicator:	4.366		
MS Percent Recovery:	119.86%		
MSD Percent Recovery:	121.39%		
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.:	92555793020
Sample MS I.D.:	92555793021
Sample MSD I.D.:	92555793022
Sample Matrix Spike Result:	28.623
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	2.349
Sample Matrix Spike Duplicate Result:	28.702
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	2.240
Duplicate Numerical Performance Indicator:	-0.047
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	1.28%
MS/MSD Duplicate Status vs Numerical Indicator:	N/A
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: CLA
Date: 1/01/1900
Worklist: 62357
Matrix: DW

Method Blank Assessment	
MB Sample ID	2229167
MB Concentration	0.186
MB Counting Uncertainty	0.239
MB MDC	0.504
MB Numerical Performance Indicator	1.53
MB Status vs Numerical Indicator	N/A
MB Status vs MDC	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?	Y
Count Date	9/17/2021	LCSD62357	
Spike I.D.	19-033		9/17/2021
Decay Corrected Spike Concentration (pCi/mL)	24.034		19-033
Volume Used (mL)	0.10		0.10
Aliquot Volume (L, g, F)	0.200		0.203
Target Conc. (pCi/L, g, F)	11.998		0.142
Uncertainty (Calculated)	9.775		9.135
Result (pCi/L, g, F)	1.787		1.569
LCSD Counting Uncertainty (pCi/L, g, F)	-2.43		-3.34
Numerical Performance Indicator	81.47%		77.30%
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.	LCSD62357
Duplicate Sample I.D.	LCSD62357
Sample Result (pCi/L, g, F)	9.775
Duplicate Result (pCi/L, g, F)	9.135
Sample Result Counting Uncertainty (pCi/L, g, F)	1.787
Duplicate Result Counting Uncertainty (pCi/L, g, F)	1.569
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F)	NO
Duplicate Duplicate Result Counting Uncertainty (pCi/L, g, F)	0.527
Are sample and/or duplicate results below RL?	5.25%
Duplicate Numerical Performance Indicator	N/A
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD	Pass
Duplicate Status vs Numerical Indicator	25%
Duplicate Status vs RPD	
% RPD Limit	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date	8/9/2021		
Sample I.D.	92555793041		
Sample MS I.D.	92555793042		
Sample MSD I.D.	92555793043		
Spike I.D.	19-033		
MS/MSD Decay Corrected Spike Concentration (pCi/mL)	24.036		
Spike Volume Used in MS (mL)	0.20		
Spike Volume Used in MSD (mL)	0.20		
MS Aliquot (L, g, F)	0.205		
MSD Aliquot (L, g, F)	23.420		
MS Target Conc. (pCi/L, g, F)	0.205		
MSD Target Conc. (pCi/L, g, F)	23.433		
MS Spike Uncertainty (calculated)	0.281		
MSD Spike Uncertainty (calculated)	0.281		
Sample Result Counting Uncertainty (pCi/L, g, F)	0.170		
Sample Matrix Spike Result	0.226		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F)	14.353		
Sample Matrix Spike Duplicate Result	1.493		
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F)	15.923		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F)	1.537		
MS Numerical Performance Indicator	-11.788		
MSD Numerical Performance Indicator	-9.536		
MS Percent Recovery	60.56%		
MSD Percent Recovery	67.23%		
MS Status vs Numerical Indicator	N/A		
MSD Status vs Numerical Indicator	N/A		
MS Status vs Recovery	MS Low****		
MSD Status vs Recovery	MSD Low****		
MS/MSD Upper % Recovery Limits	125%		
MS/MSD Lower % Recovery Limits	75%		

Manually entered MS/MSD

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	92555793041
Sample MS I.D.	92555793042
Sample MSD I.D.	92555793043
Matrix Spike Result Counting Uncertainty (pCi/L, g, F)	14.353
Sample Matrix Spike Duplicate Result	1.493
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F)	15.923
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F)	1.537
Duplicate Numerical Performance Indicator	-1.436
(Based on the Percent Recoveries) MS/MSD Duplicate RPD	10.43%
MS/MSD Duplicate Status vs Numerical Indicator	N/A
MS/MSD Duplicate Status vs RPD	Pass
% RPD Limit	25%

Quality

results reported based on acceptable duplicate RPD

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

****if all other QC criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias for this sample only and may not be applicable to any other samples in this analytical batch.

Quality Control Sample Performance Assessment



Analyst must manually enter all fields highlighted in yellow.

Test: Ra-228
Analyst: JC2
Date: 9/9/2021
Worklist: 62393
Matrix: WT

Method Blank Assessment	
MB Sample ID	2230402
MB concentration:	0.369
MB 2 Sigma CSU:	0.363
MB MDC:	0.748
MB Numerical Performance Indicator:	1.99
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD62393	LCSD62393
Count Date:	9/13/2021
Spike I.D.:	21-029
Decay Corrected Spike Concentration (pCi/mL):	38.238
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.812
Target Conc. (pCi/L, g, F):	4.709
Uncertainty (Calculated):	0.231
Result (pCi/L, g, F):	6.573
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.412
Numerical Performance Indicator:	2.55
Percent Recovery:	139.58%
Status vs Numerical Indicator:	Warning
Upper % Recovery Limits:	Fail High**
Lower % Recovery Limits:	135%
	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCSD/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (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:		7/27/2021	
Sample I.D.:		92555793001	
Sample MS I.D.:		92555793002	
Sample MSD I.D.:		92555793003	
Spike I.D.:		21-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		38.849	
Spike Volume Used in MS (mL):		0.20	
Spike Volume Used in MSD (mL):		0.20	
MS Aliquot (L, g, F):		0.806	
MS Target Conc. (pCi/L, g, F):		9.638	
MSD Aliquot (L, g, F):		0.808	
MSD Target Conc. (pCi/L, g, F):		9.611	
MS Spike Uncertainty (calculated):		0.472	
MSD Spike Uncertainty (calculated):		0.471	
Sample Result:		0.870	
Sample Result 2 Sigma CSU (pCi/L, g, F):		0.598	
Sample Matrix Spike Result:		9.621	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		1.856	
Sample Matrix Spike Duplicate Result:		9.167	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		1.912	
MS Numerical Performance Indicator:		-0.829	
MSD Numerical Performance Indicator:		-1.252	
MS Percent Recovery:		90.79%	
MSD Percent Recovery:		86.33%	
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.:	92555793001
Sample MS I.D.:	92555793002
Sample MSD I.D.:	92555793003
Spike I.D.:	9.621
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.956
Sample Matrix Spike Duplicate Result:	9.167
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.912
Duplicate Numerical Performance Indicator:	0.325
Duplicate Numerical Performance Indicator:	5.04%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
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.

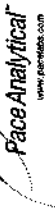
Comments:

*** If all sample results are below MDC, the batch is acceptable, otherwise this batch must be reprocessed due to LCS failure.

LCS NI 4.3 J17 9-15-21

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Quality Control Sample Performance Assessment



Analyt. Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JC2
Date: 9/9/2021
Worklist: 62395
Matrix: W.T.

Method Blank Assessment	
MB Sample ID	2230404
MB concentration:	0.921
MB 2 Sigma CSU:	0.471
MB MDC:	0.830
MB Numerical Performance Indicator:	3.83
MB Status vs Numerical Indicator:	Fail
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD62395	LCSD62395
Count Date:	9/14/2021
Spike I.D.:	21-029
Decay Corrected Spike Concentration (pCi/mL):	38.224
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.839
Target Conc. (pCi/L, g, F):	4.557
Uncertainty (calculated):	0.223
Result (pCi/L, g, F):	4.835
LCSD 2 Sigma CSU (pCi/L, g, F):	1.113
Numerical Performance Indicator:	0.48
Percent Recovery:	106.09%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	155%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	Enter Duplicate sample IDs if other than LCSD/LCSD in the space below.
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample 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:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*The method blank result is below the reporting limit for this analysis and is acceptable. ✓

***If all of the LC-CP criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias for this sample only and may not be applicable to any other samples in this analytical batch.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	8/9/2021
Sample I.D.:	92555793041
Sample MS I.D.:	92555793042
Sample MSD I.D.:	92555793043
Spike I.D.:	21-029
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.682
Spike Volume Used in MS (mL):	0.20
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.806
MS Target Conc. (pCi/L, g, F):	9.601
MSD Aliquot (L, g, F):	0.805
MSD Target Conc. (pCi/L, g, F):	9.606
MS Spike Uncertainty (calculated):	0.470
MSD Spike Uncertainty (calculated):	0.471
Sample Result:	0.897
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.450
Sample Matrix Spike Result:	7.783
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.611
Sample Matrix Spike Duplicate Result:	7.921
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.639
MS Numerical Performance Indicator:	-3.061
MSD Numerical Performance Indicator:	-2.870
MS Percent Recovery:	71.73%
MSD Percent Recovery:	73.13%
MS Status vs Numerical Indicator:	Fail***
MS Status vs Numerical Indicator:	Warning
MS 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.:	92555793041
Sample MS I.D.:	92555793042
Sample MSD I.D.:	92555793043
Spike I.D.:	21-029
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	7.783
Sample Matrix Spike Duplicate Result:	1.611
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	7.921
Duplicate Numerical Performance Indicator:	-0.118
Duplicate Numerical Performance Indicator:	1.93%
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	35%

MS/MSD pass to Recovery criteria 9/24/21

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-41HS	7/28/2021 9:51	Conductivity	466.86	uS/cm
GS-AP-MW-41HS	7/28/2021 9:51	DO	2.93	mg/L
GS-AP-MW-41HS	7/28/2021 9:51	Depth to Water Detail	24.29	ft
GS-AP-MW-41HS	7/28/2021 9:51	Oxidation Reduction Potention	114.12	mv
GS-AP-MW-41HS	7/28/2021 9:51	pH	6.86	SU
GS-AP-MW-41HS	7/28/2021 9:51	Temperature	18.29	C
GS-AP-MW-41HS	7/28/2021 9:51	Turbidity	15.9	NTU
GS-AP-MW-41HS	7/28/2021 9:56	Conductivity	464.31	uS/cm
GS-AP-MW-41HS	7/28/2021 9:56	DO	2.66	mg/L
GS-AP-MW-41HS	7/28/2021 9:56	Depth to Water Detail	24.51	ft
GS-AP-MW-41HS	7/28/2021 9:56	Oxidation Reduction Potention	108.86	mv
GS-AP-MW-41HS	7/28/2021 9:56	pH	6.88	SU
GS-AP-MW-41HS	7/28/2021 9:56	Temperature	18.24	C
GS-AP-MW-41HS	7/28/2021 9:56	Turbidity	8.25	NTU
GS-AP-MW-41HS	7/28/2021 10:01	Conductivity	462.15	uS/cm
GS-AP-MW-41HS	7/28/2021 10:01	DO	2.37	mg/L
GS-AP-MW-41HS	7/28/2021 10:01	Depth to Water Detail	24.69	ft
GS-AP-MW-41HS	7/28/2021 10:01	Oxidation Reduction Potention	107.11	mv
GS-AP-MW-41HS	7/28/2021 10:01	pH	6.87	SU
GS-AP-MW-41HS	7/28/2021 10:01	Temperature	18.2	C
GS-AP-MW-41HS	7/28/2021 10:01	Turbidity	5.27	NTU
GS-AP-MW-41HS	7/28/2021 10:06	Conductivity	460.63	uS/cm
GS-AP-MW-41HS	7/28/2021 10:06	DO	2.12	mg/L
GS-AP-MW-41HS	7/28/2021 10:06	Depth to Water Detail	24.89	ft
GS-AP-MW-41HS	7/28/2021 10:06	Oxidation Reduction Potention	103.32	mv
GS-AP-MW-41HS	7/28/2021 10:06	pH	6.87	SU
GS-AP-MW-41HS	7/28/2021 10:06	Temperature	18.19	C
GS-AP-MW-41HS	7/28/2021 10:06	Turbidity	4.84	NTU
GS-AP-MW-41HS	7/28/2021 10:11	Conductivity	459.78	uS/cm
GS-AP-MW-41HS	7/28/2021 10:11	DO	1.87	mg/L
GS-AP-MW-41HS	7/28/2021 10:11	Depth to Water Detail	24.97	ft
GS-AP-MW-41HS	7/28/2021 10:11	Oxidation Reduction Potention	101.05	mv
GS-AP-MW-41HS	7/28/2021 10:11	pH	6.87	SU
GS-AP-MW-41HS	7/28/2021 10:11	Temperature	18.32	C
GS-AP-MW-41HS	7/28/2021 10:11	Turbidity	3.08	NTU
GS-AP-MW-41HS	7/28/2021 10:16	Conductivity	459.39	uS/cm
GS-AP-MW-41HS	7/28/2021 10:16	DO	1.78	mg/L
GS-AP-MW-41HS	7/28/2021 10:16	Depth to Water Detail	25.46	ft
GS-AP-MW-41HS	7/28/2021 10:16	Oxidation Reduction Potention	98.93	mv
GS-AP-MW-41HS	7/28/2021 10:16	pH	6.87	SU
GS-AP-MW-41HS	7/28/2021 10:16	Temperature	18.39	C
GS-AP-MW-41HS	7/28/2021 10:16	Turbidity	2.01	NTU
GS-AP-MW-41HS	7/28/2021 10:21	Conductivity	457.43	uS/cm

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-41HS	7/28/2021 10:21	DO	1.72	mg/L
GS-AP-MW-41HS	7/28/2021 10:21	Depth to Water Detail	25.6	ft
GS-AP-MW-41HS	7/28/2021 10:21	Oxidation Reduction Potention	97.3	mv
GS-AP-MW-41HS	7/28/2021 10:21	pH	6.87	SU
GS-AP-MW-41HS	7/28/2021 10:21	Temperature	18.28	C
GS-AP-MW-41HS	7/28/2021 10:21	Turbidity	2.28	NTU
GS-AP-MW-41HS	7/28/2021 10:26	Conductivity	457	uS/cm
GS-AP-MW-41HS	7/28/2021 10:26	DO	1.67	mg/L
GS-AP-MW-41HS	7/28/2021 10:26	Depth to Water Detail	25.73	ft
GS-AP-MW-41HS	7/28/2021 10:26	Oxidation Reduction Potention	96.07	mv
GS-AP-MW-41HS	7/28/2021 10:26	pH	6.86	SU
GS-AP-MW-41HS	7/28/2021 10:26	Temperature	18.38	C
GS-AP-MW-41HS	7/28/2021 10:26	Turbidity	2.03	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6D	7/27/2021 11:50	Conductivity	480.12	uS/cm
GS-AP-MW-6D	7/27/2021 11:50	DO	0.15	mg/L
GS-AP-MW-6D	7/27/2021 11:50	Depth to Water Detail	11.49	ft
GS-AP-MW-6D	7/27/2021 11:50	Oxidation Reduction Potention	-80.34	mv
GS-AP-MW-6D	7/27/2021 11:50	pH	6.74	SU
GS-AP-MW-6D	7/27/2021 11:50	Temperature	20.32	C
GS-AP-MW-6D	7/27/2021 11:50	Turbidity	2.96	NTU
GS-AP-MW-6D	7/27/2021 11:55	Conductivity	481.37	uS/cm
GS-AP-MW-6D	7/27/2021 11:55	DO	0.12	mg/L
GS-AP-MW-6D	7/27/2021 11:55	Depth to Water Detail	11.49	ft
GS-AP-MW-6D	7/27/2021 11:55	Oxidation Reduction Potention	-85.68	mv
GS-AP-MW-6D	7/27/2021 11:55	pH	6.73	SU
GS-AP-MW-6D	7/27/2021 11:55	Temperature	20.27	C
GS-AP-MW-6D	7/27/2021 11:55	Turbidity	0.19	NTU
GS-AP-MW-6D	7/27/2021 12:00	Conductivity	483.97	uS/cm
GS-AP-MW-6D	7/27/2021 12:00	DO	0.12	mg/L
GS-AP-MW-6D	7/27/2021 12:00	Depth to Water Detail	11.49	ft
GS-AP-MW-6D	7/27/2021 12:00	Oxidation Reduction Potention	-90.38	mv
GS-AP-MW-6D	7/27/2021 12:00	pH	6.76	SU
GS-AP-MW-6D	7/27/2021 12:00	Temperature	20.18	C
GS-AP-MW-6D	7/27/2021 12:00	Turbidity	0.1	NTU
GS-AP-MW-6D	7/27/2021 12:05	Conductivity	482.69	uS/cm
GS-AP-MW-6D	7/27/2021 12:05	DO	0.11	mg/L
GS-AP-MW-6D	7/27/2021 12:05	Depth to Water Detail	11.49	ft
GS-AP-MW-6D	7/27/2021 12:05	Oxidation Reduction Potention	-94.73	mv
GS-AP-MW-6D	7/27/2021 12:05	pH	6.79	SU
GS-AP-MW-6D	7/27/2021 12:05	Temperature	20.02	C
GS-AP-MW-6D	7/27/2021 12:05	Turbidity	0.03	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6S	7/27/2021 10:37	Conductivity	516.66	uS/cm
GS-AP-MW-6S	7/27/2021 10:37	DO	0.21	mg/L
GS-AP-MW-6S	7/27/2021 10:37	Depth to Water Detail	17.06	ft
GS-AP-MW-6S	7/27/2021 10:37	Oxidation Reduction Potention	121.4	mv
GS-AP-MW-6S	7/27/2021 10:37	pH	6.56	SU
GS-AP-MW-6S	7/27/2021 10:37	Temperature	20.94	C
GS-AP-MW-6S	7/27/2021 10:37	Turbidity	29.2	NTU
GS-AP-MW-6S	7/27/2021 10:42	Conductivity	509.73	uS/cm
GS-AP-MW-6S	7/27/2021 10:42	DO	0.17	mg/L
GS-AP-MW-6S	7/27/2021 10:42	Depth to Water Detail	17.06	ft
GS-AP-MW-6S	7/27/2021 10:42	Oxidation Reduction Potention	92.57	mv
GS-AP-MW-6S	7/27/2021 10:42	pH	6.57	SU
GS-AP-MW-6S	7/27/2021 10:42	Temperature	20.87	C
GS-AP-MW-6S	7/27/2021 10:42	Turbidity	12.4	NTU
GS-AP-MW-6S	7/27/2021 10:47	Conductivity	503.32	uS/cm
GS-AP-MW-6S	7/27/2021 10:47	DO	0.17	mg/L
GS-AP-MW-6S	7/27/2021 10:47	Depth to Water Detail	17.06	ft
GS-AP-MW-6S	7/27/2021 10:47	Oxidation Reduction Potention	67.85	mv
GS-AP-MW-6S	7/27/2021 10:47	pH	6.61	SU
GS-AP-MW-6S	7/27/2021 10:47	Temperature	20.96	C
GS-AP-MW-6S	7/27/2021 10:47	Turbidity	9.9	NTU
GS-AP-MW-6S	7/27/2021 10:52	Conductivity	491.69	uS/cm
GS-AP-MW-6S	7/27/2021 10:52	DO	0.22	mg/L
GS-AP-MW-6S	7/27/2021 10:52	Depth to Water Detail	17.06	ft
GS-AP-MW-6S	7/27/2021 10:52	Oxidation Reduction Potention	48.22	mv
GS-AP-MW-6S	7/27/2021 10:52	pH	6.67	SU
GS-AP-MW-6S	7/27/2021 10:52	Temperature	21.11	C
GS-AP-MW-6S	7/27/2021 10:52	Turbidity	7.43	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-23H	7/27/2021 13:03	Conductivity	751.85	uS/cm
GS-AP-MW-23H	7/27/2021 13:03	DO	0.59	mg/L
GS-AP-MW-23H	7/27/2021 13:03	Depth to Water Detail	28.68	ft
GS-AP-MW-23H	7/27/2021 13:03	Oxidation Reduction Potention	31.16	mv
GS-AP-MW-23H	7/27/2021 13:03	pH	5.49	SU
GS-AP-MW-23H	7/27/2021 13:03	Temperature	19.33	C
GS-AP-MW-23H	7/27/2021 13:03	Turbidity	7.17	NTU
GS-AP-MW-23H	7/27/2021 13:08	Conductivity	752.73	uS/cm
GS-AP-MW-23H	7/27/2021 13:08	DO	1.06	mg/L
GS-AP-MW-23H	7/27/2021 13:08	Depth to Water Detail	28.68	ft
GS-AP-MW-23H	7/27/2021 13:08	Oxidation Reduction Potention	36.67	mv
GS-AP-MW-23H	7/27/2021 13:08	pH	5.49	SU
GS-AP-MW-23H	7/27/2021 13:08	Temperature	19.22	C
GS-AP-MW-23H	7/27/2021 13:08	Turbidity	2.95	NTU
GS-AP-MW-23H	7/27/2021 13:13	Conductivity	759.89	uS/cm
GS-AP-MW-23H	7/27/2021 13:13	DO	1.31	mg/L
GS-AP-MW-23H	7/27/2021 13:13	Depth to Water Detail	28.68	ft
GS-AP-MW-23H	7/27/2021 13:13	Oxidation Reduction Potention	37.78	mv
GS-AP-MW-23H	7/27/2021 13:13	pH	5.53	SU
GS-AP-MW-23H	7/27/2021 13:13	Temperature	19.29	C
GS-AP-MW-23H	7/27/2021 13:13	Turbidity	1.88	NTU
GS-AP-MW-23H	7/27/2021 13:18	Conductivity	757.92	uS/cm
GS-AP-MW-23H	7/27/2021 13:18	DO	1.19	mg/L
GS-AP-MW-23H	7/27/2021 13:18	Depth to Water Detail	28.68	ft
GS-AP-MW-23H	7/27/2021 13:18	Oxidation Reduction Potention	37.74	mv
GS-AP-MW-23H	7/27/2021 13:18	pH	5.56	SU
GS-AP-MW-23H	7/27/2021 13:18	Temperature	19.42	C
GS-AP-MW-23H	7/27/2021 13:18	Turbidity	1.46	NTU
GS-AP-MW-23H	7/27/2021 13:23	Conductivity	763.16	uS/cm
GS-AP-MW-23H	7/27/2021 13:23	DO	0.51	mg/L
GS-AP-MW-23H	7/27/2021 13:23	Depth to Water Detail	28.68	ft
GS-AP-MW-23H	7/27/2021 13:23	Oxidation Reduction Potention	36.86	mv
GS-AP-MW-23H	7/27/2021 13:23	pH	5.58	SU
GS-AP-MW-23H	7/27/2021 13:23	Temperature	18.99	C
GS-AP-MW-23H	7/27/2021 13:23	Turbidity	1.74	NTU
GS-AP-MW-23H	7/27/2021 13:28	Conductivity	761.91	uS/cm
GS-AP-MW-23H	7/27/2021 13:28	DO	0.58	mg/L
GS-AP-MW-23H	7/27/2021 13:28	Depth to Water Detail	28.68	ft
GS-AP-MW-23H	7/27/2021 13:28	Oxidation Reduction Potention	36.19	mv
GS-AP-MW-23H	7/27/2021 13:28	pH	5.62	SU
GS-AP-MW-23H	7/27/2021 13:28	Temperature	19.23	C
GS-AP-MW-23H	7/27/2021 13:28	Turbidity	1.39	NTU
GS-AP-MW-23H	7/27/2021 13:33	Conductivity	761	uS/cm

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-23H	7/27/2021 13:33	DO	0.36	mg/L
GS-AP-MW-23H	7/27/2021 13:33	Depth to Water Detail	28.68	ft
GS-AP-MW-23H	7/27/2021 13:33	Oxidation Reduction Potention	34.2	mv
GS-AP-MW-23H	7/27/2021 13:33	pH	5.65	SU
GS-AP-MW-23H	7/27/2021 13:33	Temperature	19.33	C
GS-AP-MW-23H	7/27/2021 13:33	Turbidity	1.36	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	8/2/2021 12:24	Conductivity	1852.01	uS/cm
GS-AP-MW-6V	8/2/2021 12:24	DO	0.39	mg/L
GS-AP-MW-6V	8/2/2021 12:24	Depth to Water Detail	27.16	ft
GS-AP-MW-6V	8/2/2021 12:24	Oxidation Reduction Potention	-13.59	mv
GS-AP-MW-6V	8/2/2021 12:24	pH	8.54	SU
GS-AP-MW-6V	8/2/2021 12:24	Temperature	18.6	C
GS-AP-MW-6V	8/2/2021 12:24	Turbidity	1.63	NTU
GS-AP-MW-6V	8/2/2021 12:29	Conductivity	1841.22	uS/cm
GS-AP-MW-6V	8/2/2021 12:29	DO	0.41	mg/L
GS-AP-MW-6V	8/2/2021 12:29	Depth to Water Detail	30.11	ft
GS-AP-MW-6V	8/2/2021 12:29	Oxidation Reduction Potention	-30.46	mv
GS-AP-MW-6V	8/2/2021 12:29	pH	8.57	SU
GS-AP-MW-6V	8/2/2021 12:29	Temperature	18.62	C
GS-AP-MW-6V	8/2/2021 12:29	Turbidity	1.48	NTU
GS-AP-MW-6V	8/2/2021 12:34	Conductivity	1829.09	uS/cm
GS-AP-MW-6V	8/2/2021 12:34	DO	0.35	mg/L
GS-AP-MW-6V	8/2/2021 12:34	Depth to Water Detail	33.74	ft
GS-AP-MW-6V	8/2/2021 12:34	Oxidation Reduction Potention	-45.63	mv
GS-AP-MW-6V	8/2/2021 12:34	pH	8.59	SU
GS-AP-MW-6V	8/2/2021 12:34	Temperature	18.51	C
GS-AP-MW-6V	8/2/2021 12:34	Turbidity	1.17	NTU
GS-AP-MW-6V	8/2/2021 12:39	Conductivity	1821.64	uS/cm
GS-AP-MW-6V	8/2/2021 12:39	DO	0.39	mg/L
GS-AP-MW-6V	8/2/2021 12:39	Depth to Water Detail	37.31	ft
GS-AP-MW-6V	8/2/2021 12:39	Oxidation Reduction Potention	-59.5	mv
GS-AP-MW-6V	8/2/2021 12:39	pH	8.6	SU
GS-AP-MW-6V	8/2/2021 12:39	Temperature	18.44	C
GS-AP-MW-6V	8/2/2021 12:39	Turbidity	3.07	NTU
GS-AP-MW-6V	8/2/2021 12:44	Conductivity	1814.5	uS/cm
GS-AP-MW-6V	8/2/2021 12:44	DO	0.39	mg/L
GS-AP-MW-6V	8/2/2021 12:44	Depth to Water Detail	40.68	ft
GS-AP-MW-6V	8/2/2021 12:44	Oxidation Reduction Potention	-72.41	mv
GS-AP-MW-6V	8/2/2021 12:44	pH	8.62	SU
GS-AP-MW-6V	8/2/2021 12:44	Temperature	18.45	C
GS-AP-MW-6V	8/2/2021 12:44	Turbidity	2.49	NTU
GS-AP-MW-6V	8/2/2021 12:49	Conductivity	1785.48	uS/cm
GS-AP-MW-6V	8/2/2021 12:49	DO	0.41	mg/L
GS-AP-MW-6V	8/2/2021 12:49	Depth to Water Detail	43.62	ft
GS-AP-MW-6V	8/2/2021 12:49	Oxidation Reduction Potention	-83.94	mv
GS-AP-MW-6V	8/2/2021 12:49	pH	8.63	SU
GS-AP-MW-6V	8/2/2021 12:49	Temperature	18.37	C
GS-AP-MW-6V	8/2/2021 12:49	Turbidity	3.19	NTU
GS-AP-MW-6V	8/2/2021 12:54	Conductivity	1627.27	uS/cm

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	8/2/2021 12:54	DO	0.41	mg/L
GS-AP-MW-6V	8/2/2021 12:54	Depth to Water Detail	47.11	ft
GS-AP-MW-6V	8/2/2021 12:54	Oxidation Reduction Potention	-94	mv
GS-AP-MW-6V	8/2/2021 12:54	pH	8.6	SU
GS-AP-MW-6V	8/2/2021 12:54	Temperature	18.38	C
GS-AP-MW-6V	8/2/2021 12:54	Turbidity	2.53	NTU
GS-AP-MW-6V	8/2/2021 12:59	Conductivity	1517.85	uS/cm
GS-AP-MW-6V	8/2/2021 12:59	DO	0.5	mg/L
GS-AP-MW-6V	8/2/2021 12:59	Depth to Water Detail	50.42	ft
GS-AP-MW-6V	8/2/2021 12:59	Oxidation Reduction Potention	-98.46	mv
GS-AP-MW-6V	8/2/2021 12:59	pH	8.57	SU
GS-AP-MW-6V	8/2/2021 12:59	Temperature	18.36	C
GS-AP-MW-6V	8/2/2021 12:59	Turbidity	1.86	NTU
GS-AP-MW-6V	8/2/2021 13:04	Conductivity	1500.8	uS/cm
GS-AP-MW-6V	8/2/2021 13:04	DO	0.48	mg/L
GS-AP-MW-6V	8/2/2021 13:04	Depth to Water Detail	54.03	ft
GS-AP-MW-6V	8/2/2021 13:04	Oxidation Reduction Potention	-101.32	mv
GS-AP-MW-6V	8/2/2021 13:04	pH	8.55	SU
GS-AP-MW-6V	8/2/2021 13:04	Temperature	18.3	C
GS-AP-MW-6V	8/2/2021 13:04	Turbidity	2.16	NTU
GS-AP-MW-6V	8/2/2021 13:09	Conductivity	1480.18	uS/cm
GS-AP-MW-6V	8/2/2021 13:09	DO	0.57	mg/L
GS-AP-MW-6V	8/2/2021 13:09	Depth to Water Detail	56.63	ft
GS-AP-MW-6V	8/2/2021 13:09	Oxidation Reduction Potention	-104.29	mv
GS-AP-MW-6V	8/2/2021 13:09	pH	8.55	SU
GS-AP-MW-6V	8/2/2021 13:09	Temperature	18.26	C
GS-AP-MW-6V	8/2/2021 13:09	Turbidity	2.34	NTU
GS-AP-MW-6V	8/2/2021 13:14	Conductivity	1478.9	uS/cm
GS-AP-MW-6V	8/2/2021 13:14	DO	0.56	mg/L
GS-AP-MW-6V	8/2/2021 13:14	Depth to Water Detail	59.24	ft
GS-AP-MW-6V	8/2/2021 13:14	Oxidation Reduction Potention	-106.95	mv
GS-AP-MW-6V	8/2/2021 13:14	pH	8.55	SU
GS-AP-MW-6V	8/2/2021 13:14	Temperature	18.27	C
GS-AP-MW-6V	8/2/2021 13:14	Turbidity	1.93	NTU
GS-AP-MW-6V	8/2/2021 13:19	Conductivity	1469.28	uS/cm
GS-AP-MW-6V	8/2/2021 13:19	DO	0.55	mg/L
GS-AP-MW-6V	8/2/2021 13:19	Depth to Water Detail	63.21	ft
GS-AP-MW-6V	8/2/2021 13:19	Oxidation Reduction Potention	-109.46	mv
GS-AP-MW-6V	8/2/2021 13:19	pH	8.56	SU
GS-AP-MW-6V	8/2/2021 13:19	Temperature	18.24	C
GS-AP-MW-6V	8/2/2021 13:19	Turbidity	2.48	NTU
GS-AP-MW-6V	8/2/2021 13:24	Conductivity	1463.19	uS/cm
GS-AP-MW-6V	8/2/2021 13:24	DO	0.51	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	8/2/2021 13:24	Depth to Water Detail	65.82	ft
GS-AP-MW-6V	8/2/2021 13:24	Oxidation Reduction Potention	-111.91	mv
GS-AP-MW-6V	8/2/2021 13:24	pH	8.56	SU
GS-AP-MW-6V	8/2/2021 13:24	Temperature	18.27	C
GS-AP-MW-6V	8/2/2021 13:24	Turbidity	5.44	NTU
GS-AP-MW-6V	8/2/2021 13:29	Conductivity	1467.73	uS/cm
GS-AP-MW-6V	8/2/2021 13:29	DO	0.53	mg/L
GS-AP-MW-6V	8/2/2021 13:29	Depth to Water Detail	69.37	ft
GS-AP-MW-6V	8/2/2021 13:29	Oxidation Reduction Potention	-113.64	mv
GS-AP-MW-6V	8/2/2021 13:29	pH	8.55	SU
GS-AP-MW-6V	8/2/2021 13:29	Temperature	18.26	C
GS-AP-MW-6V	8/2/2021 13:29	Turbidity	1.97	NTU
GS-AP-MW-6V	8/2/2021 13:34	Conductivity	1461.23	uS/cm
GS-AP-MW-6V	8/2/2021 13:34	DO	0.58	mg/L
GS-AP-MW-6V	8/2/2021 13:34	Depth to Water Detail	71.68	ft
GS-AP-MW-6V	8/2/2021 13:34	Oxidation Reduction Potention	-115.97	mv
GS-AP-MW-6V	8/2/2021 13:34	pH	8.56	SU
GS-AP-MW-6V	8/2/2021 13:34	Temperature	18.19	C
GS-AP-MW-6V	8/2/2021 13:34	Turbidity	2.66	NTU
GS-AP-MW-6V	8/2/2021 13:39	Conductivity	1461.9	uS/cm
GS-AP-MW-6V	8/2/2021 13:39	DO	0.51	mg/L
GS-AP-MW-6V	8/2/2021 13:39	Depth to Water Detail	74.7	ft
GS-AP-MW-6V	8/2/2021 13:39	Oxidation Reduction Potention	-117.95	mv
GS-AP-MW-6V	8/2/2021 13:39	pH	8.56	SU
GS-AP-MW-6V	8/2/2021 13:39	Temperature	18.13	C
GS-AP-MW-6V	8/2/2021 13:39	Turbidity	3.04	NTU
GS-AP-MW-6V	8/2/2021 13:44	Conductivity	1464.08	uS/cm
GS-AP-MW-6V	8/2/2021 13:44	DO	0.54	mg/L
GS-AP-MW-6V	8/2/2021 13:44	Depth to Water Detail	77.98	ft
GS-AP-MW-6V	8/2/2021 13:44	Oxidation Reduction Potention	-119.72	mv
GS-AP-MW-6V	8/2/2021 13:44	pH	8.56	SU
GS-AP-MW-6V	8/2/2021 13:44	Temperature	18.17	C
GS-AP-MW-6V	8/2/2021 13:44	Turbidity	2.21	NTU
GS-AP-MW-6V	8/2/2021 13:49	Conductivity	1468.96	uS/cm
GS-AP-MW-6V	8/2/2021 13:49	DO	1.37	mg/L
GS-AP-MW-6V	8/2/2021 13:49	Depth to Water Detail	78.26	ft
GS-AP-MW-6V	8/2/2021 13:49	Oxidation Reduction Potention	-119.69	mv
GS-AP-MW-6V	8/2/2021 13:49	pH	8.57	SU
GS-AP-MW-6V	8/2/2021 13:49	Temperature	19.75	C
GS-AP-MW-6V	8/2/2021 13:49	Turbidity	2.63	NTU
GS-AP-MW-6V	8/2/2021 13:54	Conductivity	1444.21	uS/cm
GS-AP-MW-6V	8/2/2021 13:54	DO	1.66	mg/L
GS-AP-MW-6V	8/2/2021 13:54	Depth to Water Detail	78.39	ft

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-6V	8/2/2021 13:54	Oxidation Reduction Potention	-121.31	mv
GS-AP-MW-6V	8/2/2021 13:54	pH	8.74	SU
GS-AP-MW-6V	8/2/2021 13:54	Temperature	19.88	C
GS-AP-MW-6V	8/2/2021 13:54	Turbidity	5.12	NTU
GS-AP-MW-6V	8/2/2021 13:59	Conductivity	1457.86	uS/cm
GS-AP-MW-6V	8/2/2021 13:59	DO	1.53	mg/L
GS-AP-MW-6V	8/2/2021 13:59	Depth to Water Detail	78.65	ft
GS-AP-MW-6V	8/2/2021 13:59	Oxidation Reduction Potention	-122.97	mv
GS-AP-MW-6V	8/2/2021 13:59	pH	8.79	SU
GS-AP-MW-6V	8/2/2021 13:59	Temperature	19.87	C
GS-AP-MW-6V	8/2/2021 13:59	Turbidity	7.08	NTU
GS-AP-MW-6V	8/2/2021 14:04	Conductivity	1462.93	uS/cm
GS-AP-MW-6V	8/2/2021 14:04	DO	1.6	mg/L
GS-AP-MW-6V	8/2/2021 14:04	Depth to Water Detail	78.96	ft
GS-AP-MW-6V	8/2/2021 14:04	Oxidation Reduction Potention	-120.37	mv
GS-AP-MW-6V	8/2/2021 14:04	pH	8.76	SU
GS-AP-MW-6V	8/2/2021 14:04	Temperature	19.77	C
GS-AP-MW-6V	8/2/2021 14:04	Turbidity	3.12	NTU
GS-AP-MW-6V	8/2/2021 14:09	Conductivity	1468.14	uS/cm
GS-AP-MW-6V	8/2/2021 14:09	DO	1.66	mg/L
GS-AP-MW-6V	8/2/2021 14:09	Depth to Water Detail	79.18	ft
GS-AP-MW-6V	8/2/2021 14:09	Oxidation Reduction Potention	-118.38	mv
GS-AP-MW-6V	8/2/2021 14:09	pH	8.76	SU
GS-AP-MW-6V	8/2/2021 14:09	Temperature	19.81	C
GS-AP-MW-6V	8/2/2021 14:09	Turbidity	2.65	NTU
GS-AP-MW-6V	8/2/2021 14:14	Conductivity	1462.34	uS/cm
GS-AP-MW-6V	8/2/2021 14:14	DO	1.75	mg/L
GS-AP-MW-6V	8/2/2021 14:14	Depth to Water Detail	79.32	ft
GS-AP-MW-6V	8/2/2021 14:14	Oxidation Reduction Potention	-116.68	mv
GS-AP-MW-6V	8/2/2021 14:14	pH	8.76	SU
GS-AP-MW-6V	8/2/2021 14:14	Temperature	19.75	C
GS-AP-MW-6V	8/2/2021 14:14	Turbidity	2.52	NTU
GS-AP-MW-6V	8/2/2021 14:19	Conductivity	1463.17	uS/cm
GS-AP-MW-6V	8/2/2021 14:19	DO	1.68	mg/L
GS-AP-MW-6V	8/2/2021 14:19	Depth to Water Detail	79.46	ft
GS-AP-MW-6V	8/2/2021 14:19	Oxidation Reduction Potention	-114.14	mv
GS-AP-MW-6V	8/2/2021 14:19	pH	8.76	SU
GS-AP-MW-6V	8/2/2021 14:19	Temperature	19.71	C
GS-AP-MW-6V	8/2/2021 14:19	Turbidity	2.32	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-3	8/3/2021 10:02	Conductivity	477.44	uS/cm
GS-AP-MW-3	8/3/2021 10:02	DO	1.19	mg/L
GS-AP-MW-3	8/3/2021 10:02	Depth to Water Detail	141.26	ft
GS-AP-MW-3	8/3/2021 10:02	Oxidation Reduction Potention	27.24	mv
GS-AP-MW-3	8/3/2021 10:02	pH	8.2	SU
GS-AP-MW-3	8/3/2021 10:02	Temperature	18.29	C
GS-AP-MW-3	8/3/2021 10:02	Turbidity	4.05	NTU
GS-AP-MW-3	8/3/2021 10:07	Conductivity	458.48	uS/cm
GS-AP-MW-3	8/3/2021 10:07	DO	0.64	mg/L
GS-AP-MW-3	8/3/2021 10:07	Depth to Water Detail	142.74	ft
GS-AP-MW-3	8/3/2021 10:07	Oxidation Reduction Potention	27.24	mv
GS-AP-MW-3	8/3/2021 10:07	pH	8.22	SU
GS-AP-MW-3	8/3/2021 10:07	Temperature	18.27	C
GS-AP-MW-3	8/3/2021 10:07	Turbidity	2.29	NTU
GS-AP-MW-3	8/3/2021 10:12	Conductivity	449.21	uS/cm
GS-AP-MW-3	8/3/2021 10:12	DO	0.46	mg/L
GS-AP-MW-3	8/3/2021 10:12	Depth to Water Detail	143.86	ft
GS-AP-MW-3	8/3/2021 10:12	Oxidation Reduction Potention	26.51	mv
GS-AP-MW-3	8/3/2021 10:12	pH	8.26	SU
GS-AP-MW-3	8/3/2021 10:12	Temperature	18.29	C
GS-AP-MW-3	8/3/2021 10:12	Turbidity	1.34	NTU
GS-AP-MW-3	8/3/2021 10:17	Conductivity	446.07	uS/cm
GS-AP-MW-3	8/3/2021 10:17	DO	0.44	mg/L
GS-AP-MW-3	8/3/2021 10:17	Depth to Water Detail	144.79	ft
GS-AP-MW-3	8/3/2021 10:17	Oxidation Reduction Potention	24.97	mv
GS-AP-MW-3	8/3/2021 10:17	pH	8.29	SU
GS-AP-MW-3	8/3/2021 10:17	Temperature	18.35	C
GS-AP-MW-3	8/3/2021 10:17	Turbidity	0.91	NTU
GS-AP-MW-3	8/3/2021 10:22	Conductivity	443.7	uS/cm
GS-AP-MW-3	8/3/2021 10:22	DO	0.44	mg/L
GS-AP-MW-3	8/3/2021 10:22	Depth to Water Detail	145.65	ft
GS-AP-MW-3	8/3/2021 10:22	Oxidation Reduction Potention	23.26	mv
GS-AP-MW-3	8/3/2021 10:22	pH	8.31	SU
GS-AP-MW-3	8/3/2021 10:22	Temperature	18.38	C
GS-AP-MW-3	8/3/2021 10:22	Turbidity	0.97	NTU
GS-AP-MW-3	8/3/2021 10:27	Conductivity	444.31	uS/cm
GS-AP-MW-3	8/3/2021 10:27	DO	0.48	mg/L
GS-AP-MW-3	8/3/2021 10:27	Depth to Water Detail	146.61	ft
GS-AP-MW-3	8/3/2021 10:27	Oxidation Reduction Potention	21.94	mv
GS-AP-MW-3	8/3/2021 10:27	pH	8.3	SU
GS-AP-MW-3	8/3/2021 10:27	Temperature	18.35	C
GS-AP-MW-3	8/3/2021 10:27	Turbidity	0.64	NTU
GS-AP-MW-3	8/3/2021 10:32	Conductivity	446.07	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-3	8/3/2021 10:32	DO	0.49	mg/L
GS-AP-MW-3	8/3/2021 10:32	Depth to Water Detail	147.29	ft
GS-AP-MW-3	8/3/2021 10:32	Oxidation Reduction Potention	16.94	mv
GS-AP-MW-3	8/3/2021 10:32	pH	8.32	SU
GS-AP-MW-3	8/3/2021 10:32	Temperature	18.59	C
GS-AP-MW-3	8/3/2021 10:32	Turbidity	0.62	NTU
GS-AP-MW-3	8/3/2021 10:37	Conductivity	449.47	uS/cm
GS-AP-MW-3	8/3/2021 10:37	DO	0.75	mg/L
GS-AP-MW-3	8/3/2021 10:37	Depth to Water Detail	147.81	ft
GS-AP-MW-3	8/3/2021 10:37	Oxidation Reduction Potention	11.56	mv
GS-AP-MW-3	8/3/2021 10:37	pH	8.31	SU
GS-AP-MW-3	8/3/2021 10:37	Temperature	18.71	C
GS-AP-MW-3	8/3/2021 10:37	Turbidity	1.09	NTU
GS-AP-MW-3	8/3/2021 10:42	Conductivity	455.26	uS/cm
GS-AP-MW-3	8/3/2021 10:42	DO	0.74	mg/L
GS-AP-MW-3	8/3/2021 10:42	Depth to Water Detail	148.29	ft
GS-AP-MW-3	8/3/2021 10:42	Oxidation Reduction Potention	3.27	mv
GS-AP-MW-3	8/3/2021 10:42	pH	8.27	SU
GS-AP-MW-3	8/3/2021 10:42	Temperature	18.71	C
GS-AP-MW-3	8/3/2021 10:42	Turbidity	0.93	NTU
GS-AP-MW-3	8/3/2021 10:47	Conductivity	463.16	uS/cm
GS-AP-MW-3	8/3/2021 10:47	DO	0.71	mg/L
GS-AP-MW-3	8/3/2021 10:47	Depth to Water Detail	148.81	ft
GS-AP-MW-3	8/3/2021 10:47	Oxidation Reduction Potention	-13.05	mv
GS-AP-MW-3	8/3/2021 10:47	pH	8.2	SU
GS-AP-MW-3	8/3/2021 10:47	Temperature	18.79	C
GS-AP-MW-3	8/3/2021 10:47	Turbidity	1.29	NTU
GS-AP-MW-3	8/3/2021 10:52	Conductivity	474.06	uS/cm
GS-AP-MW-3	8/3/2021 10:52	DO	0.73	mg/L
GS-AP-MW-3	8/3/2021 10:52	Depth to Water Detail	149.18	ft
GS-AP-MW-3	8/3/2021 10:52	Oxidation Reduction Potention	-36.17	mv
GS-AP-MW-3	8/3/2021 10:52	pH	8.06	SU
GS-AP-MW-3	8/3/2021 10:52	Temperature	18.74	C
GS-AP-MW-3	8/3/2021 10:52	Turbidity	5.11	NTU
GS-AP-MW-3	8/3/2021 10:57	Conductivity	483.63	uS/cm
GS-AP-MW-3	8/3/2021 10:57	DO	0.7	mg/L
GS-AP-MW-3	8/3/2021 10:57	Depth to Water Detail	149.49	ft
GS-AP-MW-3	8/3/2021 10:57	Oxidation Reduction Potention	-69.42	mv
GS-AP-MW-3	8/3/2021 10:57	pH	8.01	SU
GS-AP-MW-3	8/3/2021 10:57	Temperature	18.77	C
GS-AP-MW-3	8/3/2021 10:57	Turbidity	1.24	NTU
GS-AP-MW-3	8/3/2021 11:02	Conductivity	494.76	uS/cm
GS-AP-MW-3	8/3/2021 11:02	DO	0.68	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-3	8/3/2021 11:02	Depth to Water Detail	149.76	ft
GS-AP-MW-3	8/3/2021 11:02	Oxidation Reduction Potention	-97.05	mv
GS-AP-MW-3	8/3/2021 11:02	pH	7.96	SU
GS-AP-MW-3	8/3/2021 11:02	Temperature	18.79	C
GS-AP-MW-3	8/3/2021 11:02	Turbidity	1.28	NTU
GS-AP-MW-3	8/3/2021 11:07	Conductivity	505.66	uS/cm
GS-AP-MW-3	8/3/2021 11:07	DO	0.71	mg/L
GS-AP-MW-3	8/3/2021 11:07	Depth to Water Detail	149.89	ft
GS-AP-MW-3	8/3/2021 11:07	Oxidation Reduction Potention	-113.72	mv
GS-AP-MW-3	8/3/2021 11:07	pH	7.88	SU
GS-AP-MW-3	8/3/2021 11:07	Temperature	19.05	C
GS-AP-MW-3	8/3/2021 11:07	Turbidity	1.23	NTU
GS-AP-MW-3	8/3/2021 11:12	Conductivity	516.34	uS/cm
GS-AP-MW-3	8/3/2021 11:12	DO	0.69	mg/L
GS-AP-MW-3	8/3/2021 11:12	Depth to Water Detail	149.99	ft
GS-AP-MW-3	8/3/2021 11:12	Oxidation Reduction Potention	-123.23	mv
GS-AP-MW-3	8/3/2021 11:12	pH	7.82	SU
GS-AP-MW-3	8/3/2021 11:12	Temperature	19.04	C
GS-AP-MW-3	8/3/2021 11:12	Turbidity	1.77	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-41HD	8/3/2021 12:45	Conductivity	474.88	uS/cm
GS-AP-MW-41HD	8/3/2021 12:45	DO	0.23	mg/L
GS-AP-MW-41HD	8/3/2021 12:45	Depth to Water Detail	4.91	ft
GS-AP-MW-41HD	8/3/2021 12:45	Oxidation Reduction Potention	-31.23	mv
GS-AP-MW-41HD	8/3/2021 12:45	pH	6.71	SU
GS-AP-MW-41HD	8/3/2021 12:45	Temperature	18.99	C
GS-AP-MW-41HD	8/3/2021 12:45	Turbidity	0.38	NTU
GS-AP-MW-41HD	8/3/2021 12:50	Conductivity	472.99	uS/cm
GS-AP-MW-41HD	8/3/2021 12:50	DO	0.19	mg/L
GS-AP-MW-41HD	8/3/2021 12:50	Depth to Water Detail	5.79	ft
GS-AP-MW-41HD	8/3/2021 12:50	Oxidation Reduction Potention	-30.14	mv
GS-AP-MW-41HD	8/3/2021 12:50	pH	6.79	SU
GS-AP-MW-41HD	8/3/2021 12:50	Temperature	18.69	C
GS-AP-MW-41HD	8/3/2021 12:50	Turbidity	0.16	NTU
GS-AP-MW-41HD	8/3/2021 12:55	Conductivity	471.17	uS/cm
GS-AP-MW-41HD	8/3/2021 12:55	DO	0.18	mg/L
GS-AP-MW-41HD	8/3/2021 12:55	Depth to Water Detail	6.11	ft
GS-AP-MW-41HD	8/3/2021 12:55	Oxidation Reduction Potention	-30.63	mv
GS-AP-MW-41HD	8/3/2021 12:55	pH	6.89	SU
GS-AP-MW-41HD	8/3/2021 12:55	Temperature	18.53	C
GS-AP-MW-41HD	8/3/2021 12:55	Turbidity	0.17	NTU
GS-AP-MW-41HD	8/3/2021 13:00	Conductivity	472.22	uS/cm
GS-AP-MW-41HD	8/3/2021 13:00	DO	0.18	mg/L
GS-AP-MW-41HD	8/3/2021 13:00	Depth to Water Detail	6.29	ft
GS-AP-MW-41HD	8/3/2021 13:00	Oxidation Reduction Potention	-30.78	mv
GS-AP-MW-41HD	8/3/2021 13:00	pH	6.94	SU
GS-AP-MW-41HD	8/3/2021 13:00	Temperature	18.52	C
GS-AP-MW-41HD	8/3/2021 13:00	Turbidity	0.03	NTU
GS-AP-MW-41HD	8/3/2021 13:05	Conductivity	471.65	uS/cm
GS-AP-MW-41HD	8/3/2021 13:05	DO	0.17	mg/L
GS-AP-MW-41HD	8/3/2021 13:05	Depth to Water Detail	6.36	ft
GS-AP-MW-41HD	8/3/2021 13:05	Oxidation Reduction Potention	-31.07	mv
GS-AP-MW-41HD	8/3/2021 13:05	pH	6.97	SU
GS-AP-MW-41HD	8/3/2021 13:05	Temperature	18.4	C
GS-AP-MW-41HD	8/3/2021 13:05	Turbidity	0.05	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-24H	8/3/2021 14:19	Conductivity	407.95	uS/cm
GS-AP-MW-24H	8/3/2021 14:19	DO	0.17	mg/L
GS-AP-MW-24H	8/3/2021 14:19	Depth to Water Detail	6.62	ft
GS-AP-MW-24H	8/3/2021 14:19	Oxidation Reduction Potention	-19.74	mv
GS-AP-MW-24H	8/3/2021 14:19	pH	6.98	SU
GS-AP-MW-24H	8/3/2021 14:19	Temperature	19.4	C
GS-AP-MW-24H	8/3/2021 14:19	Turbidity	4.76	NTU
GS-AP-MW-24H	8/3/2021 14:24	Conductivity	409.07	uS/cm
GS-AP-MW-24H	8/3/2021 14:24	DO	0.14	mg/L
GS-AP-MW-24H	8/3/2021 14:24	Depth to Water Detail	6.71	ft
GS-AP-MW-24H	8/3/2021 14:24	Oxidation Reduction Potention	-24.98	mv
GS-AP-MW-24H	8/3/2021 14:24	pH	6.98	SU
GS-AP-MW-24H	8/3/2021 14:24	Temperature	19.34	C
GS-AP-MW-24H	8/3/2021 14:24	Turbidity	2.9	NTU
GS-AP-MW-24H	8/3/2021 14:29	Conductivity	409.03	uS/cm
GS-AP-MW-24H	8/3/2021 14:29	DO	0.13	mg/L
GS-AP-MW-24H	8/3/2021 14:29	Depth to Water Detail	6.8	ft
GS-AP-MW-24H	8/3/2021 14:29	Oxidation Reduction Potention	-27.95	mv
GS-AP-MW-24H	8/3/2021 14:29	pH	6.96	SU
GS-AP-MW-24H	8/3/2021 14:29	Temperature	19.11	C
GS-AP-MW-24H	8/3/2021 14:29	Turbidity	2.08	NTU
GS-AP-MW-24H	8/3/2021 14:34	Conductivity	410.25	uS/cm
GS-AP-MW-24H	8/3/2021 14:34	DO	0.13	mg/L
GS-AP-MW-24H	8/3/2021 14:34	Depth to Water Detail	6.83	ft
GS-AP-MW-24H	8/3/2021 14:34	Oxidation Reduction Potention	-30.49	mv
GS-AP-MW-24H	8/3/2021 14:34	pH	6.94	SU
GS-AP-MW-24H	8/3/2021 14:34	Temperature	19.09	C
GS-AP-MW-24H	8/3/2021 14:34	Turbidity	2.23	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-38H	8/4/2021 10:26	Conductivity	1333.66	uS/cm
GS-AP-MW-38H	8/4/2021 10:26	DO	0.72	mg/L
GS-AP-MW-38H	8/4/2021 10:26	Depth to Water Detail	47.29	ft
GS-AP-MW-38H	8/4/2021 10:26	Oxidation Reduction Potention	-30.47	mv
GS-AP-MW-38H	8/4/2021 10:26	pH	7.66	SU
GS-AP-MW-38H	8/4/2021 10:26	Temperature	19.39	C
GS-AP-MW-38H	8/4/2021 10:26	Turbidity	1.84	NTU
GS-AP-MW-38H	8/4/2021 10:31	Conductivity	1150.58	uS/cm
GS-AP-MW-38H	8/4/2021 10:31	DO	0.64	mg/L
GS-AP-MW-38H	8/4/2021 10:31	Depth to Water Detail	47.34	ft
GS-AP-MW-38H	8/4/2021 10:31	Oxidation Reduction Potention	-47.97	mv
GS-AP-MW-38H	8/4/2021 10:31	pH	7.68	SU
GS-AP-MW-38H	8/4/2021 10:31	Temperature	19.41	C
GS-AP-MW-38H	8/4/2021 10:31	Turbidity	2.12	NTU
GS-AP-MW-38H	8/4/2021 10:36	Conductivity	970.92	uS/cm
GS-AP-MW-38H	8/4/2021 10:36	DO	0.62	mg/L
GS-AP-MW-38H	8/4/2021 10:36	Depth to Water Detail	47.42	ft
GS-AP-MW-38H	8/4/2021 10:36	Oxidation Reduction Potention	-56.8	mv
GS-AP-MW-38H	8/4/2021 10:36	pH	7.74	SU
GS-AP-MW-38H	8/4/2021 10:36	Temperature	19.49	C
GS-AP-MW-38H	8/4/2021 10:36	Turbidity	1.33	NTU
GS-AP-MW-38H	8/4/2021 10:41	Conductivity	873	uS/cm
GS-AP-MW-38H	8/4/2021 10:41	DO	0.58	mg/L
GS-AP-MW-38H	8/4/2021 10:41	Depth to Water Detail	47.44	ft
GS-AP-MW-38H	8/4/2021 10:41	Oxidation Reduction Potention	-58.93	mv
GS-AP-MW-38H	8/4/2021 10:41	pH	7.74	SU
GS-AP-MW-38H	8/4/2021 10:41	Temperature	19.42	C
GS-AP-MW-38H	8/4/2021 10:41	Turbidity	1.5	NTU
GS-AP-MW-38H	8/4/2021 10:46	Conductivity	796.25	uS/cm
GS-AP-MW-38H	8/4/2021 10:46	DO	0.56	mg/L
GS-AP-MW-38H	8/4/2021 10:46	Depth to Water Detail	47.44	ft
GS-AP-MW-38H	8/4/2021 10:46	Oxidation Reduction Potention	-62.1	mv
GS-AP-MW-38H	8/4/2021 10:46	pH	7.76	SU
GS-AP-MW-38H	8/4/2021 10:46	Temperature	19.44	C
GS-AP-MW-38H	8/4/2021 10:46	Turbidity	1.06	NTU
GS-AP-MW-38H	8/4/2021 10:51	Conductivity	767.37	uS/cm
GS-AP-MW-38H	8/4/2021 10:51	DO	0.56	mg/L
GS-AP-MW-38H	8/4/2021 10:51	Depth to Water Detail	47.44	ft
GS-AP-MW-38H	8/4/2021 10:51	Oxidation Reduction Potention	-63.8	mv
GS-AP-MW-38H	8/4/2021 10:51	pH	7.77	SU
GS-AP-MW-38H	8/4/2021 10:51	Temperature	19.46	C
GS-AP-MW-38H	8/4/2021 10:51	Turbidity	1.64	NTU
GS-AP-MW-38H	8/4/2021 10:56	Conductivity	733.22	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-38H	8/4/2021 10:56	DO	0.54	mg/L
GS-AP-MW-38H	8/4/2021 10:56	Depth to Water Detail	47.44	ft
GS-AP-MW-38H	8/4/2021 10:56	Oxidation Reduction Potention	-65.31	mv
GS-AP-MW-38H	8/4/2021 10:56	pH	7.77	SU
GS-AP-MW-38H	8/4/2021 10:56	Temperature	19.64	C
GS-AP-MW-38H	8/4/2021 10:56	Turbidity	1.07	NTU
GS-AP-MW-38H	8/4/2021 11:01	Conductivity	698.7	uS/cm
GS-AP-MW-38H	8/4/2021 11:01	DO	0.47	mg/L
GS-AP-MW-38H	8/4/2021 11:01	Depth to Water Detail	47.44	ft
GS-AP-MW-38H	8/4/2021 11:01	Oxidation Reduction Potention	-67.63	mv
GS-AP-MW-38H	8/4/2021 11:01	pH	7.79	SU
GS-AP-MW-38H	8/4/2021 11:01	Temperature	19.63	C
GS-AP-MW-38H	8/4/2021 11:01	Turbidity	0.64	NTU
GS-AP-MW-38H	8/4/2021 11:06	Conductivity	705.45	uS/cm
GS-AP-MW-38H	8/4/2021 11:06	DO	0.45	mg/L
GS-AP-MW-38H	8/4/2021 11:06	Depth to Water Detail	47.44	ft
GS-AP-MW-38H	8/4/2021 11:06	Oxidation Reduction Potention	-68.38	mv
GS-AP-MW-38H	8/4/2021 11:06	pH	7.77	SU
GS-AP-MW-38H	8/4/2021 11:06	Temperature	19.66	C
GS-AP-MW-38H	8/4/2021 11:06	Turbidity	1.23	NTU
GS-AP-MW-38H	8/4/2021 11:11	Conductivity	689.92	uS/cm
GS-AP-MW-38H	8/4/2021 11:11	DO	0.43	mg/L
GS-AP-MW-38H	8/4/2021 11:11	Depth to Water Detail	47.44	ft
GS-AP-MW-38H	8/4/2021 11:11	Oxidation Reduction Potention	-69.91	mv
GS-AP-MW-38H	8/4/2021 11:11	pH	7.75	SU
GS-AP-MW-38H	8/4/2021 11:11	Temperature	19.7	C
GS-AP-MW-38H	8/4/2021 11:11	Turbidity	0.87	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-42H	8/4/2021 12:56	Conductivity	981.86	uS/cm
GS-AP-MW-42H	8/4/2021 12:56	DO	0.22	mg/L
GS-AP-MW-42H	8/4/2021 12:56	Depth to Water Detail	52.86	ft
GS-AP-MW-42H	8/4/2021 12:56	Oxidation Reduction Potention	12.78	mv
GS-AP-MW-42H	8/4/2021 12:56	pH	6.26	SU
GS-AP-MW-42H	8/4/2021 12:56	Temperature	18.5	C
GS-AP-MW-42H	8/4/2021 12:56	Turbidity	150	NTU
GS-AP-MW-42H	8/4/2021 13:01	Conductivity	976	uS/cm
GS-AP-MW-42H	8/4/2021 13:01	DO	0.17	mg/L
GS-AP-MW-42H	8/4/2021 13:01	Depth to Water Detail	52.89	ft
GS-AP-MW-42H	8/4/2021 13:01	Oxidation Reduction Potention	16.92	mv
GS-AP-MW-42H	8/4/2021 13:01	pH	6.24	SU
GS-AP-MW-42H	8/4/2021 13:01	Temperature	18.56	C
GS-AP-MW-42H	8/4/2021 13:01	Turbidity	94.6	NTU
GS-AP-MW-42H	8/4/2021 13:06	Conductivity	974.36	uS/cm
GS-AP-MW-42H	8/4/2021 13:06	DO	0.16	mg/L
GS-AP-MW-42H	8/4/2021 13:06	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:06	Oxidation Reduction Potention	17.39	mv
GS-AP-MW-42H	8/4/2021 13:06	pH	6.25	SU
GS-AP-MW-42H	8/4/2021 13:06	Temperature	18.56	C
GS-AP-MW-42H	8/4/2021 13:06	Turbidity	80.8	NTU
GS-AP-MW-42H	8/4/2021 13:11	Conductivity	974.96	uS/cm
GS-AP-MW-42H	8/4/2021 13:11	DO	0.15	mg/L
GS-AP-MW-42H	8/4/2021 13:11	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:11	Oxidation Reduction Potention	16.95	mv
GS-AP-MW-42H	8/4/2021 13:11	pH	6.27	SU
GS-AP-MW-42H	8/4/2021 13:11	Temperature	18.51	C
GS-AP-MW-42H	8/4/2021 13:11	Turbidity	51.6	NTU
GS-AP-MW-42H	8/4/2021 13:16	Conductivity	981.25	uS/cm
GS-AP-MW-42H	8/4/2021 13:16	DO	0.15	mg/L
GS-AP-MW-42H	8/4/2021 13:16	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:16	Oxidation Reduction Potention	15.5	mv
GS-AP-MW-42H	8/4/2021 13:16	pH	6.31	SU
GS-AP-MW-42H	8/4/2021 13:16	Temperature	18.41	C
GS-AP-MW-42H	8/4/2021 13:16	Turbidity	46.2	NTU
GS-AP-MW-42H	8/4/2021 13:21	Conductivity	981.4	uS/cm
GS-AP-MW-42H	8/4/2021 13:21	DO	0.14	mg/L
GS-AP-MW-42H	8/4/2021 13:21	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:21	Oxidation Reduction Potention	13.31	mv
GS-AP-MW-42H	8/4/2021 13:21	pH	6.35	SU
GS-AP-MW-42H	8/4/2021 13:21	Temperature	18.4	C
GS-AP-MW-42H	8/4/2021 13:21	Turbidity	21.4	NTU
GS-AP-MW-42H	8/4/2021 13:26	Conductivity	983.71	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-42H	8/4/2021 13:26	DO	0.14	mg/L
GS-AP-MW-42H	8/4/2021 13:26	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:26	Oxidation Reduction Potention	11.13	mv
GS-AP-MW-42H	8/4/2021 13:26	pH	6.37	SU
GS-AP-MW-42H	8/4/2021 13:26	Temperature	18.41	C
GS-AP-MW-42H	8/4/2021 13:26	Turbidity	12.8	NTU
GS-AP-MW-42H	8/4/2021 13:31	Conductivity	985.03	uS/cm
GS-AP-MW-42H	8/4/2021 13:31	DO	0.13	mg/L
GS-AP-MW-42H	8/4/2021 13:31	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:31	Oxidation Reduction Potention	9.16	mv
GS-AP-MW-42H	8/4/2021 13:31	pH	6.39	SU
GS-AP-MW-42H	8/4/2021 13:31	Temperature	18.47	C
GS-AP-MW-42H	8/4/2021 13:31	Turbidity	11.6	NTU
GS-AP-MW-42H	8/4/2021 13:36	Conductivity	989.53	uS/cm
GS-AP-MW-42H	8/4/2021 13:36	DO	0.13	mg/L
GS-AP-MW-42H	8/4/2021 13:36	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:36	Oxidation Reduction Potention	8.32	mv
GS-AP-MW-42H	8/4/2021 13:36	pH	6.39	SU
GS-AP-MW-42H	8/4/2021 13:36	Temperature	18.46	C
GS-AP-MW-42H	8/4/2021 13:36	Turbidity	10.93	NTU
GS-AP-MW-42H	8/4/2021 13:41	Conductivity	985.6	uS/cm
GS-AP-MW-42H	8/4/2021 13:41	DO	0.13	mg/L
GS-AP-MW-42H	8/4/2021 13:41	Depth to Water Detail	52.93	ft
GS-AP-MW-42H	8/4/2021 13:41	Oxidation Reduction Potention	7.58	mv
GS-AP-MW-42H	8/4/2021 13:41	pH	6.41	SU
GS-AP-MW-42H	8/4/2021 13:41	Temperature	18.41	C
GS-AP-MW-42H	8/4/2021 13:41	Turbidity	8.95	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17	8/3/2021 9:48	Conductivity	966.03	uS/cm
GS-AP-MW-17	8/3/2021 9:48	DO	0.39	mg/L
GS-AP-MW-17	8/3/2021 9:48	Depth to Water Detail	178.95	ft
GS-AP-MW-17	8/3/2021 9:48	Oxidation Reduction Potention	-28.05	mv
GS-AP-MW-17	8/3/2021 9:48	pH	8.48	SU
GS-AP-MW-17	8/3/2021 9:48	Temperature	18.52	C
GS-AP-MW-17	8/3/2021 9:48	Turbidity	2.6	NTU
GS-AP-MW-17	8/3/2021 9:55	Conductivity	860.54	uS/cm
GS-AP-MW-17	8/3/2021 9:55	DO	0.3	mg/L
GS-AP-MW-17	8/3/2021 9:55	Depth to Water Detail	178.95	ft
GS-AP-MW-17	8/3/2021 9:55	Oxidation Reduction Potention	-48.89	mv
GS-AP-MW-17	8/3/2021 9:55	pH	8.53	SU
GS-AP-MW-17	8/3/2021 9:55	Temperature	18.36	C
GS-AP-MW-17	8/3/2021 9:55	Turbidity	1.58	NTU
GS-AP-MW-17	8/3/2021 10:00	Conductivity	791.93	uS/cm
GS-AP-MW-17	8/3/2021 10:00	DO	0.27	mg/L
GS-AP-MW-17	8/3/2021 10:00	Depth to Water Detail	178.95	ft
GS-AP-MW-17	8/3/2021 10:00	Oxidation Reduction Potention	-58.24	mv
GS-AP-MW-17	8/3/2021 10:00	pH	8.55	SU
GS-AP-MW-17	8/3/2021 10:00	Temperature	18.37	C
GS-AP-MW-17	8/3/2021 10:00	Turbidity	1.39	NTU
GS-AP-MW-17	8/3/2021 10:05	Conductivity	774.7	uS/cm
GS-AP-MW-17	8/3/2021 10:05	DO	0.25	mg/L
GS-AP-MW-17	8/3/2021 10:05	Depth to Water Detail	178.95	ft
GS-AP-MW-17	8/3/2021 10:05	Oxidation Reduction Potention	-64.91	mv
GS-AP-MW-17	8/3/2021 10:05	pH	8.57	SU
GS-AP-MW-17	8/3/2021 10:05	Temperature	18.43	C
GS-AP-MW-17	8/3/2021 10:05	Turbidity	1.25	NTU
GS-AP-MW-17	8/3/2021 10:10	Conductivity	757.55	uS/cm
GS-AP-MW-17	8/3/2021 10:10	DO	0.25	mg/L
GS-AP-MW-17	8/3/2021 10:10	Depth to Water Detail	178.95	ft
GS-AP-MW-17	8/3/2021 10:10	Oxidation Reduction Potention	-71.82	mv
GS-AP-MW-17	8/3/2021 10:10	pH	8.58	SU
GS-AP-MW-17	8/3/2021 10:10	Temperature	18.38	C
GS-AP-MW-17	8/3/2021 10:10	Turbidity	1.5	NTU
GS-AP-MW-17	8/3/2021 10:15	Conductivity	736.86	uS/cm
GS-AP-MW-17	8/3/2021 10:15	DO	0.24	mg/L
GS-AP-MW-17	8/3/2021 10:15	Depth to Water Detail	178.95	ft
GS-AP-MW-17	8/3/2021 10:15	Oxidation Reduction Potention	-75.99	mv
GS-AP-MW-17	8/3/2021 10:15	pH	8.57	SU
GS-AP-MW-17	8/3/2021 10:15	Temperature	18.75	C
GS-AP-MW-17	8/3/2021 10:15	Turbidity	1.59	NTU
GS-AP-MW-17	8/3/2021 10:20	Conductivity	732.95	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17	8/3/2021 10:20	DO	0.22	mg/L
GS-AP-MW-17	8/3/2021 10:20	Depth to Water Detail	178.95	ft
GS-AP-MW-17	8/3/2021 10:20	Oxidation Reduction Potention	-80.53	mv
GS-AP-MW-17	8/3/2021 10:20	pH	8.6	SU
GS-AP-MW-17	8/3/2021 10:20	Temperature	18.36	C
GS-AP-MW-17	8/3/2021 10:20	Turbidity	1.03	NTU
GS-AP-MW-17V	8/2/2021 11:46	Conductivity	606.02	uS/cm
GS-AP-MW-17V	8/2/2021 11:46	DO	0.25	mg/L
GS-AP-MW-17V	8/2/2021 11:46	Depth to Water Detail	111	ft
GS-AP-MW-17V	8/2/2021 11:46	Oxidation Reduction Potention	-103.33	mv
GS-AP-MW-17V	8/2/2021 11:46	pH	7.68	SU
GS-AP-MW-17V	8/2/2021 11:46	Temperature	17.51	C
GS-AP-MW-17V	8/2/2021 11:46	Turbidity	0.48	NTU
GS-AP-MW-17V	8/2/2021 11:51	Conductivity	599.19	uS/cm
GS-AP-MW-17V	8/2/2021 11:51	DO	0.2	mg/L
GS-AP-MW-17V	8/2/2021 11:51	Depth to Water Detail	113.14	ft
GS-AP-MW-17V	8/2/2021 11:51	Oxidation Reduction Potention	-124.78	mv
GS-AP-MW-17V	8/2/2021 11:51	pH	7.7	SU
GS-AP-MW-17V	8/2/2021 11:51	Temperature	17.55	C
GS-AP-MW-17V	8/2/2021 11:51	Turbidity	0.44	NTU
GS-AP-MW-17V	8/2/2021 11:56	Conductivity	597.13	uS/cm
GS-AP-MW-17V	8/2/2021 11:56	DO	0.18	mg/L
GS-AP-MW-17V	8/2/2021 11:56	Depth to Water Detail	115.64	ft
GS-AP-MW-17V	8/2/2021 11:56	Oxidation Reduction Potention	-131.8	mv
GS-AP-MW-17V	8/2/2021 11:56	pH	7.72	SU
GS-AP-MW-17V	8/2/2021 11:56	Temperature	17.59	C
GS-AP-MW-17V	8/2/2021 11:56	Turbidity	0.49	NTU
GS-AP-MW-17V	8/2/2021 12:01	Conductivity	595.58	uS/cm
GS-AP-MW-17V	8/2/2021 12:01	DO	0.17	mg/L
GS-AP-MW-17V	8/2/2021 12:01	Depth to Water Detail	117.98	ft
GS-AP-MW-17V	8/2/2021 12:01	Oxidation Reduction Potention	-136.69	mv
GS-AP-MW-17V	8/2/2021 12:01	pH	7.71	SU
GS-AP-MW-17V	8/2/2021 12:01	Temperature	17.62	C
GS-AP-MW-17V	8/2/2021 12:01	Turbidity	0.36	NTU
GS-AP-MW-17V	8/2/2021 12:06	Conductivity	594.46	uS/cm
GS-AP-MW-17V	8/2/2021 12:06	DO	0.17	mg/L
GS-AP-MW-17V	8/2/2021 12:06	Depth to Water Detail	120.09	ft
GS-AP-MW-17V	8/2/2021 12:06	Oxidation Reduction Potention	-139.42	mv
GS-AP-MW-17V	8/2/2021 12:06	pH	7.73	SU
GS-AP-MW-17V	8/2/2021 12:06	Temperature	17.41	C
GS-AP-MW-17V	8/2/2021 12:06	Turbidity	0.32	NTU
GS-AP-MW-17V	8/2/2021 12:11	Conductivity	593.74	uS/cm
GS-AP-MW-17V	8/2/2021 12:11	DO	0.16	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17V	8/2/2021 12:11	Depth to Water Detail	122.19	ft
GS-AP-MW-17V	8/2/2021 12:11	Oxidation Reduction Potention	-140.98	mv
GS-AP-MW-17V	8/2/2021 12:11	pH	7.74	SU
GS-AP-MW-17V	8/2/2021 12:11	Temperature	17.47	C
GS-AP-MW-17V	8/2/2021 12:11	Turbidity	0.44	NTU
GS-AP-MW-17V	8/2/2021 12:16	Conductivity	592.6	uS/cm
GS-AP-MW-17V	8/2/2021 12:16	DO	0.17	mg/L
GS-AP-MW-17V	8/2/2021 12:16	Depth to Water Detail	124.2	ft
GS-AP-MW-17V	8/2/2021 12:16	Oxidation Reduction Potention	-148.3	mv
GS-AP-MW-17V	8/2/2021 12:16	pH	7.74	SU
GS-AP-MW-17V	8/2/2021 12:16	Temperature	17.52	C
GS-AP-MW-17V	8/2/2021 12:16	Turbidity	0.26	NTU
GS-AP-MW-17V	8/2/2021 12:21	Conductivity	588.6	uS/cm
GS-AP-MW-17V	8/2/2021 12:21	DO	0.17	mg/L
GS-AP-MW-17V	8/2/2021 12:21	Depth to Water Detail	125.43	ft
GS-AP-MW-17V	8/2/2021 12:21	Oxidation Reduction Potention	-149.16	mv
GS-AP-MW-17V	8/2/2021 12:21	pH	7.73	SU
GS-AP-MW-17V	8/2/2021 12:21	Temperature	17.54	C
GS-AP-MW-17V	8/2/2021 12:21	Turbidity	0.61	NTU
GS-AP-MW-17V	8/2/2021 12:26	Conductivity	586.71	uS/cm
GS-AP-MW-17V	8/2/2021 12:26	DO	0.17	mg/L
GS-AP-MW-17V	8/2/2021 12:26	Depth to Water Detail	127.55	ft
GS-AP-MW-17V	8/2/2021 12:26	Oxidation Reduction Potention	-149.14	mv
GS-AP-MW-17V	8/2/2021 12:26	pH	7.73	SU
GS-AP-MW-17V	8/2/2021 12:26	Temperature	17.42	C
GS-AP-MW-17V	8/2/2021 12:26	Turbidity	0.66	NTU
GS-AP-MW-17V	8/2/2021 12:31	Conductivity	578.33	uS/cm
GS-AP-MW-17V	8/2/2021 12:31	DO	0.17	mg/L
GS-AP-MW-17V	8/2/2021 12:31	Depth to Water Detail	128.92	ft
GS-AP-MW-17V	8/2/2021 12:31	Oxidation Reduction Potention	-147.65	mv
GS-AP-MW-17V	8/2/2021 12:31	pH	7.72	SU
GS-AP-MW-17V	8/2/2021 12:31	Temperature	17.44	C
GS-AP-MW-17V	8/2/2021 12:31	Turbidity	0.5	NTU
GS-AP-MW-17V	8/2/2021 12:36	Conductivity	588.85	uS/cm
GS-AP-MW-17V	8/2/2021 12:36	DO	0.17	mg/L
GS-AP-MW-17V	8/2/2021 12:36	Depth to Water Detail	131	ft
GS-AP-MW-17V	8/2/2021 12:36	Oxidation Reduction Potention	-147.07	mv
GS-AP-MW-17V	8/2/2021 12:36	pH	7.72	SU
GS-AP-MW-17V	8/2/2021 12:36	Temperature	17.47	C
GS-AP-MW-17V	8/2/2021 12:36	Turbidity	0.59	NTU
GS-AP-MW-17V	8/2/2021 12:41	Conductivity	575.68	uS/cm
GS-AP-MW-17V	8/2/2021 12:41	DO	0.16	mg/L
GS-AP-MW-17V	8/2/2021 12:41	Depth to Water Detail	131.36	ft

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-17V	8/2/2021 12:41	Oxidation Reduction Potention	-144.49	mv
GS-AP-MW-17V	8/2/2021 12:41	pH	7.71	SU
GS-AP-MW-17V	8/2/2021 12:41	Temperature	17.51	C
GS-AP-MW-17V	8/2/2021 12:41	Turbidity	0.79	NTU
GS-AP-MW-17V	8/2/2021 12:46	Conductivity	587.35	uS/cm
GS-AP-MW-17V	8/2/2021 12:46	DO	0.36	mg/L
GS-AP-MW-17V	8/2/2021 12:46	Depth to Water Detail	131.2	ft
GS-AP-MW-17V	8/2/2021 12:46	Oxidation Reduction Potention	-137.13	mv
GS-AP-MW-17V	8/2/2021 12:46	pH	7.7	SU
GS-AP-MW-17V	8/2/2021 12:46	Temperature	19.11	C
GS-AP-MW-17V	8/2/2021 12:46	Turbidity	0.99	NTU
GS-AP-MW-17V	8/2/2021 12:51	Conductivity	578	uS/cm
GS-AP-MW-17V	8/2/2021 12:51	DO	0.44	mg/L
GS-AP-MW-17V	8/2/2021 12:51	Depth to Water Detail	130.98	ft
GS-AP-MW-17V	8/2/2021 12:51	Oxidation Reduction Potention	-133.34	mv
GS-AP-MW-17V	8/2/2021 12:51	pH	7.69	SU
GS-AP-MW-17V	8/2/2021 12:51	Temperature	19.3	C
GS-AP-MW-17V	8/2/2021 12:51	Turbidity	0.66	NTU
GS-AP-MW-17V	8/2/2021 12:56	Conductivity	570.16	uS/cm
GS-AP-MW-17V	8/2/2021 12:56	DO	0.47	mg/L
GS-AP-MW-17V	8/2/2021 12:56	Depth to Water Detail	130.75	ft
GS-AP-MW-17V	8/2/2021 12:56	Oxidation Reduction Potention	-129.09	mv
GS-AP-MW-17V	8/2/2021 12:56	pH	7.69	SU
GS-AP-MW-17V	8/2/2021 12:56	Temperature	19.38	C
GS-AP-MW-17V	8/2/2021 12:56	Turbidity	0.94	NTU
GS-AP-MW-17V	8/2/2021 13:01	Conductivity	562.64	uS/cm
GS-AP-MW-17V	8/2/2021 13:01	DO	0.5	mg/L
GS-AP-MW-17V	8/2/2021 13:01	Depth to Water Detail	130.43	ft
GS-AP-MW-17V	8/2/2021 13:01	Oxidation Reduction Potention	-123.65	mv
GS-AP-MW-17V	8/2/2021 13:01	pH	7.65	SU
GS-AP-MW-17V	8/2/2021 13:01	Temperature	19.26	C
GS-AP-MW-17V	8/2/2021 13:01	Turbidity	0.48	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-43H	8/4/2021 10:11	Conductivity	1272.13	uS/cm
GS-AP-MW-43H	8/4/2021 10:11	DO	2.14	mg/L
GS-AP-MW-43H	8/4/2021 10:11	Depth to Water Detail	150.8	ft
GS-AP-MW-43H	8/4/2021 10:11	Oxidation Reduction Potention	-283.95	mv
GS-AP-MW-43H	8/4/2021 10:11	pH	8.57	SU
GS-AP-MW-43H	8/4/2021 10:11	Temperature	20.1	C
GS-AP-MW-43H	8/4/2021 10:11	Turbidity	13	NTU
GS-AP-MW-43H	8/4/2021 10:16	Conductivity	1343.7	uS/cm
GS-AP-MW-43H	8/4/2021 10:16	DO	1.16	mg/L
GS-AP-MW-43H	8/4/2021 10:16	Depth to Water Detail	150.95	ft
GS-AP-MW-43H	8/4/2021 10:16	Oxidation Reduction Potention	-289.85	mv
GS-AP-MW-43H	8/4/2021 10:16	pH	8.72	SU
GS-AP-MW-43H	8/4/2021 10:16	Temperature	20.04	C
GS-AP-MW-43H	8/4/2021 10:16	Turbidity	7.77	NTU
GS-AP-MW-43H	8/4/2021 10:21	Conductivity	1379.48	uS/cm
GS-AP-MW-43H	8/4/2021 10:21	DO	0.97	mg/L
GS-AP-MW-43H	8/4/2021 10:21	Depth to Water Detail	151	ft
GS-AP-MW-43H	8/4/2021 10:21	Oxidation Reduction Potention	-288.94	mv
GS-AP-MW-43H	8/4/2021 10:21	pH	8.72	SU
GS-AP-MW-43H	8/4/2021 10:21	Temperature	20.12	C
GS-AP-MW-43H	8/4/2021 10:21	Turbidity	5.88	NTU
GS-AP-MW-43H	8/4/2021 10:26	Conductivity	1394.37	uS/cm
GS-AP-MW-43H	8/4/2021 10:26	DO	0.9	mg/L
GS-AP-MW-43H	8/4/2021 10:26	Depth to Water Detail	151.18	ft
GS-AP-MW-43H	8/4/2021 10:26	Oxidation Reduction Potention	-291.09	mv
GS-AP-MW-43H	8/4/2021 10:26	pH	8.74	SU
GS-AP-MW-43H	8/4/2021 10:26	Temperature	19.99	C
GS-AP-MW-43H	8/4/2021 10:26	Turbidity	4.62	NTU
GS-AP-MW-43H	8/4/2021 10:31	Conductivity	1400.85	uS/cm
GS-AP-MW-43H	8/4/2021 10:31	DO	0.86	mg/L
GS-AP-MW-43H	8/4/2021 10:31	Depth to Water Detail	151.22	ft
GS-AP-MW-43H	8/4/2021 10:31	Oxidation Reduction Potention	-293.02	mv
GS-AP-MW-43H	8/4/2021 10:31	pH	8.75	SU
GS-AP-MW-43H	8/4/2021 10:31	Temperature	20.02	C
GS-AP-MW-43H	8/4/2021 10:31	Turbidity	3.65	NTU
GS-AP-MW-43H	8/4/2021 10:36	Conductivity	1405.47	uS/cm
GS-AP-MW-43H	8/4/2021 10:36	DO	0.92	mg/L
GS-AP-MW-43H	8/4/2021 10:36	Depth to Water Detail	151.29	ft
GS-AP-MW-43H	8/4/2021 10:36	Oxidation Reduction Potention	-293.53	mv
GS-AP-MW-43H	8/4/2021 10:36	pH	8.75	SU
GS-AP-MW-43H	8/4/2021 10:36	Temperature	20.39	C
GS-AP-MW-43H	8/4/2021 10:36	Turbidity	3.68	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-22	8/3/2021 11:27	Conductivity	669.85	uS/cm
GS-AP-PZ-22	8/3/2021 11:27	DO	1.48	mg/L
GS-AP-PZ-22	8/3/2021 11:27	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 11:27	Oxidation Reduction Potention	-139.84	mv
GS-AP-PZ-22	8/3/2021 11:27	pH	8.63	SU
GS-AP-PZ-22	8/3/2021 11:27	Temperature	20.38	C
GS-AP-PZ-22	8/3/2021 11:27	Turbidity	1.07	NTU
GS-AP-PZ-22	8/3/2021 11:32	Conductivity	714.85	uS/cm
GS-AP-PZ-22	8/3/2021 11:32	DO	0.58	mg/L
GS-AP-PZ-22	8/3/2021 11:32	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 11:32	Oxidation Reduction Potention	-140.97	mv
GS-AP-PZ-22	8/3/2021 11:32	pH	9.37	SU
GS-AP-PZ-22	8/3/2021 11:32	Temperature	19.79	C
GS-AP-PZ-22	8/3/2021 11:32	Turbidity	1.1	NTU
GS-AP-PZ-22	8/3/2021 11:37	Conductivity	722.78	uS/cm
GS-AP-PZ-22	8/3/2021 11:37	DO	0.44	mg/L
GS-AP-PZ-22	8/3/2021 11:37	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 11:37	Oxidation Reduction Potention	-120.72	mv
GS-AP-PZ-22	8/3/2021 11:37	pH	9.37	SU
GS-AP-PZ-22	8/3/2021 11:37	Temperature	20	C
GS-AP-PZ-22	8/3/2021 11:37	Turbidity	1.17	NTU
GS-AP-PZ-22	8/3/2021 11:40	Conductivity	720.08	uS/cm
GS-AP-PZ-22	8/3/2021 11:40	DO	3.01	mg/L
GS-AP-PZ-22	8/3/2021 11:40	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 11:40	Oxidation Reduction Potention	-92.25	mv
GS-AP-PZ-22	8/3/2021 11:40	pH	9.29	SU
GS-AP-PZ-22	8/3/2021 11:40	Temperature	19.87	C
GS-AP-PZ-22	8/3/2021 11:40	Turbidity	1.69	NTU
GS-AP-PZ-22	8/3/2021 11:45	Conductivity	714.43	uS/cm
GS-AP-PZ-22	8/3/2021 11:45	DO	0.36	mg/L
GS-AP-PZ-22	8/3/2021 11:45	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 11:45	Oxidation Reduction Potention	-110.02	mv
GS-AP-PZ-22	8/3/2021 11:45	pH	9.22	SU
GS-AP-PZ-22	8/3/2021 11:45	Temperature	19.76	C
GS-AP-PZ-22	8/3/2021 11:45	Turbidity	1.3	NTU
GS-AP-PZ-22	8/3/2021 11:50	Conductivity	707.46	uS/cm
GS-AP-PZ-22	8/3/2021 11:50	DO	0.33	mg/L
GS-AP-PZ-22	8/3/2021 11:50	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 11:50	Oxidation Reduction Potention	-118.41	mv
GS-AP-PZ-22	8/3/2021 11:50	pH	9.1	SU
GS-AP-PZ-22	8/3/2021 11:50	Temperature	19.46	C
GS-AP-PZ-22	8/3/2021 11:50	Turbidity	1.1	NTU
GS-AP-PZ-22	8/3/2021 11:55	Conductivity	698.56	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-22	8/3/2021 11:55	DO	0.3	mg/L
GS-AP-PZ-22	8/3/2021 11:55	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 11:55	Oxidation Reduction Potention	-152.9	mv
GS-AP-PZ-22	8/3/2021 11:55	pH	8.91	SU
GS-AP-PZ-22	8/3/2021 11:55	Temperature	19.45	C
GS-AP-PZ-22	8/3/2021 11:55	Turbidity	0.85	NTU
GS-AP-PZ-22	8/3/2021 12:00	Conductivity	696.64	uS/cm
GS-AP-PZ-22	8/3/2021 12:00	DO	0.27	mg/L
GS-AP-PZ-22	8/3/2021 12:00	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 12:00	Oxidation Reduction Potention	-217.43	mv
GS-AP-PZ-22	8/3/2021 12:00	pH	8.59	SU
GS-AP-PZ-22	8/3/2021 12:00	Temperature	19.69	C
GS-AP-PZ-22	8/3/2021 12:00	Turbidity	0.93	NTU
GS-AP-PZ-22	8/3/2021 12:05	Conductivity	689.44	uS/cm
GS-AP-PZ-22	8/3/2021 12:05	DO	0.28	mg/L
GS-AP-PZ-22	8/3/2021 12:05	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 12:05	Oxidation Reduction Potention	-211.58	mv
GS-AP-PZ-22	8/3/2021 12:05	pH	8.18	SU
GS-AP-PZ-22	8/3/2021 12:05	Temperature	19.59	C
GS-AP-PZ-22	8/3/2021 12:05	Turbidity	0.54	NTU
GS-AP-PZ-22	8/3/2021 12:10	Conductivity	687.54	uS/cm
GS-AP-PZ-22	8/3/2021 12:10	DO	0.28	mg/L
GS-AP-PZ-22	8/3/2021 12:10	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 12:10	Oxidation Reduction Potention	-186.36	mv
GS-AP-PZ-22	8/3/2021 12:10	pH	7.89	SU
GS-AP-PZ-22	8/3/2021 12:10	Temperature	19.76	C
GS-AP-PZ-22	8/3/2021 12:10	Turbidity	0.39	NTU
GS-AP-PZ-22	8/3/2021 12:15	Conductivity	682.33	uS/cm
GS-AP-PZ-22	8/3/2021 12:15	DO	0.29	mg/L
GS-AP-PZ-22	8/3/2021 12:15	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 12:15	Oxidation Reduction Potention	-174.09	mv
GS-AP-PZ-22	8/3/2021 12:15	pH	7.8	SU
GS-AP-PZ-22	8/3/2021 12:15	Temperature	19.64	C
GS-AP-PZ-22	8/3/2021 12:15	Turbidity	0.29	NTU
GS-AP-PZ-22	8/3/2021 12:20	Conductivity	678.34	uS/cm
GS-AP-PZ-22	8/3/2021 12:20	DO	0.29	mg/L
GS-AP-PZ-22	8/3/2021 12:20	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 12:20	Oxidation Reduction Potention	-168.32	mv
GS-AP-PZ-22	8/3/2021 12:20	pH	7.76	SU
GS-AP-PZ-22	8/3/2021 12:20	Temperature	19.34	C
GS-AP-PZ-22	8/3/2021 12:20	Turbidity	0.39	NTU
GS-AP-PZ-22	8/3/2021 12:25	Conductivity	679.04	uS/cm
GS-AP-PZ-22	8/3/2021 12:25	DO	0.27	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-22	8/3/2021 12:25	Depth to Water Detail	256.3	ft
GS-AP-PZ-22	8/3/2021 12:25	Oxidation Reduction Potention	-164.87	mv
GS-AP-PZ-22	8/3/2021 12:25	pH	7.74	SU
GS-AP-PZ-22	8/3/2021 12:25	Temperature	19.96	C
GS-AP-PZ-22	8/3/2021 12:25	Turbidity	0.74	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-2	8/4/2021 11:46	Conductivity	538.3	uS/cm
GS-AP-MW-2	8/4/2021 11:46	DO	1.92	mg/L
GS-AP-MW-2	8/4/2021 11:46	Depth to Water Detail	147.82	ft
GS-AP-MW-2	8/4/2021 11:46	Oxidation Reduction Potention	-200.54	mv
GS-AP-MW-2	8/4/2021 11:46	pH	8.7	SU
GS-AP-MW-2	8/4/2021 11:46	Temperature	24.22	C
GS-AP-MW-2	8/4/2021 11:46	Turbidity	2.34	NTU
GS-AP-MW-2	8/4/2021 11:51	Conductivity	551.79	uS/cm
GS-AP-MW-2	8/4/2021 11:51	DO	0.63	mg/L
GS-AP-MW-2	8/4/2021 11:51	Depth to Water Detail	147.98	ft
GS-AP-MW-2	8/4/2021 11:51	Oxidation Reduction Potention	-208.58	mv
GS-AP-MW-2	8/4/2021 11:51	pH	8.92	SU
GS-AP-MW-2	8/4/2021 11:51	Temperature	24	C
GS-AP-MW-2	8/4/2021 11:51	Turbidity	2.06	NTU
GS-AP-MW-2	8/4/2021 11:56	Conductivity	549.89	uS/cm
GS-AP-MW-2	8/4/2021 11:56	DO	0.42	mg/L
GS-AP-MW-2	8/4/2021 11:56	Depth to Water Detail	148.05	ft
GS-AP-MW-2	8/4/2021 11:56	Oxidation Reduction Potention	-216.14	mv
GS-AP-MW-2	8/4/2021 11:56	pH	9.03	SU
GS-AP-MW-2	8/4/2021 11:56	Temperature	24.36	C
GS-AP-MW-2	8/4/2021 11:56	Turbidity	1.84	NTU
GS-AP-MW-2	8/4/2021 12:01	Conductivity	541.34	uS/cm
GS-AP-MW-2	8/4/2021 12:01	DO	0.37	mg/L
GS-AP-MW-2	8/4/2021 12:01	Depth to Water Detail	148.11	ft
GS-AP-MW-2	8/4/2021 12:01	Oxidation Reduction Potention	-221.72	mv
GS-AP-MW-2	8/4/2021 12:01	pH	9.08	SU
GS-AP-MW-2	8/4/2021 12:01	Temperature	24.28	C
GS-AP-MW-2	8/4/2021 12:01	Turbidity	1.71	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15	8/3/2021 12:56	Conductivity	2016.12	uS/cm
GS-AP-MW-15	8/3/2021 12:56	DO	0.23	mg/L
GS-AP-MW-15	8/3/2021 12:56	Depth to Water Detail	84.96	ft
GS-AP-MW-15	8/3/2021 12:56	Oxidation Reduction Potention	-291.11	mv
GS-AP-MW-15	8/3/2021 12:56	pH	11.49	SU
GS-AP-MW-15	8/3/2021 12:56	Temperature	20.8	C
GS-AP-MW-15	8/3/2021 12:56	Turbidity	2.66	NTU
GS-AP-MW-15	8/3/2021 13:01	Conductivity	2024.05	uS/cm
GS-AP-MW-15	8/3/2021 13:01	DO	0.18	mg/L
GS-AP-MW-15	8/3/2021 13:01	Depth to Water Detail	86.63	ft
GS-AP-MW-15	8/3/2021 13:01	Oxidation Reduction Potention	-299.07	mv
GS-AP-MW-15	8/3/2021 13:01	pH	11.51	SU
GS-AP-MW-15	8/3/2021 13:01	Temperature	20.22	C
GS-AP-MW-15	8/3/2021 13:01	Turbidity	1.09	NTU
GS-AP-MW-15	8/3/2021 13:06	Conductivity	2006.1	uS/cm
GS-AP-MW-15	8/3/2021 13:06	DO	0.19	mg/L
GS-AP-MW-15	8/3/2021 13:06	Depth to Water Detail	88.48	ft
GS-AP-MW-15	8/3/2021 13:06	Oxidation Reduction Potention	-302.53	mv
GS-AP-MW-15	8/3/2021 13:06	pH	11.53	SU
GS-AP-MW-15	8/3/2021 13:06	Temperature	20.68	C
GS-AP-MW-15	8/3/2021 13:06	Turbidity	1.03	NTU
GS-AP-MW-15	8/3/2021 13:11	Conductivity	1990.45	uS/cm
GS-AP-MW-15	8/3/2021 13:11	DO	0.19	mg/L
GS-AP-MW-15	8/3/2021 13:11	Depth to Water Detail	89.88	ft
GS-AP-MW-15	8/3/2021 13:11	Oxidation Reduction Potention	-305.14	mv
GS-AP-MW-15	8/3/2021 13:11	pH	11.55	SU
GS-AP-MW-15	8/3/2021 13:11	Temperature	20.52	C
GS-AP-MW-15	8/3/2021 13:11	Turbidity	1.31	NTU
GS-AP-MW-15	8/3/2021 13:16	Conductivity	1982.58	uS/cm
GS-AP-MW-15	8/3/2021 13:16	DO	0.34	mg/L
GS-AP-MW-15	8/3/2021 13:16	Depth to Water Detail	90.05	ft
GS-AP-MW-15	8/3/2021 13:16	Oxidation Reduction Potention	-298.42	mv
GS-AP-MW-15	8/3/2021 13:16	pH	11.49	SU
GS-AP-MW-15	8/3/2021 13:16	Temperature	24.19	C
GS-AP-MW-15	8/3/2021 13:16	Turbidity	0.96	NTU
GS-AP-MW-15	8/3/2021 13:21	Conductivity	1971.84	uS/cm
GS-AP-MW-15	8/3/2021 13:21	DO	0.46	mg/L
GS-AP-MW-15	8/3/2021 13:21	Depth to Water Detail	90.12	ft
GS-AP-MW-15	8/3/2021 13:21	Oxidation Reduction Potention	-299.69	mv
GS-AP-MW-15	8/3/2021 13:21	pH	11.51	SU
GS-AP-MW-15	8/3/2021 13:21	Temperature	24.74	C
GS-AP-MW-15	8/3/2021 13:21	Turbidity	1.08	NTU
GS-AP-MW-15	8/3/2021 13:26	Conductivity	1944.05	uS/cm

**Alabama Power Company
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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15	8/3/2021 13:26	DO	0.44	mg/L
GS-AP-MW-15	8/3/2021 13:26	Depth to Water Detail	90.16	ft
GS-AP-MW-15	8/3/2021 13:26	Oxidation Reduction Potention	-304.94	mv
GS-AP-MW-15	8/3/2021 13:26	pH	11.56	SU
GS-AP-MW-15	8/3/2021 13:26	Temperature	24.22	C
GS-AP-MW-15	8/3/2021 13:26	Turbidity	1.24	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15V	8/3/2021 10:38	Conductivity	1445.18	uS/cm
GS-AP-MW-15V	8/3/2021 10:38	DO	3.14	mg/L
GS-AP-MW-15V	8/3/2021 10:38	Depth to Water Detail	156.35	ft
GS-AP-MW-15V	8/3/2021 10:38	Oxidation Reduction Potention	-168.53	mv
GS-AP-MW-15V	8/3/2021 10:38	pH	8.99	SU
GS-AP-MW-15V	8/3/2021 10:38	Temperature	20.71	C
GS-AP-MW-15V	8/3/2021 10:38	Turbidity	1.72	NTU
GS-AP-MW-15V	8/3/2021 10:43	Conductivity	1509.55	uS/cm
GS-AP-MW-15V	8/3/2021 10:43	DO	1.13	mg/L
GS-AP-MW-15V	8/3/2021 10:43	Depth to Water Detail	156.94	ft
GS-AP-MW-15V	8/3/2021 10:43	Oxidation Reduction Potention	-198.87	mv
GS-AP-MW-15V	8/3/2021 10:43	pH	9.16	SU
GS-AP-MW-15V	8/3/2021 10:43	Temperature	20.48	C
GS-AP-MW-15V	8/3/2021 10:43	Turbidity	4.73	NTU
GS-AP-MW-15V	8/3/2021 10:48	Conductivity	1543.8	uS/cm
GS-AP-MW-15V	8/3/2021 10:48	DO	0.75	mg/L
GS-AP-MW-15V	8/3/2021 10:48	Depth to Water Detail	157.42	ft
GS-AP-MW-15V	8/3/2021 10:48	Oxidation Reduction Potention	-203.41	mv
GS-AP-MW-15V	8/3/2021 10:48	pH	9.1	SU
GS-AP-MW-15V	8/3/2021 10:48	Temperature	20.42	C
GS-AP-MW-15V	8/3/2021 10:48	Turbidity	5.7	NTU
GS-AP-MW-15V	8/3/2021 10:53	Conductivity	1560.56	uS/cm
GS-AP-MW-15V	8/3/2021 10:53	DO	0.63	mg/L
GS-AP-MW-15V	8/3/2021 10:53	Depth to Water Detail	157.82	ft
GS-AP-MW-15V	8/3/2021 10:53	Oxidation Reduction Potention	-207.98	mv
GS-AP-MW-15V	8/3/2021 10:53	pH	9.1	SU
GS-AP-MW-15V	8/3/2021 10:53	Temperature	20.44	C
GS-AP-MW-15V	8/3/2021 10:53	Turbidity	5.37	NTU
GS-AP-MW-15V	8/3/2021 10:58	Conductivity	1563.22	uS/cm
GS-AP-MW-15V	8/3/2021 10:58	DO	0.58	mg/L
GS-AP-MW-15V	8/3/2021 10:58	Depth to Water Detail	158.2	ft
GS-AP-MW-15V	8/3/2021 10:58	Oxidation Reduction Potention	-206.12	mv
GS-AP-MW-15V	8/3/2021 10:58	pH	9.07	SU
GS-AP-MW-15V	8/3/2021 10:58	Temperature	20.49	C
GS-AP-MW-15V	8/3/2021 10:58	Turbidity	3.97	NTU
GS-AP-MW-15V	8/3/2021 11:03	Conductivity	1562.02	uS/cm
GS-AP-MW-15V	8/3/2021 11:03	DO	0.58	mg/L
GS-AP-MW-15V	8/3/2021 11:03	Depth to Water Detail	158.47	ft
GS-AP-MW-15V	8/3/2021 11:03	Oxidation Reduction Potention	-203.47	mv
GS-AP-MW-15V	8/3/2021 11:03	pH	9.05	SU
GS-AP-MW-15V	8/3/2021 11:03	Temperature	20.34	C
GS-AP-MW-15V	8/3/2021 11:03	Turbidity	2.62	NTU
GS-AP-MW-15V	8/3/2021 11:08	Conductivity	1553.73	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15V	8/3/2021 11:08	DO	0.57	mg/L
GS-AP-MW-15V	8/3/2021 11:08	Depth to Water Detail	158.72	ft
GS-AP-MW-15V	8/3/2021 11:08	Oxidation Reduction Potention	-200.77	mv
GS-AP-MW-15V	8/3/2021 11:08	pH	9.04	SU
GS-AP-MW-15V	8/3/2021 11:08	Temperature	20.51	C
GS-AP-MW-15V	8/3/2021 11:08	Turbidity	1.86	NTU
GS-AP-MW-15V	8/3/2021 11:13	Conductivity	1530.84	uS/cm
GS-AP-MW-15V	8/3/2021 11:13	DO	0.56	mg/L
GS-AP-MW-15V	8/3/2021 11:13	Depth to Water Detail	158.9	ft
GS-AP-MW-15V	8/3/2021 11:13	Oxidation Reduction Potention	-199	mv
GS-AP-MW-15V	8/3/2021 11:13	pH	9.04	SU
GS-AP-MW-15V	8/3/2021 11:13	Temperature	20.56	C
GS-AP-MW-15V	8/3/2021 11:13	Turbidity	1.69	NTU
GS-AP-MW-15V	8/3/2021 11:18	Conductivity	1523.99	uS/cm
GS-AP-MW-15V	8/3/2021 11:18	DO	0.6	mg/L
GS-AP-MW-15V	8/3/2021 11:18	Depth to Water Detail	159.12	ft
GS-AP-MW-15V	8/3/2021 11:18	Oxidation Reduction Potention	-197.15	mv
GS-AP-MW-15V	8/3/2021 11:18	pH	9.03	SU
GS-AP-MW-15V	8/3/2021 11:18	Temperature	20.41	C
GS-AP-MW-15V	8/3/2021 11:18	Turbidity	1.71	NTU
GS-AP-MW-15V	8/3/2021 11:23	Conductivity	1517.35	uS/cm
GS-AP-MW-15V	8/3/2021 11:23	DO	0.61	mg/L
GS-AP-MW-15V	8/3/2021 11:23	Depth to Water Detail	159.24	ft
GS-AP-MW-15V	8/3/2021 11:23	Oxidation Reduction Potention	-195.5	mv
GS-AP-MW-15V	8/3/2021 11:23	pH	9.03	SU
GS-AP-MW-15V	8/3/2021 11:23	Temperature	20.63	C
GS-AP-MW-15V	8/3/2021 11:23	Turbidity	1.66	NTU
GS-AP-MW-15V	8/3/2021 11:28	Conductivity	1550.03	uS/cm
GS-AP-MW-15V	8/3/2021 11:28	DO	1.07	mg/L
GS-AP-MW-15V	8/3/2021 11:28	Depth to Water Detail	159.35	ft
GS-AP-MW-15V	8/3/2021 11:28	Oxidation Reduction Potention	-188.14	mv
GS-AP-MW-15V	8/3/2021 11:28	pH	9	SU
GS-AP-MW-15V	8/3/2021 11:28	Temperature	23.33	C
GS-AP-MW-15V	8/3/2021 11:28	Turbidity	1.58	NTU
GS-AP-MW-15V	8/3/2021 11:33	Conductivity	1545.13	uS/cm
GS-AP-MW-15V	8/3/2021 11:33	DO	0.96	mg/L
GS-AP-MW-15V	8/3/2021 11:33	Depth to Water Detail	159.48	ft
GS-AP-MW-15V	8/3/2021 11:33	Oxidation Reduction Potention	-189.28	mv
GS-AP-MW-15V	8/3/2021 11:33	pH	8.98	SU
GS-AP-MW-15V	8/3/2021 11:33	Temperature	24.09	C
GS-AP-MW-15V	8/3/2021 11:33	Turbidity	1.24	NTU
GS-AP-MW-15V	8/3/2021 11:38	Conductivity	1532.78	uS/cm
GS-AP-MW-15V	8/3/2021 11:38	DO	0.89	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-15V	8/3/2021 11:38	Depth to Water Detail	159.58	ft
GS-AP-MW-15V	8/3/2021 11:38	Oxidation Reduction Potention	-189.64	mv
GS-AP-MW-15V	8/3/2021 11:38	pH	8.97	SU
GS-AP-MW-15V	8/3/2021 11:38	Temperature	24.31	C
GS-AP-MW-15V	8/3/2021 11:38	Turbidity	1.62	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16S	8/3/2021 14:35	Conductivity	2019.03	uS/cm
GS-AP-MW-16S	8/3/2021 14:35	DO	1.71	mg/L
GS-AP-MW-16S	8/3/2021 14:35	Depth to Water Detail	58.29	ft
GS-AP-MW-16S	8/3/2021 14:35	Oxidation Reduction Potention	-142.55	mv
GS-AP-MW-16S	8/3/2021 14:35	pH	11.59	SU
GS-AP-MW-16S	8/3/2021 14:35	Temperature	20.74	C
GS-AP-MW-16S	8/3/2021 14:35	Turbidity	2.17	NTU
GS-AP-MW-16S	8/3/2021 14:40	Conductivity	2020.68	uS/cm
GS-AP-MW-16S	8/3/2021 14:40	DO	1.68	mg/L
GS-AP-MW-16S	8/3/2021 14:40	Depth to Water Detail	58.39	ft
GS-AP-MW-16S	8/3/2021 14:40	Oxidation Reduction Potention	-120.64	mv
GS-AP-MW-16S	8/3/2021 14:40	pH	11.51	SU
GS-AP-MW-16S	8/3/2021 14:40	Temperature	20.68	C
GS-AP-MW-16S	8/3/2021 14:40	Turbidity	1.41	NTU
GS-AP-MW-16S	8/3/2021 14:45	Conductivity	2006.79	uS/cm
GS-AP-MW-16S	8/3/2021 14:45	DO	1.64	mg/L
GS-AP-MW-16S	8/3/2021 14:45	Depth to Water Detail	58.51	ft
GS-AP-MW-16S	8/3/2021 14:45	Oxidation Reduction Potention	-109.87	mv
GS-AP-MW-16S	8/3/2021 14:45	pH	11.47	SU
GS-AP-MW-16S	8/3/2021 14:45	Temperature	20.65	C
GS-AP-MW-16S	8/3/2021 14:45	Turbidity	1.24	NTU
GS-AP-MW-16S	8/3/2021 14:50	Conductivity	1841.99	uS/cm
GS-AP-MW-16S	8/3/2021 14:50	DO	1.42	mg/L
GS-AP-MW-16S	8/3/2021 14:50	Depth to Water Detail	58.55	ft
GS-AP-MW-16S	8/3/2021 14:50	Oxidation Reduction Potention	-113.9	mv
GS-AP-MW-16S	8/3/2021 14:50	pH	11.47	SU
GS-AP-MW-16S	8/3/2021 14:50	Temperature	20.38	C
GS-AP-MW-16S	8/3/2021 14:50	Turbidity	1.84	NTU
GS-AP-MW-16S	8/3/2021 14:55	Conductivity	1441.15	uS/cm
GS-AP-MW-16S	8/3/2021 14:55	DO	0.79	mg/L
GS-AP-MW-16S	8/3/2021 14:55	Depth to Water Detail	58.59	ft
GS-AP-MW-16S	8/3/2021 14:55	Oxidation Reduction Potention	-160.85	mv
GS-AP-MW-16S	8/3/2021 14:55	pH	11.45	SU
GS-AP-MW-16S	8/3/2021 14:55	Temperature	20.66	C
GS-AP-MW-16S	8/3/2021 14:55	Turbidity	8.32	NTU
GS-AP-MW-16S	8/3/2021 15:00	Conductivity	1240.6	uS/cm
GS-AP-MW-16S	8/3/2021 15:00	DO	0.52	mg/L
GS-AP-MW-16S	8/3/2021 15:00	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:00	Oxidation Reduction Potention	-181.24	mv
GS-AP-MW-16S	8/3/2021 15:00	pH	11.44	SU
GS-AP-MW-16S	8/3/2021 15:00	Temperature	20.57	C
GS-AP-MW-16S	8/3/2021 15:00	Turbidity	14.2	NTU
GS-AP-MW-16S	8/3/2021 15:05	Conductivity	1111.9	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16S	8/3/2021 15:05	DO	0.4	mg/L
GS-AP-MW-16S	8/3/2021 15:05	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:05	Oxidation Reduction Potention	-196.92	mv
GS-AP-MW-16S	8/3/2021 15:05	pH	11.43	SU
GS-AP-MW-16S	8/3/2021 15:05	Temperature	20.55	C
GS-AP-MW-16S	8/3/2021 15:05	Turbidity	17.5	NTU
GS-AP-MW-16S	8/3/2021 15:10	Conductivity	1056.7	uS/cm
GS-AP-MW-16S	8/3/2021 15:10	DO	0.36	mg/L
GS-AP-MW-16S	8/3/2021 15:10	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:10	Oxidation Reduction Potention	-202.17	mv
GS-AP-MW-16S	8/3/2021 15:10	pH	11.42	SU
GS-AP-MW-16S	8/3/2021 15:10	Temperature	20.36	C
GS-AP-MW-16S	8/3/2021 15:10	Turbidity	19.5	NTU
GS-AP-MW-16S	8/3/2021 15:15	Conductivity	948.74	uS/cm
GS-AP-MW-16S	8/3/2021 15:15	DO	0.29	mg/L
GS-AP-MW-16S	8/3/2021 15:15	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:15	Oxidation Reduction Potention	-207.88	mv
GS-AP-MW-16S	8/3/2021 15:15	pH	11.4	SU
GS-AP-MW-16S	8/3/2021 15:15	Temperature	20.32	C
GS-AP-MW-16S	8/3/2021 15:15	Turbidity	24.8	NTU
GS-AP-MW-16S	8/3/2021 15:20	Conductivity	887.56	uS/cm
GS-AP-MW-16S	8/3/2021 15:20	DO	0.29	mg/L
GS-AP-MW-16S	8/3/2021 15:20	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:20	Oxidation Reduction Potention	-212.56	mv
GS-AP-MW-16S	8/3/2021 15:20	pH	11.37	SU
GS-AP-MW-16S	8/3/2021 15:20	Temperature	20.75	C
GS-AP-MW-16S	8/3/2021 15:20	Turbidity	23.9	NTU
GS-AP-MW-16S	8/3/2021 15:25	Conductivity	813.4	uS/cm
GS-AP-MW-16S	8/3/2021 15:25	DO	0.27	mg/L
GS-AP-MW-16S	8/3/2021 15:25	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:25	Oxidation Reduction Potention	-222.28	mv
GS-AP-MW-16S	8/3/2021 15:25	pH	11.33	SU
GS-AP-MW-16S	8/3/2021 15:25	Temperature	20.49	C
GS-AP-MW-16S	8/3/2021 15:25	Turbidity	21.7	NTU
GS-AP-MW-16S	8/3/2021 15:30	Conductivity	730.19	uS/cm
GS-AP-MW-16S	8/3/2021 15:30	DO	0.24	mg/L
GS-AP-MW-16S	8/3/2021 15:30	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:30	Oxidation Reduction Potention	-234.19	mv
GS-AP-MW-16S	8/3/2021 15:30	pH	11.22	SU
GS-AP-MW-16S	8/3/2021 15:30	Temperature	20.54	C
GS-AP-MW-16S	8/3/2021 15:30	Turbidity	18.4	NTU
GS-AP-MW-16S	8/3/2021 15:35	Conductivity	679.69	uS/cm
GS-AP-MW-16S	8/3/2021 15:35	DO	0.23	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16S	8/3/2021 15:35	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:35	Oxidation Reduction Potention	-240.9	mv
GS-AP-MW-16S	8/3/2021 15:35	pH	11.05	SU
GS-AP-MW-16S	8/3/2021 15:35	Temperature	20.9	C
GS-AP-MW-16S	8/3/2021 15:35	Turbidity	15.7	NTU
GS-AP-MW-16S	8/3/2021 15:40	Conductivity	656.69	uS/cm
GS-AP-MW-16S	8/3/2021 15:40	DO	0.21	mg/L
GS-AP-MW-16S	8/3/2021 15:40	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:40	Oxidation Reduction Potention	-244.43	mv
GS-AP-MW-16S	8/3/2021 15:40	pH	10.89	SU
GS-AP-MW-16S	8/3/2021 15:40	Temperature	20.94	C
GS-AP-MW-16S	8/3/2021 15:40	Turbidity	12.9	NTU
GS-AP-MW-16S	8/3/2021 15:45	Conductivity	647.41	uS/cm
GS-AP-MW-16S	8/3/2021 15:45	DO	0.2	mg/L
GS-AP-MW-16S	8/3/2021 15:45	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:45	Oxidation Reduction Potention	-245.27	mv
GS-AP-MW-16S	8/3/2021 15:45	pH	10.82	SU
GS-AP-MW-16S	8/3/2021 15:45	Temperature	20.66	C
GS-AP-MW-16S	8/3/2021 15:45	Turbidity	11.1	NTU
GS-AP-MW-16S	8/3/2021 15:50	Conductivity	643.41	uS/cm
GS-AP-MW-16S	8/3/2021 15:50	DO	0.22	mg/L
GS-AP-MW-16S	8/3/2021 15:50	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:50	Oxidation Reduction Potention	-244.83	mv
GS-AP-MW-16S	8/3/2021 15:50	pH	10.72	SU
GS-AP-MW-16S	8/3/2021 15:50	Temperature	20.55	C
GS-AP-MW-16S	8/3/2021 15:50	Turbidity	10.71	NTU
GS-AP-MW-16S	8/3/2021 15:55	Conductivity	652.38	uS/cm
GS-AP-MW-16S	8/3/2021 15:55	DO	0.24	mg/L
GS-AP-MW-16S	8/3/2021 15:55	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 15:55	Oxidation Reduction Potention	-243.73	mv
GS-AP-MW-16S	8/3/2021 15:55	pH	10.72	SU
GS-AP-MW-16S	8/3/2021 15:55	Temperature	20.6	C
GS-AP-MW-16S	8/3/2021 15:55	Turbidity	10.15	NTU
GS-AP-MW-16S	8/3/2021 16:00	Conductivity	647.1	uS/cm
GS-AP-MW-16S	8/3/2021 16:00	DO	0.28	mg/L
GS-AP-MW-16S	8/3/2021 16:00	Depth to Water Detail	58.61	ft
GS-AP-MW-16S	8/3/2021 16:00	Oxidation Reduction Potention	-241.52	mv
GS-AP-MW-16S	8/3/2021 16:00	pH	10.68	SU
GS-AP-MW-16S	8/3/2021 16:00	Temperature	20.9	C
GS-AP-MW-16S	8/3/2021 16:00	Turbidity	9.42	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21	8/4/2021 9:18	Conductivity	1054.02	uS/cm
GS-AP-MW-21	8/4/2021 9:18	DO	4.23	mg/L
GS-AP-MW-21	8/4/2021 9:18	Depth to Water Detail	165.7	ft
GS-AP-MW-21	8/4/2021 9:18	Oxidation Reduction Potention	-152.63	mv
GS-AP-MW-21	8/4/2021 9:18	pH	9.89	SU
GS-AP-MW-21	8/4/2021 9:18	Temperature	22.36	C
GS-AP-MW-21	8/4/2021 9:18	Turbidity	12.9	NTU
GS-AP-MW-21	8/4/2021 9:23	Conductivity	1156.15	uS/cm
GS-AP-MW-21	8/4/2021 9:23	DO	1.56	mg/L
GS-AP-MW-21	8/4/2021 9:23	Depth to Water Detail	165.77	ft
GS-AP-MW-21	8/4/2021 9:23	Oxidation Reduction Potention	-205.41	mv
GS-AP-MW-21	8/4/2021 9:23	pH	10.61	SU
GS-AP-MW-21	8/4/2021 9:23	Temperature	22.63	C
GS-AP-MW-21	8/4/2021 9:23	Turbidity	3.98	NTU
GS-AP-MW-21	8/4/2021 9:28	Conductivity	1271.3	uS/cm
GS-AP-MW-21	8/4/2021 9:28	DO	0.83	mg/L
GS-AP-MW-21	8/4/2021 9:28	Depth to Water Detail	165.82	ft
GS-AP-MW-21	8/4/2021 9:28	Oxidation Reduction Potention	-233.35	mv
GS-AP-MW-21	8/4/2021 9:28	pH	11	SU
GS-AP-MW-21	8/4/2021 9:28	Temperature	22.41	C
GS-AP-MW-21	8/4/2021 9:28	Turbidity	2.34	NTU
GS-AP-MW-21	8/4/2021 9:33	Conductivity	1286.53	uS/cm
GS-AP-MW-21	8/4/2021 9:33	DO	0.63	mg/L
GS-AP-MW-21	8/4/2021 9:33	Depth to Water Detail	165.85	ft
GS-AP-MW-21	8/4/2021 9:33	Oxidation Reduction Potention	-245.9	mv
GS-AP-MW-21	8/4/2021 9:33	pH	11.02	SU
GS-AP-MW-21	8/4/2021 9:33	Temperature	22.69	C
GS-AP-MW-21	8/4/2021 9:33	Turbidity	2.37	NTU
GS-AP-MW-21	8/4/2021 9:38	Conductivity	1284.66	uS/cm
GS-AP-MW-21	8/4/2021 9:38	DO	0.58	mg/L
GS-AP-MW-21	8/4/2021 9:38	Depth to Water Detail	165.87	ft
GS-AP-MW-21	8/4/2021 9:38	Oxidation Reduction Potention	-252.03	mv
GS-AP-MW-21	8/4/2021 9:38	pH	11	SU
GS-AP-MW-21	8/4/2021 9:38	Temperature	22.7	C
GS-AP-MW-21	8/4/2021 9:38	Turbidity	1.2	NTU
GS-AP-MW-21	8/4/2021 9:43	Conductivity	1261.89	uS/cm
GS-AP-MW-21	8/4/2021 9:43	DO	0.59	mg/L
GS-AP-MW-21	8/4/2021 9:43	Depth to Water Detail	165.89	ft
GS-AP-MW-21	8/4/2021 9:43	Oxidation Reduction Potention	-256.03	mv
GS-AP-MW-21	8/4/2021 9:43	pH	10.95	SU
GS-AP-MW-21	8/4/2021 9:43	Temperature	22.72	C
GS-AP-MW-21	8/4/2021 9:43	Turbidity	1.02	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-29H	8/4/2021 13:23	Conductivity	784.88	uS/cm
GS-AP-MW-29H	8/4/2021 13:23	DO	0.46	mg/L
GS-AP-MW-29H	8/4/2021 13:23	Depth to Water Detail	88.71	ft
GS-AP-MW-29H	8/4/2021 13:23	Oxidation Reduction Potention	-171.87	mv
GS-AP-MW-29H	8/4/2021 13:23	pH	7.65	SU
GS-AP-MW-29H	8/4/2021 13:23	Temperature	20.12	C
GS-AP-MW-29H	8/4/2021 13:23	Turbidity	1.42	NTU
GS-AP-MW-29H	8/4/2021 13:28	Conductivity	772.3	uS/cm
GS-AP-MW-29H	8/4/2021 13:28	DO	0.33	mg/L
GS-AP-MW-29H	8/4/2021 13:28	Depth to Water Detail	89.12	ft
GS-AP-MW-29H	8/4/2021 13:28	Oxidation Reduction Potention	-172.54	mv
GS-AP-MW-29H	8/4/2021 13:28	pH	7.68	SU
GS-AP-MW-29H	8/4/2021 13:28	Temperature	20.14	C
GS-AP-MW-29H	8/4/2021 13:28	Turbidity	1.59	NTU
GS-AP-MW-29H	8/4/2021 13:33	Conductivity	733.56	uS/cm
GS-AP-MW-29H	8/4/2021 13:33	DO	0.31	mg/L
GS-AP-MW-29H	8/4/2021 13:33	Depth to Water Detail	89.42	ft
GS-AP-MW-29H	8/4/2021 13:33	Oxidation Reduction Potention	-177.03	mv
GS-AP-MW-29H	8/4/2021 13:33	pH	7.68	SU
GS-AP-MW-29H	8/4/2021 13:33	Temperature	19.97	C
GS-AP-MW-29H	8/4/2021 13:33	Turbidity	1.15	NTU
GS-AP-MW-29H	8/4/2021 13:38	Conductivity	704.27	uS/cm
GS-AP-MW-29H	8/4/2021 13:38	DO	0.32	mg/L
GS-AP-MW-29H	8/4/2021 13:38	Depth to Water Detail	89.55	ft
GS-AP-MW-29H	8/4/2021 13:38	Oxidation Reduction Potention	-181.59	mv
GS-AP-MW-29H	8/4/2021 13:38	pH	7.7	SU
GS-AP-MW-29H	8/4/2021 13:38	Temperature	19.8	C
GS-AP-MW-29H	8/4/2021 13:38	Turbidity	1.04	NTU
GS-AP-MW-29H	8/4/2021 13:43	Conductivity	684.04	uS/cm
GS-AP-MW-29H	8/4/2021 13:43	DO	0.32	mg/L
GS-AP-MW-29H	8/4/2021 13:43	Depth to Water Detail	89.7	ft
GS-AP-MW-29H	8/4/2021 13:43	Oxidation Reduction Potention	-185.08	mv
GS-AP-MW-29H	8/4/2021 13:43	pH	7.69	SU
GS-AP-MW-29H	8/4/2021 13:43	Temperature	19.87	C
GS-AP-MW-29H	8/4/2021 13:43	Turbidity	0.97	NTU
GS-AP-MW-29H	8/4/2021 13:48	Conductivity	670.79	uS/cm
GS-AP-MW-29H	8/4/2021 13:48	DO	0.32	mg/L
GS-AP-MW-29H	8/4/2021 13:48	Depth to Water Detail	89.83	ft
GS-AP-MW-29H	8/4/2021 13:48	Oxidation Reduction Potention	-187.1	mv
GS-AP-MW-29H	8/4/2021 13:48	pH	7.68	SU
GS-AP-MW-29H	8/4/2021 13:48	Temperature	20.23	C
GS-AP-MW-29H	8/4/2021 13:48	Turbidity	1.3	NTU
GS-AP-MW-29H	8/4/2021 13:53	Conductivity	659.55	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-29H	8/4/2021 13:53	DO	0.32	mg/L
GS-AP-MW-29H	8/4/2021 13:53	Depth to Water Detail	89.88	ft
GS-AP-MW-29H	8/4/2021 13:53	Oxidation Reduction Potention	-188.72	mv
GS-AP-MW-29H	8/4/2021 13:53	pH	7.68	SU
GS-AP-MW-29H	8/4/2021 13:53	Temperature	20.05	C
GS-AP-MW-29H	8/4/2021 13:53	Turbidity	1.15	NTU
GS-AP-MW-30HA	8/2/2021 10:55	Conductivity	850.09	uS/cm
GS-AP-MW-30HA	8/2/2021 10:55	DO	4.93	mg/L
GS-AP-MW-30HA	8/2/2021 10:55	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 10:55	Oxidation Reduction Potention	-37.41	mv
GS-AP-MW-30HA	8/2/2021 10:55	pH	7.3	SU
GS-AP-MW-30HA	8/2/2021 10:55	Temperature	21.94	C
GS-AP-MW-30HA	8/2/2021 10:55	Turbidity	14.8	NTU
GS-AP-MW-30HA	8/2/2021 11:00	Conductivity	851.93	uS/cm
GS-AP-MW-30HA	8/2/2021 11:00	DO	3.04	mg/L
GS-AP-MW-30HA	8/2/2021 11:00	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:00	Oxidation Reduction Potention	-47.18	mv
GS-AP-MW-30HA	8/2/2021 11:00	pH	7.18	SU
GS-AP-MW-30HA	8/2/2021 11:00	Temperature	21.64	C
GS-AP-MW-30HA	8/2/2021 11:00	Turbidity	8.56	NTU
GS-AP-MW-30HA	8/2/2021 11:05	Conductivity	839.93	uS/cm
GS-AP-MW-30HA	8/2/2021 11:05	DO	1.85	mg/L
GS-AP-MW-30HA	8/2/2021 11:05	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:05	Oxidation Reduction Potention	-138.54	mv
GS-AP-MW-30HA	8/2/2021 11:05	pH	7.2	SU
GS-AP-MW-30HA	8/2/2021 11:05	Temperature	21.33	C
GS-AP-MW-30HA	8/2/2021 11:05	Turbidity	1.66	NTU
GS-AP-MW-30HA	8/2/2021 11:10	Conductivity	824.57	uS/cm
GS-AP-MW-30HA	8/2/2021 11:10	DO	1.18	mg/L
GS-AP-MW-30HA	8/2/2021 11:10	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:10	Oxidation Reduction Potention	-207.13	mv
GS-AP-MW-30HA	8/2/2021 11:10	pH	7.37	SU
GS-AP-MW-30HA	8/2/2021 11:10	Temperature	21	C
GS-AP-MW-30HA	8/2/2021 11:10	Turbidity	1.2	NTU
GS-AP-MW-30HA	8/2/2021 11:15	Conductivity	849.01	uS/cm
GS-AP-MW-30HA	8/2/2021 11:15	DO	0.79	mg/L
GS-AP-MW-30HA	8/2/2021 11:15	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:15	Oxidation Reduction Potention	-237.34	mv
GS-AP-MW-30HA	8/2/2021 11:15	pH	7.5	SU
GS-AP-MW-30HA	8/2/2021 11:15	Temperature	20.73	C
GS-AP-MW-30HA	8/2/2021 11:15	Turbidity	15.6	NTU
GS-AP-MW-30HA	8/2/2021 11:20	Conductivity	845.88	uS/cm
GS-AP-MW-30HA	8/2/2021 11:20	DO	0.67	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-30HA	8/2/2021 11:20	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:20	Oxidation Reduction Potention	-230.31	mv
GS-AP-MW-30HA	8/2/2021 11:20	pH	7.47	SU
GS-AP-MW-30HA	8/2/2021 11:20	Temperature	20.54	C
GS-AP-MW-30HA	8/2/2021 11:20	Turbidity	19.3	NTU
GS-AP-MW-30HA	8/2/2021 11:25	Conductivity	829.75	uS/cm
GS-AP-MW-30HA	8/2/2021 11:25	DO	0.68	mg/L
GS-AP-MW-30HA	8/2/2021 11:25	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:25	Oxidation Reduction Potention	-207.6	mv
GS-AP-MW-30HA	8/2/2021 11:25	pH	7.41	SU
GS-AP-MW-30HA	8/2/2021 11:25	Temperature	20.11	C
GS-AP-MW-30HA	8/2/2021 11:25	Turbidity	29.9	NTU
GS-AP-MW-30HA	8/2/2021 11:30	Conductivity	828.19	uS/cm
GS-AP-MW-30HA	8/2/2021 11:30	DO	1.01	mg/L
GS-AP-MW-30HA	8/2/2021 11:30	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:30	Oxidation Reduction Potention	-184.44	mv
GS-AP-MW-30HA	8/2/2021 11:30	pH	7.38	SU
GS-AP-MW-30HA	8/2/2021 11:30	Temperature	20.01	C
GS-AP-MW-30HA	8/2/2021 11:30	Turbidity	34	NTU
GS-AP-MW-30HA	8/2/2021 11:35	Conductivity	839.47	uS/cm
GS-AP-MW-30HA	8/2/2021 11:35	DO	1.34	mg/L
GS-AP-MW-30HA	8/2/2021 11:35	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:35	Oxidation Reduction Potention	-169.4	mv
GS-AP-MW-30HA	8/2/2021 11:35	pH	7.35	SU
GS-AP-MW-30HA	8/2/2021 11:35	Temperature	19.79	C
GS-AP-MW-30HA	8/2/2021 11:35	Turbidity	29.8	NTU
GS-AP-MW-30HA	8/2/2021 11:40	Conductivity	852.4	uS/cm
GS-AP-MW-30HA	8/2/2021 11:40	DO	1.32	mg/L
GS-AP-MW-30HA	8/2/2021 11:40	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:40	Oxidation Reduction Potention	-161.77	mv
GS-AP-MW-30HA	8/2/2021 11:40	pH	7.32	SU
GS-AP-MW-30HA	8/2/2021 11:40	Temperature	19.74	C
GS-AP-MW-30HA	8/2/2021 11:40	Turbidity	24.5	NTU
GS-AP-MW-30HA	8/2/2021 11:45	Conductivity	862.37	uS/cm
GS-AP-MW-30HA	8/2/2021 11:45	DO	1.19	mg/L
GS-AP-MW-30HA	8/2/2021 11:45	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:45	Oxidation Reduction Potention	-155.67	mv
GS-AP-MW-30HA	8/2/2021 11:45	pH	7.28	SU
GS-AP-MW-30HA	8/2/2021 11:45	Temperature	19.75	C
GS-AP-MW-30HA	8/2/2021 11:45	Turbidity	17.5	NTU
GS-AP-MW-30HA	8/2/2021 11:50	Conductivity	870.73	uS/cm
GS-AP-MW-30HA	8/2/2021 11:50	DO	1.14	mg/L
GS-AP-MW-30HA	8/2/2021 11:50	Depth to Water Detail	305.98	ft

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-30HA	8/2/2021 11:50	Oxidation Reduction Potention	-155.69	mv
GS-AP-MW-30HA	8/2/2021 11:50	pH	7.29	SU
GS-AP-MW-30HA	8/2/2021 11:50	Temperature	19.47	C
GS-AP-MW-30HA	8/2/2021 11:50	Turbidity	12.6	NTU
GS-AP-MW-30HA	8/2/2021 11:55	Conductivity	881.2	uS/cm
GS-AP-MW-30HA	8/2/2021 11:55	DO	1.05	mg/L
GS-AP-MW-30HA	8/2/2021 11:55	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 11:55	Oxidation Reduction Potention	-155.07	mv
GS-AP-MW-30HA	8/2/2021 11:55	pH	7.28	SU
GS-AP-MW-30HA	8/2/2021 11:55	Temperature	19.42	C
GS-AP-MW-30HA	8/2/2021 11:55	Turbidity	9.82	NTU
GS-AP-MW-30HA	8/2/2021 12:00	Conductivity	888.47	uS/cm
GS-AP-MW-30HA	8/2/2021 12:00	DO	1.01	mg/L
GS-AP-MW-30HA	8/2/2021 12:00	Depth to Water Detail	305.98	ft
GS-AP-MW-30HA	8/2/2021 12:00	Oxidation Reduction Potention	-152.96	mv
GS-AP-MW-30HA	8/2/2021 12:00	pH	7.27	SU
GS-AP-MW-30HA	8/2/2021 12:00	Temperature	19.27	C
GS-AP-MW-30HA	8/2/2021 12:00	Turbidity	7.97	NTU
GS-AP-MW-31H	8/2/2021 13:18	Conductivity	504.83	uS/cm
GS-AP-MW-31H	8/2/2021 13:18	DO	1.38	mg/L
GS-AP-MW-31H	8/2/2021 13:18	Depth to Water Detail	236.34	ft
GS-AP-MW-31H	8/2/2021 13:18	Oxidation Reduction Potention	-138.89	mv
GS-AP-MW-31H	8/2/2021 13:18	pH	7.45	SU
GS-AP-MW-31H	8/2/2021 13:18	Temperature	22.43	C
GS-AP-MW-31H	8/2/2021 13:18	Turbidity	2.64	NTU
GS-AP-MW-31H	8/2/2021 13:23	Conductivity	574.22	uS/cm
GS-AP-MW-31H	8/2/2021 13:23	DO	0.33	mg/L
GS-AP-MW-31H	8/2/2021 13:23	Depth to Water Detail	236.72	ft
GS-AP-MW-31H	8/2/2021 13:23	Oxidation Reduction Potention	-259.7	mv
GS-AP-MW-31H	8/2/2021 13:23	pH	8.23	SU
GS-AP-MW-31H	8/2/2021 13:23	Temperature	22.42	C
GS-AP-MW-31H	8/2/2021 13:23	Turbidity	3.16	NTU
GS-AP-MW-31H	8/2/2021 13:28	Conductivity	646.63	uS/cm
GS-AP-MW-31H	8/2/2021 13:28	DO	0.2	mg/L
GS-AP-MW-31H	8/2/2021 13:28	Depth to Water Detail	236.94	ft
GS-AP-MW-31H	8/2/2021 13:28	Oxidation Reduction Potention	-276.23	mv
GS-AP-MW-31H	8/2/2021 13:28	pH	8.52	SU
GS-AP-MW-31H	8/2/2021 13:28	Temperature	22.37	C
GS-AP-MW-31H	8/2/2021 13:28	Turbidity	4.31	NTU
GS-AP-MW-31H	8/2/2021 13:33	Conductivity	671.49	uS/cm
GS-AP-MW-31H	8/2/2021 13:33	DO	0.16	mg/L
GS-AP-MW-31H	8/2/2021 13:33	Depth to Water Detail	237.17	ft
GS-AP-MW-31H	8/2/2021 13:33	Oxidation Reduction Potention	-282.38	mv

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-31H	8/2/2021 13:33	pH	8.54	SU
GS-AP-MW-31H	8/2/2021 13:33	Temperature	22.15	C
GS-AP-MW-31H	8/2/2021 13:33	Turbidity	4.16	NTU
GS-AP-MW-31H	8/2/2021 13:38	Conductivity	669.76	uS/cm
GS-AP-MW-31H	8/2/2021 13:38	DO	0.14	mg/L
GS-AP-MW-31H	8/2/2021 13:38	Depth to Water Detail	237.33	ft
GS-AP-MW-31H	8/2/2021 13:38	Oxidation Reduction Potention	-288.99	mv
GS-AP-MW-31H	8/2/2021 13:38	pH	8.58	SU
GS-AP-MW-31H	8/2/2021 13:38	Temperature	22.25	C
GS-AP-MW-31H	8/2/2021 13:38	Turbidity	3.82	NTU
GS-AP-MW-31H	8/2/2021 13:43	Conductivity	656.36	uS/cm
GS-AP-MW-31H	8/2/2021 13:43	DO	0.11	mg/L
GS-AP-MW-31H	8/2/2021 13:43	Depth to Water Detail	237.49	ft
GS-AP-MW-31H	8/2/2021 13:43	Oxidation Reduction Potention	-294.94	mv
GS-AP-MW-31H	8/2/2021 13:43	pH	8.59	SU
GS-AP-MW-31H	8/2/2021 13:43	Temperature	22.2	C
GS-AP-MW-31H	8/2/2021 13:43	Turbidity	2.39	NTU
GS-AP-MW-31H	8/2/2021 13:48	Conductivity	639.48	uS/cm
GS-AP-MW-31H	8/2/2021 13:48	DO	0.11	mg/L
GS-AP-MW-31H	8/2/2021 13:48	Depth to Water Detail	237.65	ft
GS-AP-MW-31H	8/2/2021 13:48	Oxidation Reduction Potention	-299.53	mv
GS-AP-MW-31H	8/2/2021 13:48	pH	8.64	SU
GS-AP-MW-31H	8/2/2021 13:48	Temperature	22.42	C
GS-AP-MW-31H	8/2/2021 13:48	Turbidity	2.43	NTU
GS-AP-MW-31H	8/2/2021 13:53	Conductivity	624.01	uS/cm
GS-AP-MW-31H	8/2/2021 13:53	DO	0.11	mg/L
GS-AP-MW-31H	8/2/2021 13:53	Depth to Water Detail	237.72	ft
GS-AP-MW-31H	8/2/2021 13:53	Oxidation Reduction Potention	-301.38	mv
GS-AP-MW-31H	8/2/2021 13:53	pH	8.65	SU
GS-AP-MW-31H	8/2/2021 13:53	Temperature	22.66	C
GS-AP-MW-31H	8/2/2021 13:53	Turbidity	2.03	NTU
GS-AP-MW-31H	8/2/2021 13:58	Conductivity	610.48	uS/cm
GS-AP-MW-31H	8/2/2021 13:58	DO	0.09	mg/L
GS-AP-MW-31H	8/2/2021 13:58	Depth to Water Detail	237.78	ft
GS-AP-MW-31H	8/2/2021 13:58	Oxidation Reduction Potention	-305.18	mv
GS-AP-MW-31H	8/2/2021 13:58	pH	8.69	SU
GS-AP-MW-31H	8/2/2021 13:58	Temperature	22.51	C
GS-AP-MW-31H	8/2/2021 13:58	Turbidity	1.98	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-36H	8/4/2021 12:09	Conductivity	465.96	uS/cm
GS-AP-MW-36H	8/4/2021 12:09	DO	1.47	mg/L
GS-AP-MW-36H	8/4/2021 12:09	Depth to Water Detail	237.8	ft
GS-AP-MW-36H	8/4/2021 12:09	Oxidation Reduction Potention	-76.19	mv
GS-AP-MW-36H	8/4/2021 12:09	pH	7.39	SU
GS-AP-MW-36H	8/4/2021 12:09	Temperature	21.72	C
GS-AP-MW-36H	8/4/2021 12:09	Turbidity	2.38	NTU
GS-AP-MW-36H	8/4/2021 12:13	Conductivity	723.58	uS/cm
GS-AP-MW-36H	8/4/2021 12:13	DO	0.81	mg/L
GS-AP-MW-36H	8/4/2021 12:13	Depth to Water Detail	238.65	ft
GS-AP-MW-36H	8/4/2021 12:13	Oxidation Reduction Potention	-160.68	mv
GS-AP-MW-36H	8/4/2021 12:13	pH	8.19	SU
GS-AP-MW-36H	8/4/2021 12:13	Temperature	21.18	C
GS-AP-MW-36H	8/4/2021 12:13	Turbidity	4.5	NTU
GS-AP-MW-36H	8/4/2021 12:18	Conductivity	889.2	uS/cm
GS-AP-MW-36H	8/4/2021 12:18	DO	0.61	mg/L
GS-AP-MW-36H	8/4/2021 12:18	Depth to Water Detail	239.15	ft
GS-AP-MW-36H	8/4/2021 12:18	Oxidation Reduction Potention	-104.51	mv
GS-AP-MW-36H	8/4/2021 12:18	pH	8.32	SU
GS-AP-MW-36H	8/4/2021 12:18	Temperature	21.34	C
GS-AP-MW-36H	8/4/2021 12:18	Turbidity	4.23	NTU
GS-AP-MW-36H	8/4/2021 12:24	Conductivity	912.73	uS/cm
GS-AP-MW-36H	8/4/2021 12:24	DO	0.53	mg/L
GS-AP-MW-36H	8/4/2021 12:24	Depth to Water Detail	240.4	ft
GS-AP-MW-36H	8/4/2021 12:24	Oxidation Reduction Potention	-90.66	mv
GS-AP-MW-36H	8/4/2021 12:24	pH	8.33	SU
GS-AP-MW-36H	8/4/2021 12:24	Temperature	21.51	C
GS-AP-MW-36H	8/4/2021 12:24	Turbidity	3.52	NTU
GS-AP-MW-36H	8/4/2021 12:29	Conductivity	916.02	uS/cm
GS-AP-MW-36H	8/4/2021 12:29	DO	0.44	mg/L
GS-AP-MW-36H	8/4/2021 12:29	Depth to Water Detail	241.27	ft
GS-AP-MW-36H	8/4/2021 12:29	Oxidation Reduction Potention	-87.14	mv
GS-AP-MW-36H	8/4/2021 12:29	pH	8.38	SU
GS-AP-MW-36H	8/4/2021 12:29	Temperature	21.23	C
GS-AP-MW-36H	8/4/2021 12:29	Turbidity	3.1	NTU
GS-AP-MW-36H	8/4/2021 12:34	Conductivity	915.22	uS/cm
GS-AP-MW-36H	8/4/2021 12:34	DO	0.44	mg/L
GS-AP-MW-36H	8/4/2021 12:34	Depth to Water Detail	241.95	ft
GS-AP-MW-36H	8/4/2021 12:34	Oxidation Reduction Potention	-85.44	mv
GS-AP-MW-36H	8/4/2021 12:34	pH	8.38	SU
GS-AP-MW-36H	8/4/2021 12:34	Temperature	21.02	C
GS-AP-MW-36H	8/4/2021 12:34	Turbidity	2.51	NTU
GS-AP-MW-36H	8/4/2021 12:39	Conductivity	914.03	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-36H	8/4/2021 12:39	DO	0.59	mg/L
GS-AP-MW-36H	8/4/2021 12:39	Depth to Water Detail	242.25	ft
GS-AP-MW-36H	8/4/2021 12:39	Oxidation Reduction Potention	-81.95	mv
GS-AP-MW-36H	8/4/2021 12:39	pH	8.36	SU
GS-AP-MW-36H	8/4/2021 12:39	Temperature	22.39	C
GS-AP-MW-36H	8/4/2021 12:39	Turbidity	2.98	NTU
GS-AP-MW-36H	8/4/2021 12:44	Conductivity	908.4	uS/cm
GS-AP-MW-36H	8/4/2021 12:44	DO	0.62	mg/L
GS-AP-MW-36H	8/4/2021 12:44	Depth to Water Detail	242.5	ft
GS-AP-MW-36H	8/4/2021 12:44	Oxidation Reduction Potention	-79.09	mv
GS-AP-MW-36H	8/4/2021 12:44	pH	8.35	SU
GS-AP-MW-36H	8/4/2021 12:44	Temperature	22.6	C
GS-AP-MW-36H	8/4/2021 12:44	Turbidity	2.6	NTU
GS-AP-MW-36H	8/4/2021 12:49	Conductivity	901.68	uS/cm
GS-AP-MW-36H	8/4/2021 12:49	DO	0.62	mg/L
GS-AP-MW-36H	8/4/2021 12:49	Depth to Water Detail	242.72	ft
GS-AP-MW-36H	8/4/2021 12:49	Oxidation Reduction Potention	-76.8	mv
GS-AP-MW-36H	8/4/2021 12:49	pH	8.35	SU
GS-AP-MW-36H	8/4/2021 12:49	Temperature	22.64	C
GS-AP-MW-36H	8/4/2021 12:49	Turbidity	3.05	NTU
GS-AP-MW-36H	8/4/2021 12:54	Conductivity	888.11	uS/cm
GS-AP-MW-36H	8/4/2021 12:54	DO	0.61	mg/L
GS-AP-MW-36H	8/4/2021 12:54	Depth to Water Detail	242.95	ft
GS-AP-MW-36H	8/4/2021 12:54	Oxidation Reduction Potention	-75.93	mv
GS-AP-MW-36H	8/4/2021 12:54	pH	8.34	SU
GS-AP-MW-36H	8/4/2021 12:54	Temperature	22.74	C
GS-AP-MW-36H	8/4/2021 12:54	Turbidity	2.33	NTU
GS-AP-MW-36H	8/4/2021 12:59	Conductivity	875.83	uS/cm
GS-AP-MW-36H	8/4/2021 12:59	DO	0.61	mg/L
GS-AP-MW-36H	8/4/2021 12:59	Depth to Water Detail	243.15	ft
GS-AP-MW-36H	8/4/2021 12:59	Oxidation Reduction Potention	-75.69	mv
GS-AP-MW-36H	8/4/2021 12:59	pH	8.35	SU
GS-AP-MW-36H	8/4/2021 12:59	Temperature	22.74	C
GS-AP-MW-36H	8/4/2021 12:59	Turbidity	2.26	NTU
GS-AP-MW-36H	8/4/2021 13:04	Conductivity	858.04	uS/cm
GS-AP-MW-36H	8/4/2021 13:04	DO	0.59	mg/L
GS-AP-MW-36H	8/4/2021 13:04	Depth to Water Detail	243.26	ft
GS-AP-MW-36H	8/4/2021 13:04	Oxidation Reduction Potention	-75.23	mv
GS-AP-MW-36H	8/4/2021 13:04	pH	8.35	SU
GS-AP-MW-36H	8/4/2021 13:04	Temperature	22.75	C
GS-AP-MW-36H	8/4/2021 13:04	Turbidity	2.04	NTU
GS-AP-MW-36H	8/4/2021 13:09	Conductivity	837.98	uS/cm
GS-AP-MW-36H	8/4/2021 13:09	DO	0.6	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-36H	8/4/2021 13:09	Depth to Water Detail	243.45	ft
GS-AP-MW-36H	8/4/2021 13:09	Oxidation Reduction Potention	-77.35	mv
GS-AP-MW-36H	8/4/2021 13:09	pH	8.37	SU
GS-AP-MW-36H	8/4/2021 13:09	Temperature	22.8	C
GS-AP-MW-36H	8/4/2021 13:09	Turbidity	1.89	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-9V	8/10/2021 11:36	Conductivity	786.67	uS/cm
GS-AP-MW-9V	8/10/2021 11:36	DO	0.86	mg/L
GS-AP-MW-9V	8/10/2021 11:36	Depth to Water Detail	55.32	ft
GS-AP-MW-9V	8/10/2021 11:36	Oxidation Reduction Potention	-186.86	mv
GS-AP-MW-9V	8/10/2021 11:36	pH	7.01	SU
GS-AP-MW-9V	8/10/2021 11:36	Temperature	30.06	C
GS-AP-MW-9V	8/10/2021 11:36	Turbidity	1.46	NTU
GS-AP-MW-9V	8/10/2021 11:41	Conductivity	1138.71	uS/cm
GS-AP-MW-9V	8/10/2021 11:41	DO	0.13	mg/L
GS-AP-MW-9V	8/10/2021 11:41	Depth to Water Detail	56.24	ft
GS-AP-MW-9V	8/10/2021 11:41	Oxidation Reduction Potention	-208.74	mv
GS-AP-MW-9V	8/10/2021 11:41	pH	7.17	SU
GS-AP-MW-9V	8/10/2021 11:41	Temperature	20.37	C
GS-AP-MW-9V	8/10/2021 11:41	Turbidity	3.07	NTU
GS-AP-MW-9V	8/10/2021 11:46	Conductivity	1116.51	uS/cm
GS-AP-MW-9V	8/10/2021 11:46	DO	0.11	mg/L
GS-AP-MW-9V	8/10/2021 11:46	Depth to Water Detail	57.54	ft
GS-AP-MW-9V	8/10/2021 11:46	Oxidation Reduction Potention	-211.21	mv
GS-AP-MW-9V	8/10/2021 11:46	pH	7.12	SU
GS-AP-MW-9V	8/10/2021 11:46	Temperature	20.36	C
GS-AP-MW-9V	8/10/2021 11:46	Turbidity	1.71	NTU
GS-AP-MW-9V	8/10/2021 11:51	Conductivity	1064.87	uS/cm
GS-AP-MW-9V	8/10/2021 11:51	DO	0.1	mg/L
GS-AP-MW-9V	8/10/2021 11:51	Depth to Water Detail	58.62	ft
GS-AP-MW-9V	8/10/2021 11:51	Oxidation Reduction Potention	-216.68	mv
GS-AP-MW-9V	8/10/2021 11:51	pH	7.11	SU
GS-AP-MW-9V	8/10/2021 11:51	Temperature	20.22	C
GS-AP-MW-9V	8/10/2021 11:51	Turbidity	1.46	NTU
GS-AP-MW-9V	8/10/2021 11:56	Conductivity	950.55	uS/cm
GS-AP-MW-9V	8/10/2021 11:56	DO	0.14	mg/L
GS-AP-MW-9V	8/10/2021 11:56	Depth to Water Detail	58.92	ft
GS-AP-MW-9V	8/10/2021 11:56	Oxidation Reduction Potention	-225.27	mv
GS-AP-MW-9V	8/10/2021 11:56	pH	7.07	SU
GS-AP-MW-9V	8/10/2021 11:56	Temperature	21.34	C
GS-AP-MW-9V	8/10/2021 11:56	Turbidity	1.36	NTU
GS-AP-MW-9V	8/10/2021 12:01	Conductivity	909.47	uS/cm
GS-AP-MW-9V	8/10/2021 12:01	DO	0.14	mg/L
GS-AP-MW-9V	8/10/2021 12:01	Depth to Water Detail	59.18	ft
GS-AP-MW-9V	8/10/2021 12:01	Oxidation Reduction Potention	-233.65	mv
GS-AP-MW-9V	8/10/2021 12:01	pH	7.08	SU
GS-AP-MW-9V	8/10/2021 12:01	Temperature	21.41	C
GS-AP-MW-9V	8/10/2021 12:01	Turbidity	1.58	NTU
GS-AP-MW-9V	8/10/2021 12:06	Conductivity	848.31	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-9V	8/10/2021 12:06	DO	0.15	mg/L
GS-AP-MW-9V	8/10/2021 12:06	Depth to Water Detail	59.32	ft
GS-AP-MW-9V	8/10/2021 12:06	Oxidation Reduction Potention	-237.55	mv
GS-AP-MW-9V	8/10/2021 12:06	pH	7.09	SU
GS-AP-MW-9V	8/10/2021 12:06	Temperature	21.58	C
GS-AP-MW-9V	8/10/2021 12:06	Turbidity	1.36	NTU
GS-AP-MW-9V	8/10/2021 12:11	Conductivity	800.14	uS/cm
GS-AP-MW-9V	8/10/2021 12:11	DO	0.15	mg/L
GS-AP-MW-9V	8/10/2021 12:11	Depth to Water Detail	59.52	ft
GS-AP-MW-9V	8/10/2021 12:11	Oxidation Reduction Potention	-240.27	mv
GS-AP-MW-9V	8/10/2021 12:11	pH	7.1	SU
GS-AP-MW-9V	8/10/2021 12:11	Temperature	21.17	C
GS-AP-MW-9V	8/10/2021 12:11	Turbidity	1.44	NTU
GS-AP-MW-9V	8/10/2021 12:16	Conductivity	781.18	uS/cm
GS-AP-MW-9V	8/10/2021 12:16	DO	0.13	mg/L
GS-AP-MW-9V	8/10/2021 12:16	Depth to Water Detail	59.7	ft
GS-AP-MW-9V	8/10/2021 12:16	Oxidation Reduction Potention	-237.44	mv
GS-AP-MW-9V	8/10/2021 12:16	pH	7.06	SU
GS-AP-MW-9V	8/10/2021 12:16	Temperature	24.81	C
GS-AP-MW-9V	8/10/2021 12:16	Turbidity	1.58	NTU
GS-AP-MW-9V	8/10/2021 12:21	Conductivity	738.98	uS/cm
GS-AP-MW-9V	8/10/2021 12:21	DO	0.16	mg/L
GS-AP-MW-9V	8/10/2021 12:21	Depth to Water Detail	59.79	ft
GS-AP-MW-9V	8/10/2021 12:21	Oxidation Reduction Potention	-246.38	mv
GS-AP-MW-9V	8/10/2021 12:21	pH	7.15	SU
GS-AP-MW-9V	8/10/2021 12:21	Temperature	21.8	C
GS-AP-MW-9V	8/10/2021 12:21	Turbidity	1.71	NTU
GS-AP-MW-9V	8/10/2021 12:26	Conductivity	705.09	uS/cm
GS-AP-MW-9V	8/10/2021 12:26	DO	0.19	mg/L
GS-AP-MW-9V	8/10/2021 12:26	Depth to Water Detail	59.86	ft
GS-AP-MW-9V	8/10/2021 12:26	Oxidation Reduction Potention	-244.18	mv
GS-AP-MW-9V	8/10/2021 12:26	pH	7.16	SU
GS-AP-MW-9V	8/10/2021 12:26	Temperature	21.52	C
GS-AP-MW-9V	8/10/2021 12:26	Turbidity	1.64	NTU
GS-AP-MW-9V	8/10/2021 12:31	Conductivity	666.13	uS/cm
GS-AP-MW-9V	8/10/2021 12:31	DO	0.16	mg/L
GS-AP-MW-9V	8/10/2021 12:31	Depth to Water Detail	59.93	ft
GS-AP-MW-9V	8/10/2021 12:31	Oxidation Reduction Potention	-247.43	mv
GS-AP-MW-9V	8/10/2021 12:31	pH	7.15	SU
GS-AP-MW-9V	8/10/2021 12:31	Temperature	21.54	C
GS-AP-MW-9V	8/10/2021 12:31	Turbidity	1.77	NTU
GS-AP-MW-9V	8/10/2021 12:36	Conductivity	634.74	uS/cm
GS-AP-MW-9V	8/10/2021 12:36	DO	0.17	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-9V	8/10/2021 12:36	Depth to Water Detail	60.02	ft
GS-AP-MW-9V	8/10/2021 12:36	Oxidation Reduction Potention	-246.98	mv
GS-AP-MW-9V	8/10/2021 12:36	pH	7.15	SU
GS-AP-MW-9V	8/10/2021 12:36	Temperature	21.23	C
GS-AP-MW-9V	8/10/2021 12:36	Turbidity	1.79	NTU
GS-AP-MW-9V	8/10/2021 12:41	Conductivity	607.8	uS/cm
GS-AP-MW-9V	8/10/2021 12:41	DO	0.17	mg/L
GS-AP-MW-9V	8/10/2021 12:41	Depth to Water Detail	60.1	ft
GS-AP-MW-9V	8/10/2021 12:41	Oxidation Reduction Potention	-248.11	mv
GS-AP-MW-9V	8/10/2021 12:41	pH	7.15	SU
GS-AP-MW-9V	8/10/2021 12:41	Temperature	21.29	C
GS-AP-MW-9V	8/10/2021 12:41	Turbidity	1.87	NTU
GS-AP-MW-9V	8/10/2021 12:46	Conductivity	594.07	uS/cm
GS-AP-MW-9V	8/10/2021 12:46	DO	0.17	mg/L
GS-AP-MW-9V	8/10/2021 12:46	Depth to Water Detail	60.13	ft
GS-AP-MW-9V	8/10/2021 12:46	Oxidation Reduction Potention	-248.84	mv
GS-AP-MW-9V	8/10/2021 12:46	pH	7.14	SU
GS-AP-MW-9V	8/10/2021 12:46	Temperature	21.37	C
GS-AP-MW-9V	8/10/2021 12:46	Turbidity	1.54	NTU
GS-AP-MW-9V	8/10/2021 12:51	Conductivity	577.12	uS/cm
GS-AP-MW-9V	8/10/2021 12:51	DO	0.17	mg/L
GS-AP-MW-9V	8/10/2021 12:51	Depth to Water Detail	60.15	ft
GS-AP-MW-9V	8/10/2021 12:51	Oxidation Reduction Potention	-248.61	mv
GS-AP-MW-9V	8/10/2021 12:51	pH	7.15	SU
GS-AP-MW-9V	8/10/2021 12:51	Temperature	21.02	C
GS-AP-MW-9V	8/10/2021 12:51	Turbidity	1.52	NTU
GS-AP-MW-9V	8/10/2021 12:56	Conductivity	574.77	uS/cm
GS-AP-MW-9V	8/10/2021 12:56	DO	0.18	mg/L
GS-AP-MW-9V	8/10/2021 12:56	Depth to Water Detail	60.16	ft
GS-AP-MW-9V	8/10/2021 12:56	Oxidation Reduction Potention	-248.82	mv
GS-AP-MW-9V	8/10/2021 12:56	pH	7.13	SU
GS-AP-MW-9V	8/10/2021 12:56	Temperature	20.99	C
GS-AP-MW-9V	8/10/2021 12:56	Turbidity	1.48	NTU
GS-AP-MW-9V	8/10/2021 13:01	Conductivity	562.39	uS/cm
GS-AP-MW-9V	8/10/2021 13:01	DO	0.17	mg/L
GS-AP-MW-9V	8/10/2021 13:01	Depth to Water Detail	60.16	ft
GS-AP-MW-9V	8/10/2021 13:01	Oxidation Reduction Potention	-249.52	mv
GS-AP-MW-9V	8/10/2021 13:01	pH	7.12	SU
GS-AP-MW-9V	8/10/2021 13:01	Temperature	21.18	C
GS-AP-MW-9V	8/10/2021 13:01	Turbidity	1.99	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12	8/9/2021 10:39	Conductivity	357.48	uS/cm
GS-AP-MW-12	8/9/2021 10:39	DO	0.61	mg/L
GS-AP-MW-12	8/9/2021 10:39	Depth to Water Detail	72.56	ft
GS-AP-MW-12	8/9/2021 10:39	Oxidation Reduction Potention	-144.47	mv
GS-AP-MW-12	8/9/2021 10:39	pH	7.26	SU
GS-AP-MW-12	8/9/2021 10:39	Temperature	20.09	C
GS-AP-MW-12	8/9/2021 10:39	Turbidity	0.36	NTU
GS-AP-MW-12	8/9/2021 10:44	Conductivity	353.85	uS/cm
GS-AP-MW-12	8/9/2021 10:44	DO	0.42	mg/L
GS-AP-MW-12	8/9/2021 10:44	Depth to Water Detail	74.85	ft
GS-AP-MW-12	8/9/2021 10:44	Oxidation Reduction Potention	-154.33	mv
GS-AP-MW-12	8/9/2021 10:44	pH	7.3	SU
GS-AP-MW-12	8/9/2021 10:44	Temperature	20.01	C
GS-AP-MW-12	8/9/2021 10:44	Turbidity	0.24	NTU
GS-AP-MW-12	8/9/2021 10:49	Conductivity	354.17	uS/cm
GS-AP-MW-12	8/9/2021 10:49	DO	0.37	mg/L
GS-AP-MW-12	8/9/2021 10:49	Depth to Water Detail	76.03	ft
GS-AP-MW-12	8/9/2021 10:49	Oxidation Reduction Potention	-158.12	mv
GS-AP-MW-12	8/9/2021 10:49	pH	7.35	SU
GS-AP-MW-12	8/9/2021 10:49	Temperature	20	C
GS-AP-MW-12	8/9/2021 10:49	Turbidity	0.54	NTU
GS-AP-MW-12	8/9/2021 10:54	Conductivity	350.9	uS/cm
GS-AP-MW-12	8/9/2021 10:54	DO	0.37	mg/L
GS-AP-MW-12	8/9/2021 10:54	Depth to Water Detail	77.13	ft
GS-AP-MW-12	8/9/2021 10:54	Oxidation Reduction Potention	-162.6	mv
GS-AP-MW-12	8/9/2021 10:54	pH	7.41	SU
GS-AP-MW-12	8/9/2021 10:54	Temperature	20.04	C
GS-AP-MW-12	8/9/2021 10:54	Turbidity	0.34	NTU
GS-AP-MW-12	8/9/2021 10:59	Conductivity	351.57	uS/cm
GS-AP-MW-12	8/9/2021 10:59	DO	0.36	mg/L
GS-AP-MW-12	8/9/2021 10:59	Depth to Water Detail	77.89	ft
GS-AP-MW-12	8/9/2021 10:59	Oxidation Reduction Potention	-164.1	mv
GS-AP-MW-12	8/9/2021 10:59	pH	7.46	SU
GS-AP-MW-12	8/9/2021 10:59	Temperature	19.67	C
GS-AP-MW-12	8/9/2021 10:59	Turbidity	0.36	NTU
GS-AP-MW-12	8/9/2021 11:04	Conductivity	350.96	uS/cm
GS-AP-MW-12	8/9/2021 11:04	DO	0.35	mg/L
GS-AP-MW-12	8/9/2021 11:04	Depth to Water Detail	78.56	ft
GS-AP-MW-12	8/9/2021 11:04	Oxidation Reduction Potention	-163.77	mv
GS-AP-MW-12	8/9/2021 11:04	pH	7.48	SU
GS-AP-MW-12	8/9/2021 11:04	Temperature	19.71	C
GS-AP-MW-12	8/9/2021 11:04	Turbidity	0.41	NTU
GS-AP-MW-12	8/9/2021 11:09	Conductivity	345.76	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12	8/9/2021 11:09	DO	0.47	mg/L
GS-AP-MW-12	8/9/2021 11:09	Depth to Water Detail	78.97	ft
GS-AP-MW-12	8/9/2021 11:09	Oxidation Reduction Potention	-177.03	mv
GS-AP-MW-12	8/9/2021 11:09	pH	7.77	SU
GS-AP-MW-12	8/9/2021 11:09	Temperature	20.93	C
GS-AP-MW-12	8/9/2021 11:09	Turbidity	0.34	NTU
GS-AP-MW-12	8/9/2021 11:14	Conductivity	326.89	uS/cm
GS-AP-MW-12	8/9/2021 11:14	DO	0.47	mg/L
GS-AP-MW-12	8/9/2021 11:14	Depth to Water Detail	79.12	ft
GS-AP-MW-12	8/9/2021 11:14	Oxidation Reduction Potention	-206.44	mv
GS-AP-MW-12	8/9/2021 11:14	pH	8.98	SU
GS-AP-MW-12	8/9/2021 11:14	Temperature	21.09	C
GS-AP-MW-12	8/9/2021 11:14	Turbidity	0.42	NTU
GS-AP-MW-12	8/9/2021 11:19	Conductivity	324.59	uS/cm
GS-AP-MW-12	8/9/2021 11:19	DO	0.49	mg/L
GS-AP-MW-12	8/9/2021 11:19	Depth to Water Detail	79.29	ft
GS-AP-MW-12	8/9/2021 11:19	Oxidation Reduction Potention	-196.4	mv
GS-AP-MW-12	8/9/2021 11:19	pH	9.11	SU
GS-AP-MW-12	8/9/2021 11:19	Temperature	20.66	C
GS-AP-MW-12	8/9/2021 11:19	Turbidity	0.54	NTU
GS-AP-MW-12	8/9/2021 11:24	Conductivity	329.47	uS/cm
GS-AP-MW-12	8/9/2021 11:24	DO	0.48	mg/L
GS-AP-MW-12	8/9/2021 11:24	Depth to Water Detail	79.45	ft
GS-AP-MW-12	8/9/2021 11:24	Oxidation Reduction Potention	-191.07	mv
GS-AP-MW-12	8/9/2021 11:24	pH	8.96	SU
GS-AP-MW-12	8/9/2021 11:24	Temperature	21.23	C
GS-AP-MW-12	8/9/2021 11:24	Turbidity	0.72	NTU
GS-AP-MW-12	8/9/2021 11:29	Conductivity	336.84	uS/cm
GS-AP-MW-12	8/9/2021 11:29	DO	0.47	mg/L
GS-AP-MW-12	8/9/2021 11:29	Depth to Water Detail	79.54	ft
GS-AP-MW-12	8/9/2021 11:29	Oxidation Reduction Potention	-198.83	mv
GS-AP-MW-12	8/9/2021 11:29	pH	8.61	SU
GS-AP-MW-12	8/9/2021 11:29	Temperature	21.4	C
GS-AP-MW-12	8/9/2021 11:29	Turbidity	0.74	NTU
GS-AP-MW-12	8/9/2021 11:34	Conductivity	341.51	uS/cm
GS-AP-MW-12	8/9/2021 11:34	DO	0.47	mg/L
GS-AP-MW-12	8/9/2021 11:34	Depth to Water Detail	79.67	ft
GS-AP-MW-12	8/9/2021 11:34	Oxidation Reduction Potention	-196.79	mv
GS-AP-MW-12	8/9/2021 11:34	pH	8.36	SU
GS-AP-MW-12	8/9/2021 11:34	Temperature	21.07	C
GS-AP-MW-12	8/9/2021 11:34	Turbidity	0.74	NTU
GS-AP-MW-12	8/9/2021 11:39	Conductivity	342.94	uS/cm
GS-AP-MW-12	8/9/2021 11:39	DO	0.48	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12	8/9/2021 11:39	Depth to Water Detail	79.79	ft
GS-AP-MW-12	8/9/2021 11:39	Oxidation Reduction Potention	-190.4	mv
GS-AP-MW-12	8/9/2021 11:39	pH	8.22	SU
GS-AP-MW-12	8/9/2021 11:39	Temperature	21.3	C
GS-AP-MW-12	8/9/2021 11:39	Turbidity	0.76	NTU
GS-AP-MW-12	8/9/2021 11:44	Conductivity	344.59	uS/cm
GS-AP-MW-12	8/9/2021 11:44	DO	0.47	mg/L
GS-AP-MW-12	8/9/2021 11:44	Depth to Water Detail	79.87	ft
GS-AP-MW-12	8/9/2021 11:44	Oxidation Reduction Potention	-184.81	mv
GS-AP-MW-12	8/9/2021 11:44	pH	8.13	SU
GS-AP-MW-12	8/9/2021 11:44	Temperature	21.25	C
GS-AP-MW-12	8/9/2021 11:44	Turbidity	0.64	NTU
GS-AP-MW-12	8/9/2021 11:49	Conductivity	344.82	uS/cm
GS-AP-MW-12	8/9/2021 11:49	DO	0.49	mg/L
GS-AP-MW-12	8/9/2021 11:49	Depth to Water Detail	79.96	ft
GS-AP-MW-12	8/9/2021 11:49	Oxidation Reduction Potention	-178.05	mv
GS-AP-MW-12	8/9/2021 11:49	pH	8.03	SU
GS-AP-MW-12	8/9/2021 11:49	Temperature	21.25	C
GS-AP-MW-12	8/9/2021 11:49	Turbidity	0.71	NTU
GS-AP-MW-12	8/9/2021 11:54	Conductivity	345.79	uS/cm
GS-AP-MW-12	8/9/2021 11:54	DO	0.49	mg/L
GS-AP-MW-12	8/9/2021 11:54	Depth to Water Detail	80.05	ft
GS-AP-MW-12	8/9/2021 11:54	Oxidation Reduction Potention	-173.67	mv
GS-AP-MW-12	8/9/2021 11:54	pH	7.98	SU
GS-AP-MW-12	8/9/2021 11:54	Temperature	20.61	C
GS-AP-MW-12	8/9/2021 11:54	Turbidity	0.74	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	8/9/2021 12:51	Conductivity	199.93	uS/cm
GS-AP-MW-12V	8/9/2021 12:51	DO	1.34	mg/L
GS-AP-MW-12V	8/9/2021 12:51	Depth to Water Detail	91.02	ft
GS-AP-MW-12V	8/9/2021 12:51	Oxidation Reduction Potention	-178.09	mv
GS-AP-MW-12V	8/9/2021 12:51	pH	9.5	SU
GS-AP-MW-12V	8/9/2021 12:51	Temperature	23.59	C
GS-AP-MW-12V	8/9/2021 12:51	Turbidity	11.8	NTU
GS-AP-MW-12V	8/9/2021 12:53	Conductivity	285.56	uS/cm
GS-AP-MW-12V	8/9/2021 12:53	DO	1.04	mg/L
GS-AP-MW-12V	8/9/2021 12:53	Depth to Water Detail	91.38	ft
GS-AP-MW-12V	8/9/2021 12:53	Oxidation Reduction Potention	-183.82	mv
GS-AP-MW-12V	8/9/2021 12:53	pH	10.23	SU
GS-AP-MW-12V	8/9/2021 12:53	Temperature	23.76	C
GS-AP-MW-12V	8/9/2021 12:53	Turbidity	10.1	NTU
GS-AP-MW-12V	8/9/2021 12:58	Conductivity	599.92	uS/cm
GS-AP-MW-12V	8/9/2021 12:58	DO	0.87	mg/L
GS-AP-MW-12V	8/9/2021 12:58	Depth to Water Detail	91.78	ft
GS-AP-MW-12V	8/9/2021 12:58	Oxidation Reduction Potention	-187.07	mv
GS-AP-MW-12V	8/9/2021 12:58	pH	10.63	SU
GS-AP-MW-12V	8/9/2021 12:58	Temperature	26.82	C
GS-AP-MW-12V	8/9/2021 12:58	Turbidity	12.5	NTU
GS-AP-MW-12V	8/9/2021 13:03	Conductivity	606.15	uS/cm
GS-AP-MW-12V	8/9/2021 13:03	DO	0.68	mg/L
GS-AP-MW-12V	8/9/2021 13:03	Depth to Water Detail	92.21	ft
GS-AP-MW-12V	8/9/2021 13:03	Oxidation Reduction Potention	-211.4	mv
GS-AP-MW-12V	8/9/2021 13:03	pH	10.91	SU
GS-AP-MW-12V	8/9/2021 13:03	Temperature	27.61	C
GS-AP-MW-12V	8/9/2021 13:03	Turbidity	16.3	NTU
GS-AP-MW-12V	8/9/2021 13:08	Conductivity	563.69	uS/cm
GS-AP-MW-12V	8/9/2021 13:08	DO	0.64	mg/L
GS-AP-MW-12V	8/9/2021 13:08	Depth to Water Detail	92.51	ft
GS-AP-MW-12V	8/9/2021 13:08	Oxidation Reduction Potention	-224.51	mv
GS-AP-MW-12V	8/9/2021 13:08	pH	11.05	SU
GS-AP-MW-12V	8/9/2021 13:08	Temperature	27.06	C
GS-AP-MW-12V	8/9/2021 13:08	Turbidity	14	NTU
GS-AP-MW-12V	8/9/2021 13:13	Conductivity	526.94	uS/cm
GS-AP-MW-12V	8/9/2021 13:13	DO	0.6	mg/L
GS-AP-MW-12V	8/9/2021 13:13	Depth to Water Detail	92.86	ft
GS-AP-MW-12V	8/9/2021 13:13	Oxidation Reduction Potention	-231.54	mv
GS-AP-MW-12V	8/9/2021 13:13	pH	11.09	SU
GS-AP-MW-12V	8/9/2021 13:13	Temperature	27.5	C
GS-AP-MW-12V	8/9/2021 13:13	Turbidity	16.6	NTU
GS-AP-MW-12V	8/9/2021 13:18	Conductivity	552.93	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	8/9/2021 13:18	DO	0.63	mg/L
GS-AP-MW-12V	8/9/2021 13:18	Depth to Water Detail	93.1	ft
GS-AP-MW-12V	8/9/2021 13:18	Oxidation Reduction Potention	-233.48	mv
GS-AP-MW-12V	8/9/2021 13:18	pH	11.09	SU
GS-AP-MW-12V	8/9/2021 13:18	Temperature	27.21	C
GS-AP-MW-12V	8/9/2021 13:18	Turbidity	23.1	NTU
GS-AP-MW-12V	8/9/2021 13:23	Conductivity	491.86	uS/cm
GS-AP-MW-12V	8/9/2021 13:23	DO	0.62	mg/L
GS-AP-MW-12V	8/9/2021 13:23	Depth to Water Detail	93.34	ft
GS-AP-MW-12V	8/9/2021 13:23	Oxidation Reduction Potention	-235.41	mv
GS-AP-MW-12V	8/9/2021 13:23	pH	11.07	SU
GS-AP-MW-12V	8/9/2021 13:23	Temperature	27.54	C
GS-AP-MW-12V	8/9/2021 13:23	Turbidity	26	NTU
GS-AP-MW-12V	8/9/2021 13:28	Conductivity	446.25	uS/cm
GS-AP-MW-12V	8/9/2021 13:28	DO	0.6	mg/L
GS-AP-MW-12V	8/9/2021 13:28	Depth to Water Detail	93.56	ft
GS-AP-MW-12V	8/9/2021 13:28	Oxidation Reduction Potention	-235.52	mv
GS-AP-MW-12V	8/9/2021 13:28	pH	11.04	SU
GS-AP-MW-12V	8/9/2021 13:28	Temperature	27.65	C
GS-AP-MW-12V	8/9/2021 13:28	Turbidity	29.8	NTU
GS-AP-MW-12V	8/9/2021 13:33	Conductivity	466.04	uS/cm
GS-AP-MW-12V	8/9/2021 13:33	DO	0.61	mg/L
GS-AP-MW-12V	8/9/2021 13:33	Depth to Water Detail	93.73	ft
GS-AP-MW-12V	8/9/2021 13:33	Oxidation Reduction Potention	-235.74	mv
GS-AP-MW-12V	8/9/2021 13:33	pH	11	SU
GS-AP-MW-12V	8/9/2021 13:33	Temperature	27.56	C
GS-AP-MW-12V	8/9/2021 13:33	Turbidity	30.5	NTU
GS-AP-MW-12V	8/9/2021 13:38	Conductivity	403.82	uS/cm
GS-AP-MW-12V	8/9/2021 13:38	DO	0.56	mg/L
GS-AP-MW-12V	8/9/2021 13:38	Depth to Water Detail	93.92	ft
GS-AP-MW-12V	8/9/2021 13:38	Oxidation Reduction Potention	-236.1	mv
GS-AP-MW-12V	8/9/2021 13:38	pH	10.94	SU
GS-AP-MW-12V	8/9/2021 13:38	Temperature	27.74	C
GS-AP-MW-12V	8/9/2021 13:38	Turbidity	33.6	NTU
GS-AP-MW-12V	8/9/2021 13:43	Conductivity	353.89	uS/cm
GS-AP-MW-12V	8/9/2021 13:43	DO	0.66	mg/L
GS-AP-MW-12V	8/9/2021 13:43	Depth to Water Detail	94.06	ft
GS-AP-MW-12V	8/9/2021 13:43	Oxidation Reduction Potention	-233.93	mv
GS-AP-MW-12V	8/9/2021 13:43	pH	10.87	SU
GS-AP-MW-12V	8/9/2021 13:43	Temperature	27.38	C
GS-AP-MW-12V	8/9/2021 13:43	Turbidity	33.9	NTU
GS-AP-MW-12V	8/9/2021 13:48	Conductivity	339.08	uS/cm
GS-AP-MW-12V	8/9/2021 13:48	DO	0.65	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	8/9/2021 13:48	Depth to Water Detail	94.19	ft
GS-AP-MW-12V	8/9/2021 13:48	Oxidation Reduction Potention	-234.42	mv
GS-AP-MW-12V	8/9/2021 13:48	pH	10.8	SU
GS-AP-MW-12V	8/9/2021 13:48	Temperature	27.51	C
GS-AP-MW-12V	8/9/2021 13:48	Turbidity	35.2	NTU
GS-AP-MW-12V	8/9/2021 13:53	Conductivity	292.15	uS/cm
GS-AP-MW-12V	8/9/2021 13:53	DO	0.68	mg/L
GS-AP-MW-12V	8/9/2021 13:53	Depth to Water Detail	94.37	ft
GS-AP-MW-12V	8/9/2021 13:53	Oxidation Reduction Potention	-233.59	mv
GS-AP-MW-12V	8/9/2021 13:53	pH	10.72	SU
GS-AP-MW-12V	8/9/2021 13:53	Temperature	27.01	C
GS-AP-MW-12V	8/9/2021 13:53	Turbidity	35.7	NTU
GS-AP-MW-12V	8/9/2021 13:58	Conductivity	261.32	uS/cm
GS-AP-MW-12V	8/9/2021 13:58	DO	0.65	mg/L
GS-AP-MW-12V	8/9/2021 13:58	Depth to Water Detail	94.5	ft
GS-AP-MW-12V	8/9/2021 13:58	Oxidation Reduction Potention	-230.8	mv
GS-AP-MW-12V	8/9/2021 13:58	pH	10.57	SU
GS-AP-MW-12V	8/9/2021 13:58	Temperature	26.63	C
GS-AP-MW-12V	8/9/2021 13:58	Turbidity	37.3	NTU
GS-AP-MW-12V	8/9/2021 14:03	Conductivity	224.88	uS/cm
GS-AP-MW-12V	8/9/2021 14:03	DO	0.67	mg/L
GS-AP-MW-12V	8/9/2021 14:03	Depth to Water Detail	94.63	ft
GS-AP-MW-12V	8/9/2021 14:03	Oxidation Reduction Potention	-229.63	mv
GS-AP-MW-12V	8/9/2021 14:03	pH	10.45	SU
GS-AP-MW-12V	8/9/2021 14:03	Temperature	26.85	C
GS-AP-MW-12V	8/9/2021 14:03	Turbidity	37.2	NTU
GS-AP-MW-12V	8/9/2021 14:08	Conductivity	199.49	uS/cm
GS-AP-MW-12V	8/9/2021 14:08	DO	0.68	mg/L
GS-AP-MW-12V	8/9/2021 14:08	Depth to Water Detail	94.74	ft
GS-AP-MW-12V	8/9/2021 14:08	Oxidation Reduction Potention	-227.61	mv
GS-AP-MW-12V	8/9/2021 14:08	pH	10.28	SU
GS-AP-MW-12V	8/9/2021 14:08	Temperature	27.16	C
GS-AP-MW-12V	8/9/2021 14:08	Turbidity	36.4	NTU
GS-AP-MW-12V	8/9/2021 14:13	Conductivity	178.56	uS/cm
GS-AP-MW-12V	8/9/2021 14:13	DO	0.72	mg/L
GS-AP-MW-12V	8/9/2021 14:13	Depth to Water Detail	94.82	ft
GS-AP-MW-12V	8/9/2021 14:13	Oxidation Reduction Potention	-224.25	mv
GS-AP-MW-12V	8/9/2021 14:13	pH	10.09	SU
GS-AP-MW-12V	8/9/2021 14:13	Temperature	27	C
GS-AP-MW-12V	8/9/2021 14:13	Turbidity	33.9	NTU
GS-AP-MW-12V	8/9/2021 14:18	Conductivity	192.54	uS/cm
GS-AP-MW-12V	8/9/2021 14:18	DO	0.71	mg/L
GS-AP-MW-12V	8/9/2021 14:18	Depth to Water Detail	94.94	ft

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	8/9/2021 14:18	Oxidation Reduction Potention	-220.59	mv
GS-AP-MW-12V	8/9/2021 14:18	pH	9.91	SU
GS-AP-MW-12V	8/9/2021 14:18	Temperature	26.81	C
GS-AP-MW-12V	8/9/2021 14:18	Turbidity	32.9	NTU
GS-AP-MW-12V	8/9/2021 14:23	Conductivity	185.36	uS/cm
GS-AP-MW-12V	8/9/2021 14:23	DO	0.69	mg/L
GS-AP-MW-12V	8/9/2021 14:23	Depth to Water Detail	95.03	ft
GS-AP-MW-12V	8/9/2021 14:23	Oxidation Reduction Potention	-218.92	mv
GS-AP-MW-12V	8/9/2021 14:23	pH	9.81	SU
GS-AP-MW-12V	8/9/2021 14:23	Temperature	26.95	C
GS-AP-MW-12V	8/9/2021 14:23	Turbidity	33.2	NTU
GS-AP-MW-12V	8/9/2021 14:28	Conductivity	179.44	uS/cm
GS-AP-MW-12V	8/9/2021 14:28	DO	0.69	mg/L
GS-AP-MW-12V	8/9/2021 14:28	Depth to Water Detail	95.12	ft
GS-AP-MW-12V	8/9/2021 14:28	Oxidation Reduction Potention	-215.24	mv
GS-AP-MW-12V	8/9/2021 14:28	pH	9.63	SU
GS-AP-MW-12V	8/9/2021 14:28	Temperature	27.11	C
GS-AP-MW-12V	8/9/2021 14:28	Turbidity	34.4	NTU
GS-AP-MW-12V	8/9/2021 14:33	Conductivity	177.69	uS/cm
GS-AP-MW-12V	8/9/2021 14:33	DO	0.71	mg/L
GS-AP-MW-12V	8/9/2021 14:33	Depth to Water Detail	95.19	ft
GS-AP-MW-12V	8/9/2021 14:33	Oxidation Reduction Potention	-211.95	mv
GS-AP-MW-12V	8/9/2021 14:33	pH	9.47	SU
GS-AP-MW-12V	8/9/2021 14:33	Temperature	27.13	C
GS-AP-MW-12V	8/9/2021 14:33	Turbidity	32.1	NTU
GS-AP-MW-12V	8/9/2021 14:38	Conductivity	176.71	uS/cm
GS-AP-MW-12V	8/9/2021 14:38	DO	0.78	mg/L
GS-AP-MW-12V	8/9/2021 14:38	Depth to Water Detail	95.24	ft
GS-AP-MW-12V	8/9/2021 14:38	Oxidation Reduction Potention	-208.94	mv
GS-AP-MW-12V	8/9/2021 14:38	pH	9.36	SU
GS-AP-MW-12V	8/9/2021 14:38	Temperature	27.32	C
GS-AP-MW-12V	8/9/2021 14:38	Turbidity	29	NTU
GS-AP-MW-12V	8/9/2021 14:43	Conductivity	200.1	uS/cm
GS-AP-MW-12V	8/9/2021 14:43	DO	0.76	mg/L
GS-AP-MW-12V	8/9/2021 14:43	Depth to Water Detail	95.27	ft
GS-AP-MW-12V	8/9/2021 14:43	Oxidation Reduction Potention	-207.23	mv
GS-AP-MW-12V	8/9/2021 14:43	pH	9.25	SU
GS-AP-MW-12V	8/9/2021 14:43	Temperature	27.56	C
GS-AP-MW-12V	8/9/2021 14:43	Turbidity	25.1	NTU
GS-AP-MW-12V	8/9/2021 14:48	Conductivity	198.86	uS/cm
GS-AP-MW-12V	8/9/2021 14:48	DO	0.77	mg/L
GS-AP-MW-12V	8/9/2021 14:48	Depth to Water Detail	95.31	ft
GS-AP-MW-12V	8/9/2021 14:48	Oxidation Reduction Potention	-204.82	mv

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-12V	8/9/2021 14:48	pH	9.15	SU
GS-AP-MW-12V	8/9/2021 14:48	Temperature	27.44	C
GS-AP-MW-12V	8/9/2021 14:48	Turbidity	25.3	NTU
GS-AP-MW-12V	8/9/2021 14:50	Conductivity	210.92	uS/cm
GS-AP-MW-12V	8/9/2021 14:50	DO	0.79	mg/L
GS-AP-MW-12V	8/9/2021 14:50	Depth to Water Detail	95.33	ft
GS-AP-MW-12V	8/9/2021 14:50	Oxidation Reduction Potention	-202.05	mv
GS-AP-MW-12V	8/9/2021 14:50	pH	9.11	SU
GS-AP-MW-12V	8/9/2021 14:50	Temperature	27.31	C
GS-AP-MW-12V	8/9/2021 14:50	Turbidity	25.1	NTU
GS-AP-MW-12V	8/9/2021 14:55	Conductivity	215.96	uS/cm
GS-AP-MW-12V	8/9/2021 14:55	DO	0.79	mg/L
GS-AP-MW-12V	8/9/2021 14:55	Depth to Water Detail	95.34	ft
GS-AP-MW-12V	8/9/2021 14:55	Oxidation Reduction Potention	-200.7	mv
GS-AP-MW-12V	8/9/2021 14:55	pH	9.01	SU
GS-AP-MW-12V	8/9/2021 14:55	Temperature	27.45	C
GS-AP-MW-12V	8/9/2021 14:55	Turbidity	23.4	NTU
GS-AP-MW-12V	8/9/2021 15:00	Conductivity	217.23	uS/cm
GS-AP-MW-12V	8/9/2021 15:00	DO	0.83	mg/L
GS-AP-MW-12V	8/9/2021 15:00	Depth to Water Detail	95.35	ft
GS-AP-MW-12V	8/9/2021 15:00	Oxidation Reduction Potention	-198.04	mv
GS-AP-MW-12V	8/9/2021 15:00	pH	8.9	SU
GS-AP-MW-12V	8/9/2021 15:00	Temperature	27.37	C
GS-AP-MW-12V	8/9/2021 15:00	Turbidity	21.7	NTU
GS-AP-MW-12V	8/9/2021 15:05	Conductivity	218.45	uS/cm
GS-AP-MW-12V	8/9/2021 15:05	DO	0.82	mg/L
GS-AP-MW-12V	8/9/2021 15:05	Depth to Water Detail	95.35	ft
GS-AP-MW-12V	8/9/2021 15:05	Oxidation Reduction Potention	-194.09	mv
GS-AP-MW-12V	8/9/2021 15:05	pH	8.8	SU
GS-AP-MW-12V	8/9/2021 15:05	Temperature	27.2	C
GS-AP-MW-12V	8/9/2021 15:05	Turbidity	21.2	NTU
GS-AP-MW-12V	8/9/2021 15:10	Conductivity	222.6	uS/cm
GS-AP-MW-12V	8/9/2021 15:10	DO	0.81	mg/L
GS-AP-MW-12V	8/9/2021 15:10	Depth to Water Detail	95.35	ft
GS-AP-MW-12V	8/9/2021 15:10	Oxidation Reduction Potention	-194.69	mv
GS-AP-MW-12V	8/9/2021 15:10	pH	8.77	SU
GS-AP-MW-12V	8/9/2021 15:10	Temperature	27.69	C
GS-AP-MW-12V	8/9/2021 15:10	Turbidity	20.8	NTU

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Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-19	8/10/2021 9:38	Conductivity	514.25	uS/cm
GS-AP-MW-19	8/10/2021 9:38	DO	0.21	mg/L
GS-AP-MW-19	8/10/2021 9:38	Depth to Water Detail	112.56	ft
GS-AP-MW-19	8/10/2021 9:38	Oxidation Reduction Potention	-199	mv
GS-AP-MW-19	8/10/2021 9:38	pH	8.15	SU
GS-AP-MW-19	8/10/2021 9:38	Temperature	18.32	C
GS-AP-MW-19	8/10/2021 9:38	Turbidity	4.74	NTU
GS-AP-MW-19	8/10/2021 9:43	Conductivity	516.29	uS/cm
GS-AP-MW-19	8/10/2021 9:43	DO	0.17	mg/L
GS-AP-MW-19	8/10/2021 9:43	Depth to Water Detail	112.56	ft
GS-AP-MW-19	8/10/2021 9:43	Oxidation Reduction Potention	-207.99	mv
GS-AP-MW-19	8/10/2021 9:43	pH	8.12	SU
GS-AP-MW-19	8/10/2021 9:43	Temperature	17.94	C
GS-AP-MW-19	8/10/2021 9:43	Turbidity	1.54	NTU
GS-AP-MW-19	8/10/2021 9:48	Conductivity	521.15	uS/cm
GS-AP-MW-19	8/10/2021 9:48	DO	0.17	mg/L
GS-AP-MW-19	8/10/2021 9:48	Depth to Water Detail	112.56	ft
GS-AP-MW-19	8/10/2021 9:48	Oxidation Reduction Potention	-207.23	mv
GS-AP-MW-19	8/10/2021 9:48	pH	8.02	SU
GS-AP-MW-19	8/10/2021 9:48	Temperature	18.1	C
GS-AP-MW-19	8/10/2021 9:48	Turbidity	1.46	NTU
GS-AP-MW-19	8/10/2021 9:53	Conductivity	525.7	uS/cm
GS-AP-MW-19	8/10/2021 9:53	DO	0.18	mg/L
GS-AP-MW-19	8/10/2021 9:53	Depth to Water Detail	112.56	ft
GS-AP-MW-19	8/10/2021 9:53	Oxidation Reduction Potention	-198.83	mv
GS-AP-MW-19	8/10/2021 9:53	pH	7.85	SU
GS-AP-MW-19	8/10/2021 9:53	Temperature	17.99	C
GS-AP-MW-19	8/10/2021 9:53	Turbidity	1.39	NTU
GS-AP-MW-19	8/10/2021 9:58	Conductivity	524.53	uS/cm
GS-AP-MW-19	8/10/2021 9:58	DO	0.18	mg/L
GS-AP-MW-19	8/10/2021 9:58	Depth to Water Detail	112.56	ft
GS-AP-MW-19	8/10/2021 9:58	Oxidation Reduction Potention	-193.26	mv
GS-AP-MW-19	8/10/2021 9:58	pH	7.76	SU
GS-AP-MW-19	8/10/2021 9:58	Temperature	17.98	C
GS-AP-MW-19	8/10/2021 9:58	Turbidity	1.25	NTU
GS-AP-MW-19	8/10/2021 10:03	Conductivity	521.45	uS/cm
GS-AP-MW-19	8/10/2021 10:03	DO	0.18	mg/L
GS-AP-MW-19	8/10/2021 10:03	Depth to Water Detail	112.56	ft
GS-AP-MW-19	8/10/2021 10:03	Oxidation Reduction Potention	-190.26	mv
GS-AP-MW-19	8/10/2021 10:03	pH	7.72	SU
GS-AP-MW-19	8/10/2021 10:03	Temperature	17.94	C
GS-AP-MW-19	8/10/2021 10:03	Turbidity	1.22	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-25HA	8/12/2021 8:18	Conductivity	1390.94	uS/cm
GS-AP-MW-25HA	8/12/2021 8:18	DO	3.2	mg/L
GS-AP-MW-25HA	8/12/2021 8:18	Depth to Water Detail	176.29	ft
GS-AP-MW-25HA	8/12/2021 8:18	Oxidation Reduction Potention	-173.93	mv
GS-AP-MW-25HA	8/12/2021 8:18	pH	8.36	SU
GS-AP-MW-25HA	8/12/2021 8:18	Temperature	20.72	C
GS-AP-MW-25HA	8/12/2021 8:18	Turbidity	2.72	NTU
GS-AP-MW-25HA	8/12/2021 8:23	Conductivity	1480.62	uS/cm
GS-AP-MW-25HA	8/12/2021 8:23	DO	3.18	mg/L
GS-AP-MW-25HA	8/12/2021 8:23	Depth to Water Detail	176.65	ft
GS-AP-MW-25HA	8/12/2021 8:23	Oxidation Reduction Potention	-178.64	mv
GS-AP-MW-25HA	8/12/2021 8:23	pH	8.71	SU
GS-AP-MW-25HA	8/12/2021 8:23	Temperature	20.83	C
GS-AP-MW-25HA	8/12/2021 8:23	Turbidity	2.51	NTU
GS-AP-MW-25HA	8/12/2021 8:28	Conductivity	1486.64	uS/cm
GS-AP-MW-25HA	8/12/2021 8:28	DO	2.76	mg/L
GS-AP-MW-25HA	8/12/2021 8:28	Depth to Water Detail	176.88	ft
GS-AP-MW-25HA	8/12/2021 8:28	Oxidation Reduction Potention	-186.11	mv
GS-AP-MW-25HA	8/12/2021 8:28	pH	8.74	SU
GS-AP-MW-25HA	8/12/2021 8:28	Temperature	20.98	C
GS-AP-MW-25HA	8/12/2021 8:28	Turbidity	2.26	NTU
GS-AP-MW-25HA	8/12/2021 8:33	Conductivity	1477.52	uS/cm
GS-AP-MW-25HA	8/12/2021 8:33	DO	2	mg/L
GS-AP-MW-25HA	8/12/2021 8:33	Depth to Water Detail	177.07	ft
GS-AP-MW-25HA	8/12/2021 8:33	Oxidation Reduction Potention	-193.04	mv
GS-AP-MW-25HA	8/12/2021 8:33	pH	8.77	SU
GS-AP-MW-25HA	8/12/2021 8:33	Temperature	20.62	C
GS-AP-MW-25HA	8/12/2021 8:33	Turbidity	2.28	NTU
GS-AP-MW-25HA	8/12/2021 8:38	Conductivity	1501.83	uS/cm
GS-AP-MW-25HA	8/12/2021 8:38	DO	1.78	mg/L
GS-AP-MW-25HA	8/12/2021 8:38	Depth to Water Detail	177.2	ft
GS-AP-MW-25HA	8/12/2021 8:38	Oxidation Reduction Potention	-195.96	mv
GS-AP-MW-25HA	8/12/2021 8:38	pH	8.76	SU
GS-AP-MW-25HA	8/12/2021 8:38	Temperature	21.67	C
GS-AP-MW-25HA	8/12/2021 8:38	Turbidity	2.13	NTU
GS-AP-MW-25HA	8/12/2021 8:43	Conductivity	1497.07	uS/cm
GS-AP-MW-25HA	8/12/2021 8:43	DO	1.77	mg/L
GS-AP-MW-25HA	8/12/2021 8:43	Depth to Water Detail	177.33	ft
GS-AP-MW-25HA	8/12/2021 8:43	Oxidation Reduction Potention	-197.75	mv
GS-AP-MW-25HA	8/12/2021 8:43	pH	8.77	SU
GS-AP-MW-25HA	8/12/2021 8:43	Temperature	21.63	C
GS-AP-MW-25HA	8/12/2021 8:43	Turbidity	2.12	NTU
GS-AP-MW-25HA	8/12/2021 8:48	Conductivity	1409.5	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-25HA	8/12/2021 8:48	DO	1.98	mg/L
GS-AP-MW-25HA	8/12/2021 8:48	Depth to Water Detail	177.42	ft
GS-AP-MW-25HA	8/12/2021 8:48	Oxidation Reduction Potention	-197.99	mv
GS-AP-MW-25HA	8/12/2021 8:48	pH	8.77	SU
GS-AP-MW-25HA	8/12/2021 8:48	Temperature	21.56	C
GS-AP-MW-25HA	8/12/2021 8:48	Turbidity	2.13	NTU
GS-AP-MW-25HA	8/12/2021 8:53	Conductivity	1492.5	uS/cm
GS-AP-MW-25HA	8/12/2021 8:53	DO	1.84	mg/L
GS-AP-MW-25HA	8/12/2021 8:53	Depth to Water Detail	177.51	ft
GS-AP-MW-25HA	8/12/2021 8:53	Oxidation Reduction Potention	-200.51	mv
GS-AP-MW-25HA	8/12/2021 8:53	pH	8.77	SU
GS-AP-MW-25HA	8/12/2021 8:53	Temperature	21.55	C
GS-AP-MW-25HA	8/12/2021 8:53	Turbidity	1.91	NTU
GS-AP-MW-25HA	8/12/2021 8:58	Conductivity	1499.42	uS/cm
GS-AP-MW-25HA	8/12/2021 8:58	DO	1.78	mg/L
GS-AP-MW-25HA	8/12/2021 8:58	Depth to Water Detail	177.56	ft
GS-AP-MW-25HA	8/12/2021 8:58	Oxidation Reduction Potention	-200.66	mv
GS-AP-MW-25HA	8/12/2021 8:58	pH	8.77	SU
GS-AP-MW-25HA	8/12/2021 8:58	Temperature	21.82	C
GS-AP-MW-25HA	8/12/2021 8:58	Turbidity	2.1	NTU
GS-AP-MW-25HA	8/12/2021 9:03	Conductivity	1467.42	uS/cm
GS-AP-MW-25HA	8/12/2021 9:03	DO	1.89	mg/L
GS-AP-MW-25HA	8/12/2021 9:03	Depth to Water Detail	177.6	ft
GS-AP-MW-25HA	8/12/2021 9:03	Oxidation Reduction Potention	-202.03	mv
GS-AP-MW-25HA	8/12/2021 9:03	pH	8.78	SU
GS-AP-MW-25HA	8/12/2021 9:03	Temperature	22.5	C
GS-AP-MW-25HA	8/12/2021 9:03	Turbidity	2.11	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	8/11/2021 11:25	Conductivity	1651.67	uS/cm
GS-AP-MW-21V	8/11/2021 11:25	DO	0.24	mg/L
GS-AP-MW-21V	8/11/2021 11:25	Depth to Water Detail	176.33	ft
GS-AP-MW-21V	8/11/2021 11:25	Oxidation Reduction Potention	-182.67	mv
GS-AP-MW-21V	8/11/2021 11:25	pH	8.19	SU
GS-AP-MW-21V	8/11/2021 11:25	Temperature	19.65	C
GS-AP-MW-21V	8/11/2021 11:25	Turbidity		NTU
GS-AP-MW-21V	8/11/2021 11:30	Conductivity	1532.38	uS/cm
GS-AP-MW-21V	8/11/2021 11:30	DO	0.16	mg/L
GS-AP-MW-21V	8/11/2021 11:30	Depth to Water Detail	181.73	ft
GS-AP-MW-21V	8/11/2021 11:30	Oxidation Reduction Potention	-200.8	mv
GS-AP-MW-21V	8/11/2021 11:30	pH	8.28	SU
GS-AP-MW-21V	8/11/2021 11:30	Temperature	19.26	C
GS-AP-MW-21V	8/11/2021 11:30	Turbidity	1.74	NTU
GS-AP-MW-21V	8/11/2021 11:35	Conductivity	1541.98	uS/cm
GS-AP-MW-21V	8/11/2021 11:35	DO	0.15	mg/L
GS-AP-MW-21V	8/11/2021 11:35	Depth to Water Detail	183.93	ft
GS-AP-MW-21V	8/11/2021 11:35	Oxidation Reduction Potention	-206.57	mv
GS-AP-MW-21V	8/11/2021 11:35	pH	8.28	SU
GS-AP-MW-21V	8/11/2021 11:35	Temperature	19.39	C
GS-AP-MW-21V	8/11/2021 11:35	Turbidity	1.33	NTU
GS-AP-MW-21V	8/11/2021 11:40	Conductivity	1540.58	uS/cm
GS-AP-MW-21V	8/11/2021 11:40	DO	0.15	mg/L
GS-AP-MW-21V	8/11/2021 11:40	Depth to Water Detail	185.42	ft
GS-AP-MW-21V	8/11/2021 11:40	Oxidation Reduction Potention	-210.05	mv
GS-AP-MW-21V	8/11/2021 11:40	pH	8.29	SU
GS-AP-MW-21V	8/11/2021 11:40	Temperature	19.36	C
GS-AP-MW-21V	8/11/2021 11:40	Turbidity	1.13	NTU
GS-AP-MW-21V	8/11/2021 11:45	Conductivity	1544.36	uS/cm
GS-AP-MW-21V	8/11/2021 11:45	DO	0.13	mg/L
GS-AP-MW-21V	8/11/2021 11:45	Depth to Water Detail	187.31	ft
GS-AP-MW-21V	8/11/2021 11:45	Oxidation Reduction Potention	-214.45	mv
GS-AP-MW-21V	8/11/2021 11:45	pH	8.29	SU
GS-AP-MW-21V	8/11/2021 11:45	Temperature	18.74	C
GS-AP-MW-21V	8/11/2021 11:45	Turbidity	1.25	NTU
GS-AP-MW-21V	8/11/2021 11:50	Conductivity	1547.09	uS/cm
GS-AP-MW-21V	8/11/2021 11:50	DO	0.12	mg/L
GS-AP-MW-21V	8/11/2021 11:50	Depth to Water Detail	190.04	ft
GS-AP-MW-21V	8/11/2021 11:50	Oxidation Reduction Potention	-218.52	mv
GS-AP-MW-21V	8/11/2021 11:50	pH	8.29	SU
GS-AP-MW-21V	8/11/2021 11:50	Temperature	18.67	C
GS-AP-MW-21V	8/11/2021 11:50	Turbidity	1.33	NTU
GS-AP-MW-21V	8/11/2021 11:55	Conductivity	1558.15	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	8/11/2021 11:55	DO	0.11	mg/L
GS-AP-MW-21V	8/11/2021 11:55	Depth to Water Detail	192.02	ft
GS-AP-MW-21V	8/11/2021 11:55	Oxidation Reduction Potention	-220.49	mv
GS-AP-MW-21V	8/11/2021 11:55	pH	8.29	SU
GS-AP-MW-21V	8/11/2021 11:55	Temperature	18.75	C
GS-AP-MW-21V	8/11/2021 11:55	Turbidity	1.25	NTU
GS-AP-MW-21V	8/11/2021 12:00	Conductivity	1582.39	uS/cm
GS-AP-MW-21V	8/11/2021 12:00	DO	0.11	mg/L
GS-AP-MW-21V	8/11/2021 12:00	Depth to Water Detail	194.12	ft
GS-AP-MW-21V	8/11/2021 12:00	Oxidation Reduction Potention	-222.49	mv
GS-AP-MW-21V	8/11/2021 12:00	pH	8.29	SU
GS-AP-MW-21V	8/11/2021 12:00	Temperature	19.05	C
GS-AP-MW-21V	8/11/2021 12:00	Turbidity	2.11	NTU
GS-AP-MW-21V	8/11/2021 12:05	Conductivity	1576.32	uS/cm
GS-AP-MW-21V	8/11/2021 12:05	DO	0.11	mg/L
GS-AP-MW-21V	8/11/2021 12:05	Depth to Water Detail	196.22	ft
GS-AP-MW-21V	8/11/2021 12:05	Oxidation Reduction Potention	-224.28	mv
GS-AP-MW-21V	8/11/2021 12:05	pH	8.3	SU
GS-AP-MW-21V	8/11/2021 12:05	Temperature	18.75	C
GS-AP-MW-21V	8/11/2021 12:05	Turbidity	1.23	NTU
GS-AP-MW-21V	8/11/2021 12:10	Conductivity	1586.09	uS/cm
GS-AP-MW-21V	8/11/2021 12:10	DO	0.11	mg/L
GS-AP-MW-21V	8/11/2021 12:10	Depth to Water Detail	198.2	ft
GS-AP-MW-21V	8/11/2021 12:10	Oxidation Reduction Potention	-225.9	mv
GS-AP-MW-21V	8/11/2021 12:10	pH	8.31	SU
GS-AP-MW-21V	8/11/2021 12:10	Temperature	18.8	C
GS-AP-MW-21V	8/11/2021 12:10	Turbidity	1.65	NTU
GS-AP-MW-21V	8/11/2021 12:15	Conductivity	1585.35	uS/cm
GS-AP-MW-21V	8/11/2021 12:15	DO	0.11	mg/L
GS-AP-MW-21V	8/11/2021 12:15	Depth to Water Detail	200.11	ft
GS-AP-MW-21V	8/11/2021 12:15	Oxidation Reduction Potention	-227.05	mv
GS-AP-MW-21V	8/11/2021 12:15	pH	8.32	SU
GS-AP-MW-21V	8/11/2021 12:15	Temperature	18.83	C
GS-AP-MW-21V	8/11/2021 12:15	Turbidity	1.35	NTU
GS-AP-MW-21V	8/11/2021 12:20	Conductivity	1623.74	uS/cm
GS-AP-MW-21V	8/11/2021 12:20	DO	0.11	mg/L
GS-AP-MW-21V	8/11/2021 12:20	Depth to Water Detail	202.18	ft
GS-AP-MW-21V	8/11/2021 12:20	Oxidation Reduction Potention	-227.04	mv
GS-AP-MW-21V	8/11/2021 12:20	pH	8.3	SU
GS-AP-MW-21V	8/11/2021 12:20	Temperature	18.68	C
GS-AP-MW-21V	8/11/2021 12:20	Turbidity	1.17	NTU
GS-AP-MW-21V	8/11/2021 12:25	Conductivity	1627.79	uS/cm
GS-AP-MW-21V	8/11/2021 12:25	DO	0.1	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	8/11/2021 12:25	Depth to Water Detail	204.1	ft
GS-AP-MW-21V	8/11/2021 12:25	Oxidation Reduction Potention	-227.5	mv
GS-AP-MW-21V	8/11/2021 12:25	pH	8.31	SU
GS-AP-MW-21V	8/11/2021 12:25	Temperature	18.63	C
GS-AP-MW-21V	8/11/2021 12:25	Turbidity	1.56	NTU
GS-AP-MW-21V	8/11/2021 12:30	Conductivity	1656.4	uS/cm
GS-AP-MW-21V	8/11/2021 12:30	DO	0.1	mg/L
GS-AP-MW-21V	8/11/2021 12:30	Depth to Water Detail	206.14	ft
GS-AP-MW-21V	8/11/2021 12:30	Oxidation Reduction Potention	-227.9	mv
GS-AP-MW-21V	8/11/2021 12:30	pH	8.3	SU
GS-AP-MW-21V	8/11/2021 12:30	Temperature	18.74	C
GS-AP-MW-21V	8/11/2021 12:30	Turbidity	1.21	NTU
GS-AP-MW-21V	8/11/2021 12:35	Conductivity	1656.42	uS/cm
GS-AP-MW-21V	8/11/2021 12:35	DO	0.1	mg/L
GS-AP-MW-21V	8/11/2021 12:35	Depth to Water Detail	208.09	ft
GS-AP-MW-21V	8/11/2021 12:35	Oxidation Reduction Potention	-227.93	mv
GS-AP-MW-21V	8/11/2021 12:35	pH	8.3	SU
GS-AP-MW-21V	8/11/2021 12:35	Temperature	18.68	C
GS-AP-MW-21V	8/11/2021 12:35	Turbidity	1.98	NTU
GS-AP-MW-21V	8/11/2021 12:40	Conductivity	1682.58	uS/cm
GS-AP-MW-21V	8/11/2021 12:40	DO	0.11	mg/L
GS-AP-MW-21V	8/11/2021 12:40	Depth to Water Detail	209.86	ft
GS-AP-MW-21V	8/11/2021 12:40	Oxidation Reduction Potention	-228.55	mv
GS-AP-MW-21V	8/11/2021 12:40	pH	8.29	SU
GS-AP-MW-21V	8/11/2021 12:40	Temperature	18.83	C
GS-AP-MW-21V	8/11/2021 12:40	Turbidity	1.56	NTU
GS-AP-MW-21V	8/11/2021 12:45	Conductivity	1688.68	uS/cm
GS-AP-MW-21V	8/11/2021 12:45	DO	0.33	mg/L
GS-AP-MW-21V	8/11/2021 12:45	Depth to Water Detail	209.69	ft
GS-AP-MW-21V	8/11/2021 12:45	Oxidation Reduction Potention	-213.7	mv
GS-AP-MW-21V	8/11/2021 12:45	pH	8.26	SU
GS-AP-MW-21V	8/11/2021 12:45	Temperature	21.64	C
GS-AP-MW-21V	8/11/2021 12:45	Turbidity	1.57	NTU
GS-AP-MW-21V	8/11/2021 12:50	Conductivity	1677.17	uS/cm
GS-AP-MW-21V	8/11/2021 12:50	DO	0.36	mg/L
GS-AP-MW-21V	8/11/2021 12:50	Depth to Water Detail	209.67	ft
GS-AP-MW-21V	8/11/2021 12:50	Oxidation Reduction Potention	-209.34	mv
GS-AP-MW-21V	8/11/2021 12:50	pH	8.26	SU
GS-AP-MW-21V	8/11/2021 12:50	Temperature	22.74	C
GS-AP-MW-21V	8/11/2021 12:50	Turbidity	1.62	NTU
GS-AP-MW-21V	8/11/2021 12:55	Conductivity	1626.13	uS/cm
GS-AP-MW-21V	8/11/2021 12:55	DO	0.4	mg/L
GS-AP-MW-21V	8/11/2021 12:55	Depth to Water Detail	209.61	ft

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-21V	8/11/2021 12:55	Oxidation Reduction Potention	-207.9	mv
GS-AP-MW-21V	8/11/2021 12:55	pH	8.28	SU
GS-AP-MW-21V	8/11/2021 12:55	Temperature	22.91	C
GS-AP-MW-21V	8/11/2021 12:55	Turbidity	1.45	NTU

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Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	8/9/2021 10:31	Conductivity	535.85	uS/cm
GS-AP-MW-7	8/9/2021 10:31	DO	0.34	mg/L
GS-AP-MW-7	8/9/2021 10:31	Depth to Water Detail	10.63	ft
GS-AP-MW-7	8/9/2021 10:31	Oxidation Reduction Potention	-63.33	mv
GS-AP-MW-7	8/9/2021 10:31	pH	7.28	SU
GS-AP-MW-7	8/9/2021 10:31	Temperature	19.69	C
GS-AP-MW-7	8/9/2021 10:31	Turbidity	4.45	NTU
GS-AP-MW-7	8/9/2021 10:36	Conductivity	535.7	uS/cm
GS-AP-MW-7	8/9/2021 10:36	DO	0.28	mg/L
GS-AP-MW-7	8/9/2021 10:36	Depth to Water Detail	10.7	ft
GS-AP-MW-7	8/9/2021 10:36	Oxidation Reduction Potention	-61.01	mv
GS-AP-MW-7	8/9/2021 10:36	pH	7.28	SU
GS-AP-MW-7	8/9/2021 10:36	Temperature	19.49	C
GS-AP-MW-7	8/9/2021 10:36	Turbidity	17.2	NTU
GS-AP-MW-7	8/9/2021 10:41	Conductivity	535.01	uS/cm
GS-AP-MW-7	8/9/2021 10:41	DO	0.25	mg/L
GS-AP-MW-7	8/9/2021 10:41	Depth to Water Detail	10.79	ft
GS-AP-MW-7	8/9/2021 10:41	Oxidation Reduction Potention	-62.33	mv
GS-AP-MW-7	8/9/2021 10:41	pH	7.3	SU
GS-AP-MW-7	8/9/2021 10:41	Temperature	19.43	C
GS-AP-MW-7	8/9/2021 10:41	Turbidity	16.7	NTU
GS-AP-MW-7	8/9/2021 10:46	Conductivity	534.49	uS/cm
GS-AP-MW-7	8/9/2021 10:46	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 10:46	Depth to Water Detail	10.81	ft
GS-AP-MW-7	8/9/2021 10:46	Oxidation Reduction Potention	-65.46	mv
GS-AP-MW-7	8/9/2021 10:46	pH	7.33	SU
GS-AP-MW-7	8/9/2021 10:46	Temperature	19.41	C
GS-AP-MW-7	8/9/2021 10:46	Turbidity	23.1	NTU
GS-AP-MW-7	8/9/2021 10:51	Conductivity	533.71	uS/cm
GS-AP-MW-7	8/9/2021 10:51	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 10:51	Depth to Water Detail	10.82	ft
GS-AP-MW-7	8/9/2021 10:51	Oxidation Reduction Potention	-68.73	mv
GS-AP-MW-7	8/9/2021 10:51	pH	7.36	SU
GS-AP-MW-7	8/9/2021 10:51	Temperature	19.49	C
GS-AP-MW-7	8/9/2021 10:51	Turbidity	20.1	NTU
GS-AP-MW-7	8/9/2021 10:56	Conductivity	533.8	uS/cm
GS-AP-MW-7	8/9/2021 10:56	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 10:56	Depth to Water Detail	10.84	ft
GS-AP-MW-7	8/9/2021 10:56	Oxidation Reduction Potention	-72.65	mv
GS-AP-MW-7	8/9/2021 10:56	pH	7.38	SU
GS-AP-MW-7	8/9/2021 10:56	Temperature	19.53	C
GS-AP-MW-7	8/9/2021 10:56	Turbidity	18.8	NTU
GS-AP-MW-7	8/9/2021 11:01	Conductivity	532.32	uS/cm

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	8/9/2021 11:01	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 11:01	Depth to Water Detail	10.87	ft
GS-AP-MW-7	8/9/2021 11:01	Oxidation Reduction Potention	-75.51	mv
GS-AP-MW-7	8/9/2021 11:01	pH	7.4	SU
GS-AP-MW-7	8/9/2021 11:01	Temperature	19.28	C
GS-AP-MW-7	8/9/2021 11:01	Turbidity	24.4	NTU
GS-AP-MW-7	8/9/2021 11:06	Conductivity	531.7	uS/cm
GS-AP-MW-7	8/9/2021 11:06	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:06	Depth to Water Detail	10.9	ft
GS-AP-MW-7	8/9/2021 11:06	Oxidation Reduction Potention	-78.61	mv
GS-AP-MW-7	8/9/2021 11:06	pH	7.39	SU
GS-AP-MW-7	8/9/2021 11:06	Temperature	19.28	C
GS-AP-MW-7	8/9/2021 11:06	Turbidity	27.64	NTU
GS-AP-MW-7	8/9/2021 11:11	Conductivity	531.4	uS/cm
GS-AP-MW-7	8/9/2021 11:11	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:11	Depth to Water Detail	10.93	ft
GS-AP-MW-7	8/9/2021 11:11	Oxidation Reduction Potention	-81.52	mv
GS-AP-MW-7	8/9/2021 11:11	pH	7.4	SU
GS-AP-MW-7	8/9/2021 11:11	Temperature	19.41	C
GS-AP-MW-7	8/9/2021 11:11	Turbidity	27.7	NTU
GS-AP-MW-7	8/9/2021 11:16	Conductivity	531.37	uS/cm
GS-AP-MW-7	8/9/2021 11:16	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:16	Depth to Water Detail	10.95	ft
GS-AP-MW-7	8/9/2021 11:16	Oxidation Reduction Potention	-84.38	mv
GS-AP-MW-7	8/9/2021 11:16	pH	7.4	SU
GS-AP-MW-7	8/9/2021 11:16	Temperature	19.29	C
GS-AP-MW-7	8/9/2021 11:16	Turbidity	27.2	NTU
GS-AP-MW-7	8/9/2021 11:21	Conductivity	530.93	uS/cm
GS-AP-MW-7	8/9/2021 11:21	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:21	Depth to Water Detail	11.01	ft
GS-AP-MW-7	8/9/2021 11:21	Oxidation Reduction Potention	-86.52	mv
GS-AP-MW-7	8/9/2021 11:21	pH	7.41	SU
GS-AP-MW-7	8/9/2021 11:21	Temperature	19.42	C
GS-AP-MW-7	8/9/2021 11:21	Turbidity	33.7	NTU
GS-AP-MW-7	8/9/2021 11:26	Conductivity	529.29	uS/cm
GS-AP-MW-7	8/9/2021 11:26	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:26	Depth to Water Detail	11.03	ft
GS-AP-MW-7	8/9/2021 11:26	Oxidation Reduction Potention	-87.99	mv
GS-AP-MW-7	8/9/2021 11:26	pH	7.39	SU
GS-AP-MW-7	8/9/2021 11:26	Temperature	19.45	C
GS-AP-MW-7	8/9/2021 11:26	Turbidity	28.3	NTU
GS-AP-MW-7	8/9/2021 11:31	Conductivity	530.53	uS/cm
GS-AP-MW-7	8/9/2021 11:31	DO	0.24	mg/L

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	8/9/2021 11:31	Depth to Water Detail	11.03	ft
GS-AP-MW-7	8/9/2021 11:31	Oxidation Reduction Potention	-90.03	mv
GS-AP-MW-7	8/9/2021 11:31	pH	7.38	SU
GS-AP-MW-7	8/9/2021 11:31	Temperature	19.19	C
GS-AP-MW-7	8/9/2021 11:31	Turbidity	33.6	NTU
GS-AP-MW-7	8/9/2021 11:36	Conductivity	530.12	uS/cm
GS-AP-MW-7	8/9/2021 11:36	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:36	Depth to Water Detail	11.04	ft
GS-AP-MW-7	8/9/2021 11:36	Oxidation Reduction Potention	-92.66	mv
GS-AP-MW-7	8/9/2021 11:36	pH	7.39	SU
GS-AP-MW-7	8/9/2021 11:36	Temperature	19.3	C
GS-AP-MW-7	8/9/2021 11:36	Turbidity	31.3	NTU
GS-AP-MW-7	8/9/2021 11:41	Conductivity	529.66	uS/cm
GS-AP-MW-7	8/9/2021 11:41	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:41	Depth to Water Detail	11.05	ft
GS-AP-MW-7	8/9/2021 11:41	Oxidation Reduction Potention	-95.1	mv
GS-AP-MW-7	8/9/2021 11:41	pH	7.39	SU
GS-AP-MW-7	8/9/2021 11:41	Temperature	19.35	C
GS-AP-MW-7	8/9/2021 11:41	Turbidity	34.7	NTU
GS-AP-MW-7	8/9/2021 11:46	Conductivity	529.32	uS/cm
GS-AP-MW-7	8/9/2021 11:46	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 11:46	Depth to Water Detail	11.06	ft
GS-AP-MW-7	8/9/2021 11:46	Oxidation Reduction Potention	-97.07	mv
GS-AP-MW-7	8/9/2021 11:46	pH	7.39	SU
GS-AP-MW-7	8/9/2021 11:46	Temperature	19.39	C
GS-AP-MW-7	8/9/2021 11:46	Turbidity	34	NTU
GS-AP-MW-7	8/9/2021 11:51	Conductivity	528.99	uS/cm
GS-AP-MW-7	8/9/2021 11:51	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 11:51	Depth to Water Detail	11.06	ft
GS-AP-MW-7	8/9/2021 11:51	Oxidation Reduction Potention	-96.37	mv
GS-AP-MW-7	8/9/2021 11:51	pH	7.36	SU
GS-AP-MW-7	8/9/2021 11:51	Temperature	19.03	C
GS-AP-MW-7	8/9/2021 11:51	Turbidity	33.6	NTU
GS-AP-MW-7	8/9/2021 11:56	Conductivity	527.73	uS/cm
GS-AP-MW-7	8/9/2021 11:56	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 11:56	Depth to Water Detail	11.08	ft
GS-AP-MW-7	8/9/2021 11:56	Oxidation Reduction Potention	-98.02	mv
GS-AP-MW-7	8/9/2021 11:56	pH	7.4	SU
GS-AP-MW-7	8/9/2021 11:56	Temperature	19.22	C
GS-AP-MW-7	8/9/2021 11:56	Turbidity	34.85	NTU
GS-AP-MW-7	8/9/2021 12:01	Conductivity	528.54	uS/cm
GS-AP-MW-7	8/9/2021 12:01	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 12:01	Depth to Water Detail	11.09	ft

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	8/9/2021 12:01	Oxidation Reduction Potention	-100.79	mv
GS-AP-MW-7	8/9/2021 12:01	pH	7.43	SU
GS-AP-MW-7	8/9/2021 12:01	Temperature	19.22	C
GS-AP-MW-7	8/9/2021 12:01	Turbidity	34.6	NTU
GS-AP-MW-7	8/9/2021 12:06	Conductivity	527.93	uS/cm
GS-AP-MW-7	8/9/2021 12:06	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 12:06	Depth to Water Detail	11.1	ft
GS-AP-MW-7	8/9/2021 12:06	Oxidation Reduction Potention	-102.55	mv
GS-AP-MW-7	8/9/2021 12:06	pH	7.42	SU
GS-AP-MW-7	8/9/2021 12:06	Temperature	19.05	C
GS-AP-MW-7	8/9/2021 12:06	Turbidity	33.82	NTU
GS-AP-MW-7	8/9/2021 12:11	Conductivity	528.24	uS/cm
GS-AP-MW-7	8/9/2021 12:11	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 12:11	Depth to Water Detail	11.14	ft
GS-AP-MW-7	8/9/2021 12:11	Oxidation Reduction Potention	-104.34	mv
GS-AP-MW-7	8/9/2021 12:11	pH	7.46	SU
GS-AP-MW-7	8/9/2021 12:11	Temperature	19.22	C
GS-AP-MW-7	8/9/2021 12:11	Turbidity	37.7	NTU
GS-AP-MW-7	8/9/2021 12:16	Conductivity	527.73	uS/cm
GS-AP-MW-7	8/9/2021 12:16	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 12:16	Depth to Water Detail	11.14	ft
GS-AP-MW-7	8/9/2021 12:16	Oxidation Reduction Potention	-105.99	mv
GS-AP-MW-7	8/9/2021 12:16	pH	7.47	SU
GS-AP-MW-7	8/9/2021 12:16	Temperature	19.32	C
GS-AP-MW-7	8/9/2021 12:16	Turbidity	40.3	NTU
GS-AP-MW-7	8/9/2021 12:21	Conductivity	528.77	uS/cm
GS-AP-MW-7	8/9/2021 12:21	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 12:21	Depth to Water Detail	11.15	ft
GS-AP-MW-7	8/9/2021 12:21	Oxidation Reduction Potention	-105.46	mv
GS-AP-MW-7	8/9/2021 12:21	pH	7.43	SU
GS-AP-MW-7	8/9/2021 12:21	Temperature	19.38	C
GS-AP-MW-7	8/9/2021 12:21	Turbidity	34.5	NTU
GS-AP-MW-7	8/9/2021 12:26	Conductivity	526.08	uS/cm
GS-AP-MW-7	8/9/2021 12:26	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 12:26	Depth to Water Detail	11.17	ft
GS-AP-MW-7	8/9/2021 12:26	Oxidation Reduction Potention	-106.11	mv
GS-AP-MW-7	8/9/2021 12:26	pH	7.42	SU
GS-AP-MW-7	8/9/2021 12:26	Temperature	18.88	C
GS-AP-MW-7	8/9/2021 12:26	Turbidity	28.3	NTU
GS-AP-MW-7	8/9/2021 12:31	Conductivity	526.91	uS/cm
GS-AP-MW-7	8/9/2021 12:31	DO	0.23	mg/L
GS-AP-MW-7	8/9/2021 12:31	Depth to Water Detail	11.17	ft
GS-AP-MW-7	8/9/2021 12:31	Oxidation Reduction Potention	-107.53	mv

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-7	8/9/2021 12:31	pH	7.47	SU
GS-AP-MW-7	8/9/2021 12:31	Temperature	18.76	C
GS-AP-MW-7	8/9/2021 12:31	Turbidity	33.6	NTU
GS-AP-MW-7	8/9/2021 12:36	Conductivity	527.1	uS/cm
GS-AP-MW-7	8/9/2021 12:36	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 12:36	Depth to Water Detail	11.19	ft
GS-AP-MW-7	8/9/2021 12:36	Oxidation Reduction Potention	-109.07	mv
GS-AP-MW-7	8/9/2021 12:36	pH	7.51	SU
GS-AP-MW-7	8/9/2021 12:36	Temperature	19.02	C
GS-AP-MW-7	8/9/2021 12:36	Turbidity	29.5	NTU
GS-AP-MW-7	8/9/2021 12:41	Conductivity	526.95	uS/cm
GS-AP-MW-7	8/9/2021 12:41	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 12:41	Depth to Water Detail	11.19	ft
GS-AP-MW-7	8/9/2021 12:41	Oxidation Reduction Potention	-111.06	mv
GS-AP-MW-7	8/9/2021 12:41	pH	7.54	SU
GS-AP-MW-7	8/9/2021 12:41	Temperature	19.2	C
GS-AP-MW-7	8/9/2021 12:41	Turbidity	33.6	NTU
GS-AP-MW-7	8/9/2021 12:46	Conductivity	526.42	uS/cm
GS-AP-MW-7	8/9/2021 12:46	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 12:46	Depth to Water Detail	11.19	ft
GS-AP-MW-7	8/9/2021 12:46	Oxidation Reduction Potention	-112.57	mv
GS-AP-MW-7	8/9/2021 12:46	pH	7.55	SU
GS-AP-MW-7	8/9/2021 12:46	Temperature	19.22	C
GS-AP-MW-7	8/9/2021 12:46	Turbidity	33.4	NTU
GS-AP-MW-7	8/9/2021 12:51	Conductivity	526.21	uS/cm
GS-AP-MW-7	8/9/2021 12:51	DO	0.24	mg/L
GS-AP-MW-7	8/9/2021 12:51	Depth to Water Detail	11.2	ft
GS-AP-MW-7	8/9/2021 12:51	Oxidation Reduction Potention	-111.68	mv
GS-AP-MW-7	8/9/2021 12:51	pH	7.49	SU
GS-AP-MW-7	8/9/2021 12:51	Temperature	19.23	C
GS-AP-MW-7	8/9/2021 12:51	Turbidity	34.2	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-40H	8/10/2021 9:45	Conductivity	1790.19	uS/cm
GS-AP-MW-40H	8/10/2021 9:45	DO	1.37	mg/L
GS-AP-MW-40H	8/10/2021 9:45	Depth to Water Detail	82.9	ft
GS-AP-MW-40H	8/10/2021 9:45	Oxidation Reduction Potention	124.21	mv
GS-AP-MW-40H	8/10/2021 9:45	pH	6.65	SU
GS-AP-MW-40H	8/10/2021 9:45	Temperature	21.1	C
GS-AP-MW-40H	8/10/2021 9:45	Turbidity	12.7	NTU
GS-AP-MW-40H	8/10/2021 9:50	Conductivity	1756.83	uS/cm
GS-AP-MW-40H	8/10/2021 9:50	DO	1.38	mg/L
GS-AP-MW-40H	8/10/2021 9:50	Depth to Water Detail	82.93	ft
GS-AP-MW-40H	8/10/2021 9:50	Oxidation Reduction Potention	108.73	mv
GS-AP-MW-40H	8/10/2021 9:50	pH	6.62	SU
GS-AP-MW-40H	8/10/2021 9:50	Temperature	21.18	C
GS-AP-MW-40H	8/10/2021 9:50	Turbidity	7.02	NTU
GS-AP-MW-40H	8/10/2021 9:55	Conductivity	1728.71	uS/cm
GS-AP-MW-40H	8/10/2021 9:55	DO	1.41	mg/L
GS-AP-MW-40H	8/10/2021 9:55	Depth to Water Detail	83.14	ft
GS-AP-MW-40H	8/10/2021 9:55	Oxidation Reduction Potention	92.68	mv
GS-AP-MW-40H	8/10/2021 9:55	pH	6.59	SU
GS-AP-MW-40H	8/10/2021 9:55	Temperature	21.22	C
GS-AP-MW-40H	8/10/2021 9:55	Turbidity	5.4	NTU
GS-AP-MW-40H	8/10/2021 10:00	Conductivity	1695.4	uS/cm
GS-AP-MW-40H	8/10/2021 10:00	DO	1.34	mg/L
GS-AP-MW-40H	8/10/2021 10:00	Depth to Water Detail	83.21	ft
GS-AP-MW-40H	8/10/2021 10:00	Oxidation Reduction Potention	77.18	mv
GS-AP-MW-40H	8/10/2021 10:00	pH	6.56	SU
GS-AP-MW-40H	8/10/2021 10:00	Temperature	21.22	C
GS-AP-MW-40H	8/10/2021 10:00	Turbidity	2.52	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-26H	8/10/2021 11:31	Conductivity	540.83	uS/cm
GS-AP-MW-26H	8/10/2021 11:31	DO	0.17	mg/L
GS-AP-MW-26H	8/10/2021 11:31	Depth to Water Detail	104.42	ft
GS-AP-MW-26H	8/10/2021 11:31	Oxidation Reduction Potention	-4.78	mv
GS-AP-MW-26H	8/10/2021 11:31	pH	6.49	SU
GS-AP-MW-26H	8/10/2021 11:31	Temperature	18.1	C
GS-AP-MW-26H	8/10/2021 11:31	Turbidity	2.07	NTU
GS-AP-MW-26H	8/10/2021 11:36	Conductivity	486.56	uS/cm
GS-AP-MW-26H	8/10/2021 11:36	DO	0.16	mg/L
GS-AP-MW-26H	8/10/2021 11:36	Depth to Water Detail	108.86	ft
GS-AP-MW-26H	8/10/2021 11:36	Oxidation Reduction Potention	-15.95	mv
GS-AP-MW-26H	8/10/2021 11:36	pH	6.51	SU
GS-AP-MW-26H	8/10/2021 11:36	Temperature	18.12	C
GS-AP-MW-26H	8/10/2021 11:36	Turbidity	3	NTU
GS-AP-MW-26H	8/10/2021 11:41	Conductivity	473.47	uS/cm
GS-AP-MW-26H	8/10/2021 11:41	DO	0.16	mg/L
GS-AP-MW-26H	8/10/2021 11:41	Depth to Water Detail	112.46	ft
GS-AP-MW-26H	8/10/2021 11:41	Oxidation Reduction Potention	-22.99	mv
GS-AP-MW-26H	8/10/2021 11:41	pH	6.56	SU
GS-AP-MW-26H	8/10/2021 11:41	Temperature	18.25	C
GS-AP-MW-26H	8/10/2021 11:41	Turbidity	1.44	NTU
GS-AP-MW-26H	8/10/2021 11:46	Conductivity	474.09	uS/cm
GS-AP-MW-26H	8/10/2021 11:46	DO	0.4	mg/L
GS-AP-MW-26H	8/10/2021 11:46	Depth to Water Detail	112.46	ft
GS-AP-MW-26H	8/10/2021 11:46	Oxidation Reduction Potention	-30.13	mv
GS-AP-MW-26H	8/10/2021 11:46	pH	6.68	SU
GS-AP-MW-26H	8/10/2021 11:46	Temperature	20.93	C
GS-AP-MW-26H	8/10/2021 11:46	Turbidity	2.99	NTU
GS-AP-MW-26H	8/10/2021 11:51	Conductivity	471.62	uS/cm
GS-AP-MW-26H	8/10/2021 11:51	DO	0.43	mg/L
GS-AP-MW-26H	8/10/2021 11:51	Depth to Water Detail	112.46	ft
GS-AP-MW-26H	8/10/2021 11:51	Oxidation Reduction Potention	-35.19	mv
GS-AP-MW-26H	8/10/2021 11:51	pH	6.69	SU
GS-AP-MW-26H	8/10/2021 11:51	Temperature	21.15	C
GS-AP-MW-26H	8/10/2021 11:51	Turbidity	1.07	NTU

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WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-8	8/10/2021 13:09	Conductivity	129.01	uS/cm
GS-AP-MW-8	8/10/2021 13:09	DO	1.17	mg/L
GS-AP-MW-8	8/10/2021 13:09	Depth to Water Detail	45.24	ft
GS-AP-MW-8	8/10/2021 13:09	Oxidation Reduction Potention	65.86	mv
GS-AP-MW-8	8/10/2021 13:09	pH	5.04	SU
GS-AP-MW-8	8/10/2021 13:09	Temperature	24.46	C
GS-AP-MW-8	8/10/2021 13:09	Turbidity	5.09	NTU
GS-AP-MW-8	8/10/2021 13:14	Conductivity	128.64	uS/cm
GS-AP-MW-8	8/10/2021 13:14	DO	1.1	mg/L
GS-AP-MW-8	8/10/2021 13:14	Depth to Water Detail	45.36	ft
GS-AP-MW-8	8/10/2021 13:14	Oxidation Reduction Potention	75.41	mv
GS-AP-MW-8	8/10/2021 13:14	pH	4.98	SU
GS-AP-MW-8	8/10/2021 13:14	Temperature	24.03	C
GS-AP-MW-8	8/10/2021 13:14	Turbidity	4.18	NTU
GS-AP-MW-8	8/10/2021 13:19	Conductivity	128.97	uS/cm
GS-AP-MW-8	8/10/2021 13:19	DO	1.14	mg/L
GS-AP-MW-8	8/10/2021 13:19	Depth to Water Detail	45.44	ft
GS-AP-MW-8	8/10/2021 13:19	Oxidation Reduction Potention	80.35	mv
GS-AP-MW-8	8/10/2021 13:19	pH	5	SU
GS-AP-MW-8	8/10/2021 13:19	Temperature	24.19	C
GS-AP-MW-8	8/10/2021 13:19	Turbidity	4.78	NTU
GS-AP-MW-8	8/10/2021 13:24	Conductivity	128.3	uS/cm
GS-AP-MW-8	8/10/2021 13:24	DO	1.18	mg/L
GS-AP-MW-8	8/10/2021 13:24	Depth to Water Detail	45.51	ft
GS-AP-MW-8	8/10/2021 13:24	Oxidation Reduction Potention	82.95	mv
GS-AP-MW-8	8/10/2021 13:24	pH	5.02	SU
GS-AP-MW-8	8/10/2021 13:24	Temperature	24.13	C
GS-AP-MW-8	8/10/2021 13:24	Turbidity	2.74	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16D	8/9/2021 11:00	Conductivity	350.47	uS/cm
GS-AP-MW-16D	8/9/2021 11:00	DO	0.85	mg/L
GS-AP-MW-16D	8/9/2021 11:00	Depth to Water Detail	148.4	ft
GS-AP-MW-16D	8/9/2021 11:00	Oxidation Reduction Potention	44.23	mv
GS-AP-MW-16D	8/9/2021 11:00	pH	7.47	SU
GS-AP-MW-16D	8/9/2021 11:00	Temperature	20.8	C
GS-AP-MW-16D	8/9/2021 11:00	Turbidity	8.53	NTU
GS-AP-MW-16D	8/9/2021 11:05	Conductivity	351.32	uS/cm
GS-AP-MW-16D	8/9/2021 11:05	DO	0.64	mg/L
GS-AP-MW-16D	8/9/2021 11:05	Depth to Water Detail	148.4	ft
GS-AP-MW-16D	8/9/2021 11:05	Oxidation Reduction Potention		mv
GS-AP-MW-16D	8/9/2021 11:05	pH		SU
GS-AP-MW-16D	8/9/2021 11:05	Temperature	21.03	C
GS-AP-MW-16D	8/9/2021 11:05	Turbidity	8.26	NTU
GS-AP-MW-16D	8/9/2021 11:07	Conductivity	350.91	uS/cm
GS-AP-MW-16D	8/9/2021 11:07	DO	0.63	mg/L
GS-AP-MW-16D	8/9/2021 11:07	Depth to Water Detail	149.4	ft
GS-AP-MW-16D	8/9/2021 11:07	Oxidation Reduction Potention	27.3	mv
GS-AP-MW-16D	8/9/2021 11:07	pH	7.55	SU
GS-AP-MW-16D	8/9/2021 11:07	Temperature	20.98	C
GS-AP-MW-16D	8/9/2021 11:07	Turbidity	9.76	NTU
GS-AP-MW-16D	8/9/2021 11:12	Conductivity	348.18	uS/cm
GS-AP-MW-16D	8/9/2021 11:12	DO	0.56	mg/L
GS-AP-MW-16D	8/9/2021 11:12	Depth to Water Detail	149.73	ft
GS-AP-MW-16D	8/9/2021 11:12	Oxidation Reduction Potention	18.98	mv
GS-AP-MW-16D	8/9/2021 11:12	pH	7.56	SU
GS-AP-MW-16D	8/9/2021 11:12	Temperature	20.74	C
GS-AP-MW-16D	8/9/2021 11:12	Turbidity	8.1	NTU
GS-AP-MW-16D	8/9/2021 11:17	Conductivity	348.02	uS/cm
GS-AP-MW-16D	8/9/2021 11:17	DO	0.53	mg/L
GS-AP-MW-16D	8/9/2021 11:17	Depth to Water Detail	150.35	ft
GS-AP-MW-16D	8/9/2021 11:17	Oxidation Reduction Potention	16.71	mv
GS-AP-MW-16D	8/9/2021 11:17	pH	7.55	SU
GS-AP-MW-16D	8/9/2021 11:17	Temperature	21.04	C
GS-AP-MW-16D	8/9/2021 11:17	Turbidity	8.45	NTU
GS-AP-MW-16D	8/9/2021 11:22	Conductivity	344.96	uS/cm
GS-AP-MW-16D	8/9/2021 11:22	DO	0.52	mg/L
GS-AP-MW-16D	8/9/2021 11:22	Depth to Water Detail	150.6	ft
GS-AP-MW-16D	8/9/2021 11:22	Oxidation Reduction Potention	9.67	mv
GS-AP-MW-16D	8/9/2021 11:22	pH	7.55	SU
GS-AP-MW-16D	8/9/2021 11:22	Temperature	20.88	C
GS-AP-MW-16D	8/9/2021 11:22	Turbidity	9.31	NTU
GS-AP-MW-16D	8/9/2021 11:27	Conductivity	341.72	uS/cm

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-16D	8/9/2021 11:27	DO	0.52	mg/L
GS-AP-MW-16D	8/9/2021 11:27	Depth to Water Detail	151.02	ft
GS-AP-MW-16D	8/9/2021 11:27	Oxidation Reduction Potention	4.74	mv
GS-AP-MW-16D	8/9/2021 11:27	pH	7.53	SU
GS-AP-MW-16D	8/9/2021 11:27	Temperature	20.83	C
GS-AP-MW-16D	8/9/2021 11:27	Turbidity	8.87	NTU
GS-AP-MW-16D	8/9/2021 11:32	Conductivity	342.12	uS/cm
GS-AP-MW-16D	8/9/2021 11:32	DO	0.52	mg/L
GS-AP-MW-16D	8/9/2021 11:32	Depth to Water Detail	151.3	ft
GS-AP-MW-16D	8/9/2021 11:32	Oxidation Reduction Potention	3.06	mv
GS-AP-MW-16D	8/9/2021 11:32	pH	7.54	SU
GS-AP-MW-16D	8/9/2021 11:32	Temperature	21.06	C
GS-AP-MW-16D	8/9/2021 11:32	Turbidity	8.9	NTU
GS-AP-MW-16D	8/9/2021 11:37	Conductivity	340.91	uS/cm
GS-AP-MW-16D	8/9/2021 11:37	DO	0.52	mg/L
GS-AP-MW-16D	8/9/2021 11:37	Depth to Water Detail	151.42	ft
GS-AP-MW-16D	8/9/2021 11:37	Oxidation Reduction Potention	-0.4	mv
GS-AP-MW-16D	8/9/2021 11:37	pH	7.53	SU
GS-AP-MW-16D	8/9/2021 11:37	Temperature	20.95	C
GS-AP-MW-16D	8/9/2021 11:37	Turbidity	8.44	NTU
GS-AP-MW-16D	8/9/2021 11:42	Conductivity	341.38	uS/cm
GS-AP-MW-16D	8/9/2021 11:42	DO	0.51	mg/L
GS-AP-MW-16D	8/9/2021 11:42	Depth to Water Detail	151.61	ft
GS-AP-MW-16D	8/9/2021 11:42	Oxidation Reduction Potention	-3.54	mv
GS-AP-MW-16D	8/9/2021 11:42	pH	7.49	SU
GS-AP-MW-16D	8/9/2021 11:42	Temperature	21.08	C
GS-AP-MW-16D	8/9/2021 11:42	Turbidity	8.46	NTU
GS-AP-MW-16D	8/9/2021 11:47	Conductivity	339.56	uS/cm
GS-AP-MW-16D	8/9/2021 11:47	DO	0.5	mg/L
GS-AP-MW-16D	8/9/2021 11:47	Depth to Water Detail	151.75	ft
GS-AP-MW-16D	8/9/2021 11:47	Oxidation Reduction Potention	-7.22	mv
GS-AP-MW-16D	8/9/2021 11:47	pH	7.53	SU
GS-AP-MW-16D	8/9/2021 11:47	Temperature	20.65	C
GS-AP-MW-16D	8/9/2021 11:47	Turbidity	8.19	NTU
GS-AP-MW-16D	8/9/2021 11:52	Conductivity	338.98	uS/cm
GS-AP-MW-16D	8/9/2021 11:52	DO	0.5	mg/L
GS-AP-MW-16D	8/9/2021 11:52	Depth to Water Detail	151.89	ft
GS-AP-MW-16D	8/9/2021 11:52	Oxidation Reduction Potention	-10.83	mv
GS-AP-MW-16D	8/9/2021 11:52	pH	7.53	SU
GS-AP-MW-16D	8/9/2021 11:52	Temperature	20.65	C
GS-AP-MW-16D	8/9/2021 11:52	Turbidity	7.78	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-PZ-16	8/9/2021 12:46	Conductivity	596.17	uS/cm
GS-AP-PZ-16	8/9/2021 12:46	DO	0.64	mg/L
GS-AP-PZ-16	8/9/2021 12:46	Depth to Water Detail	186.19	ft
GS-AP-PZ-16	8/9/2021 12:46	Oxidation Reduction Potention	11.92	mv
GS-AP-PZ-16	8/9/2021 12:46	pH	9.28	SU
GS-AP-PZ-16	8/9/2021 12:46	Temperature	19.13	C
GS-AP-PZ-16	8/9/2021 12:46	Turbidity	43.5	NTU
GS-AP-PZ-16	8/9/2021 12:51	Conductivity	599.97	uS/cm
GS-AP-PZ-16	8/9/2021 12:51	DO	0.56	mg/L
GS-AP-PZ-16	8/9/2021 12:51	Depth to Water Detail	186.19	ft
GS-AP-PZ-16	8/9/2021 12:51	Oxidation Reduction Potention	-5.94	mv
GS-AP-PZ-16	8/9/2021 12:51	pH	9.46	SU
GS-AP-PZ-16	8/9/2021 12:51	Temperature	18.64	C
GS-AP-PZ-16	8/9/2021 12:51	Turbidity	16.7	NTU
GS-AP-PZ-16	8/9/2021 12:56	Conductivity	599.35	uS/cm
GS-AP-PZ-16	8/9/2021 12:56	DO	0.45	mg/L
GS-AP-PZ-16	8/9/2021 12:56	Depth to Water Detail	186.19	ft
GS-AP-PZ-16	8/9/2021 12:56	Oxidation Reduction Potention	-12.51	mv
GS-AP-PZ-16	8/9/2021 12:56	pH	9.35	SU
GS-AP-PZ-16	8/9/2021 12:56	Temperature	18.9	C
GS-AP-PZ-16	8/9/2021 12:56	Turbidity	7.35	NTU
GS-AP-PZ-16	8/9/2021 13:01	Conductivity	593.17	uS/cm
GS-AP-PZ-16	8/9/2021 13:01	DO	0.38	mg/L
GS-AP-PZ-16	8/9/2021 13:01	Depth to Water Detail	186.19	ft
GS-AP-PZ-16	8/9/2021 13:01	Oxidation Reduction Potention	-18.41	mv
GS-AP-PZ-16	8/9/2021 13:01	pH	9.16	SU
GS-AP-PZ-16	8/9/2021 13:01	Temperature	18.76	C
GS-AP-PZ-16	8/9/2021 13:01	Turbidity	6.55	NTU
GS-AP-PZ-16	8/9/2021 13:06	Conductivity	589.46	uS/cm
GS-AP-PZ-16	8/9/2021 13:06	DO	0.35	mg/L
GS-AP-PZ-16	8/9/2021 13:06	Depth to Water Detail	186.19	ft
GS-AP-PZ-16	8/9/2021 13:06	Oxidation Reduction Potention	-25.75	mv
GS-AP-PZ-16	8/9/2021 13:06	pH	9.13	SU
GS-AP-PZ-16	8/9/2021 13:06	Temperature	18.71	C
GS-AP-PZ-16	8/9/2021 13:06	Turbidity	6.64	NTU
GS-AP-PZ-16	8/9/2021 13:11	Conductivity	590.51	uS/cm
GS-AP-PZ-16	8/9/2021 13:11	DO	0.32	mg/L
GS-AP-PZ-16	8/9/2021 13:11	Depth to Water Detail	186.19	ft
GS-AP-PZ-16	8/9/2021 13:11	Oxidation Reduction Potention	-29.93	mv
GS-AP-PZ-16	8/9/2021 13:11	pH	9.09	SU
GS-AP-PZ-16	8/9/2021 13:11	Temperature	18.8	C
GS-AP-PZ-16	8/9/2021 13:11	Turbidity	5.94	NTU

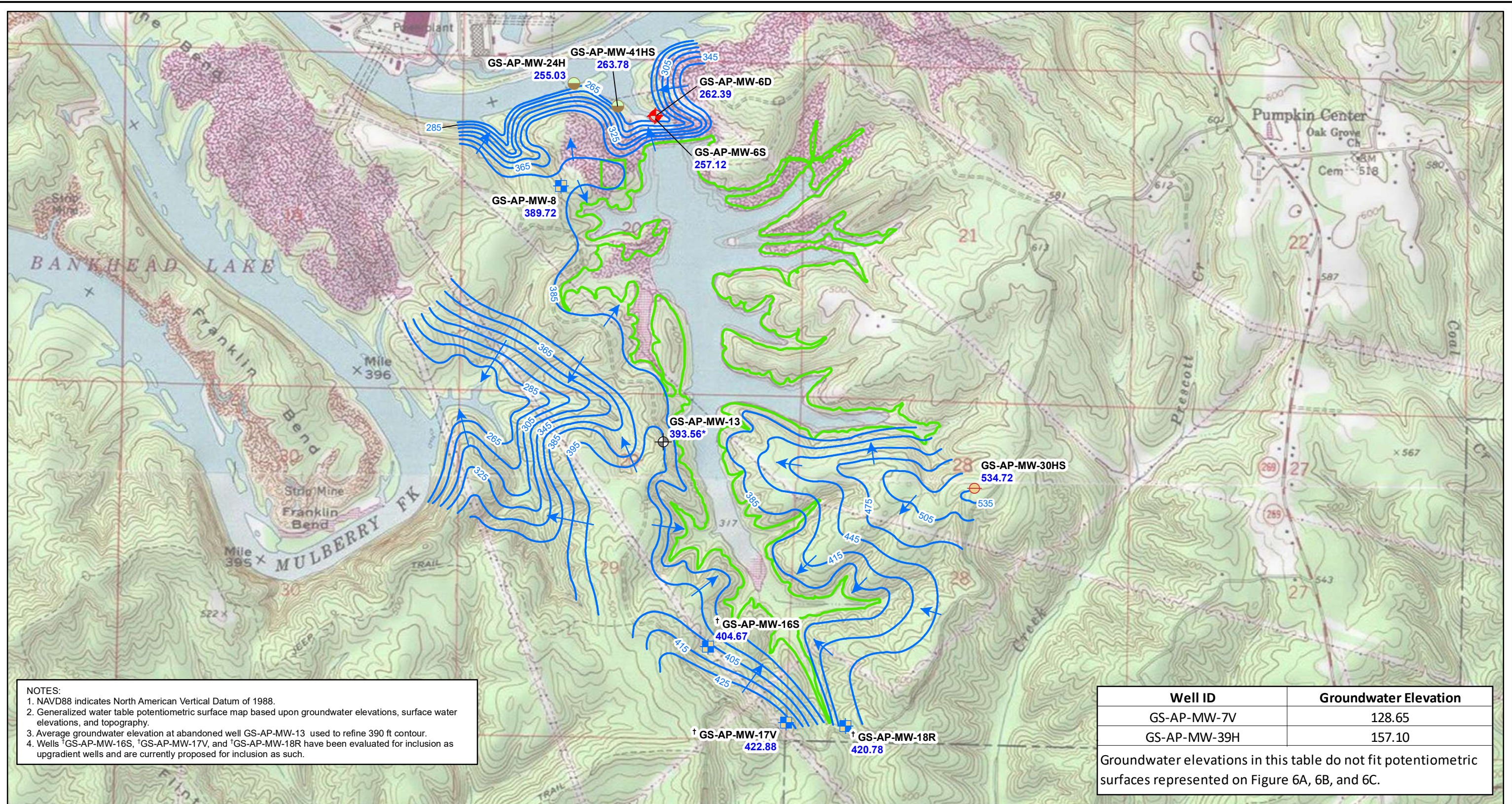
**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-32H	8/10/2021 8:45	Conductivity	676.41	uS/cm
GS-AP-MW-32H	8/10/2021 8:45	DO	1.21	mg/L
GS-AP-MW-32H	8/10/2021 8:45	Depth to Water Detail	259.4	ft
GS-AP-MW-32H	8/10/2021 8:45	Oxidation Reduction Potention	-12.95	mv
GS-AP-MW-32H	8/10/2021 8:45	pH	8.27	SU
GS-AP-MW-32H	8/10/2021 8:45	Temperature	21.58	C
GS-AP-MW-32H	8/10/2021 8:45	Turbidity	1.79	NTU
GS-AP-MW-32H	8/10/2021 9:06	Conductivity	667.85	uS/cm
GS-AP-MW-32H	8/10/2021 9:06	DO	0.97	mg/L
GS-AP-MW-32H	8/10/2021 9:06	Depth to Water Detail	261.22	ft
GS-AP-MW-32H	8/10/2021 9:06	Oxidation Reduction Potention	-28.13	mv
GS-AP-MW-32H	8/10/2021 9:06	pH	8.35	SU
GS-AP-MW-32H	8/10/2021 9:06	Temperature	21.64	C
GS-AP-MW-32H	8/10/2021 9:06	Turbidity	1.65	NTU

**Alabama Power Company
Plant Gorgas Ash Pond**

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
GS-AP-MW-28H	8/9/2021 14:58	Conductivity	770.03	uS/cm
GS-AP-MW-28H	8/9/2021 14:58	DO	0.34	mg/L
GS-AP-MW-28H	8/9/2021 14:58	Depth to Water Detail	162.05	ft
GS-AP-MW-28H	8/9/2021 14:58	Oxidation Reduction Potention	-56.53	mv
GS-AP-MW-28H	8/9/2021 14:58	pH	8.21	SU
GS-AP-MW-28H	8/9/2021 14:58	Temperature	18.55	C
GS-AP-MW-28H	8/9/2021 14:58	Turbidity	1.8	NTU
GS-AP-MW-28H	8/9/2021 15:03	Conductivity	718.57	uS/cm
GS-AP-MW-28H	8/9/2021 15:03	DO	0.29	mg/L
GS-AP-MW-28H	8/9/2021 15:03	Depth to Water Detail	162.05	ft
GS-AP-MW-28H	8/9/2021 15:03	Oxidation Reduction Potention	-83.88	mv
GS-AP-MW-28H	8/9/2021 15:03	pH	8.37	SU
GS-AP-MW-28H	8/9/2021 15:03	Temperature	18.31	C
GS-AP-MW-28H	8/9/2021 15:03	Turbidity	0.99	NTU
GS-AP-MW-28H	8/9/2021 15:08	Conductivity	702.86	uS/cm
GS-AP-MW-28H	8/9/2021 15:08	DO	0.27	mg/L
GS-AP-MW-28H	8/9/2021 15:08	Depth to Water Detail	162.05	ft
GS-AP-MW-28H	8/9/2021 15:08	Oxidation Reduction Potention	-101.96	mv
GS-AP-MW-28H	8/9/2021 15:08	pH	8.42	SU
GS-AP-MW-28H	8/9/2021 15:08	Temperature	18.41	C
GS-AP-MW-28H	8/9/2021 15:08	Turbidity	0.58	NTU
GS-AP-MW-28H	8/9/2021 15:13	Conductivity	694.44	uS/cm
GS-AP-MW-28H	8/9/2021 15:13	DO	0.25	mg/L
GS-AP-MW-28H	8/9/2021 15:13	Depth to Water Detail	162.05	ft
GS-AP-MW-28H	8/9/2021 15:13	Oxidation Reduction Potention	-110.33	mv
GS-AP-MW-28H	8/9/2021 15:13	pH	8.47	SU
GS-AP-MW-28H	8/9/2021 15:13	Temperature	18.34	C
GS-AP-MW-28H	8/9/2021 15:13	Turbidity	0.79	NTU
GS-AP-MW-28H	8/9/2021 15:18	Conductivity	689.68	uS/cm
GS-AP-MW-28H	8/9/2021 15:18	DO	0.26	mg/L
GS-AP-MW-28H	8/9/2021 15:18	Depth to Water Detail	162.05	ft
GS-AP-MW-28H	8/9/2021 15:18	Oxidation Reduction Potention	-122.89	mv
GS-AP-MW-28H	8/9/2021 15:18	pH	8.5	SU
GS-AP-MW-28H	8/9/2021 15:18	Temperature	18.18	C
GS-AP-MW-28H	8/9/2021 15:18	Turbidity	1.07	NTU

Appendix E



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-7V	128.65
GS-AP-MW-39H	157.10

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

Legend

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

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DATE
12/22/2021

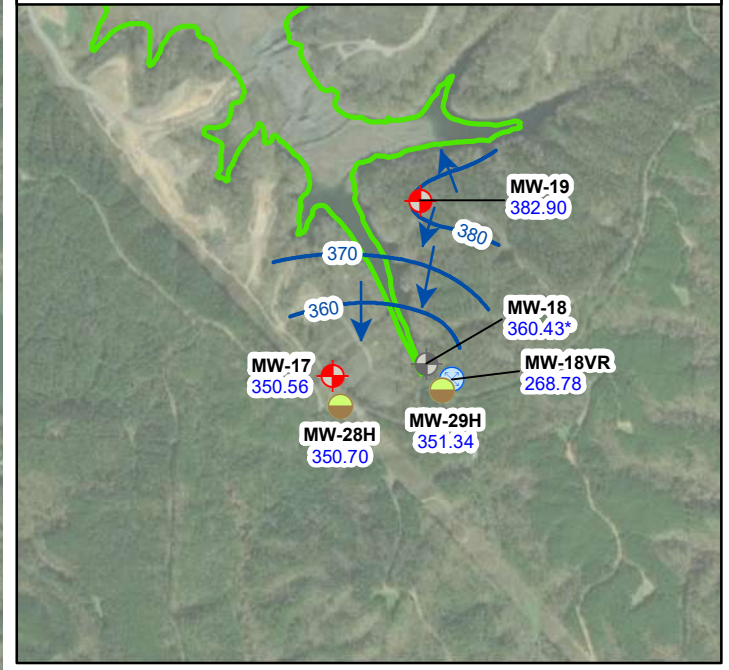
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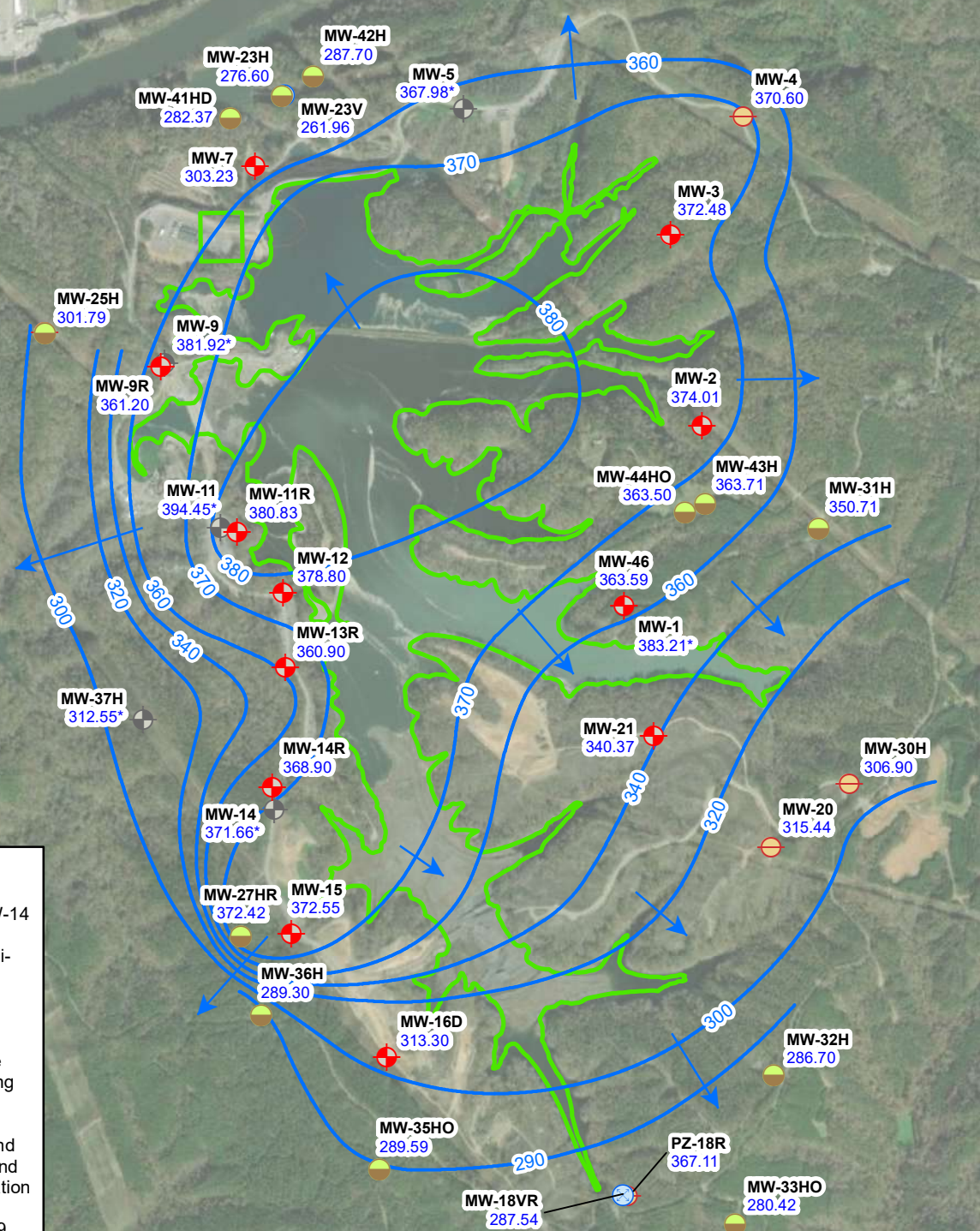
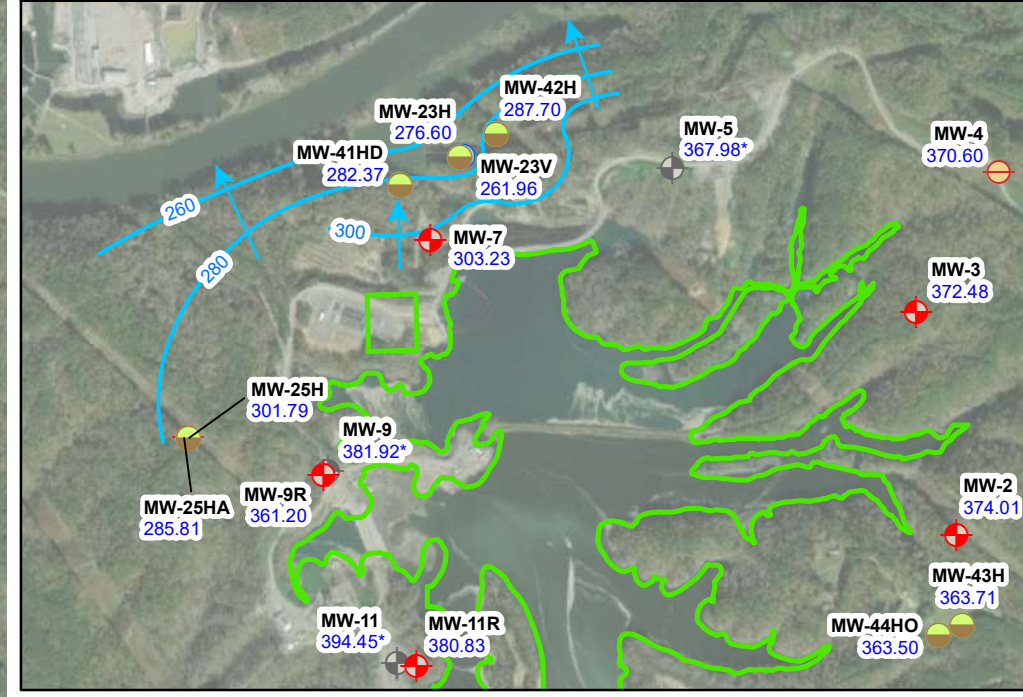
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POTENTIOMETRIC SURFACE CONTOUR MAP (UPPER) WATER TABLE AQUIFER
 DECEMBER 16, 2021
 PLANT GORGAS ASH POND

FIGURE NO

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



GENERALIZED POTENTIOMETRIC SURFACE CONTOUR MAP - BASE OF PRATT TO GILLESPIY 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. However, these wells have yet to be sampled and are awaiting final well development and review prior to sampling.
 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-9, 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-7V	128.65
GS-AP-MW-39H	157.10

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 Gillespy Aquifer Transition)
- Approximate Groundwater Flow Direction (Base of Pratt to Gillespy Aquifer Transition)
- Ash Pond Boundary
- Well ID
- Groundwater Elevation

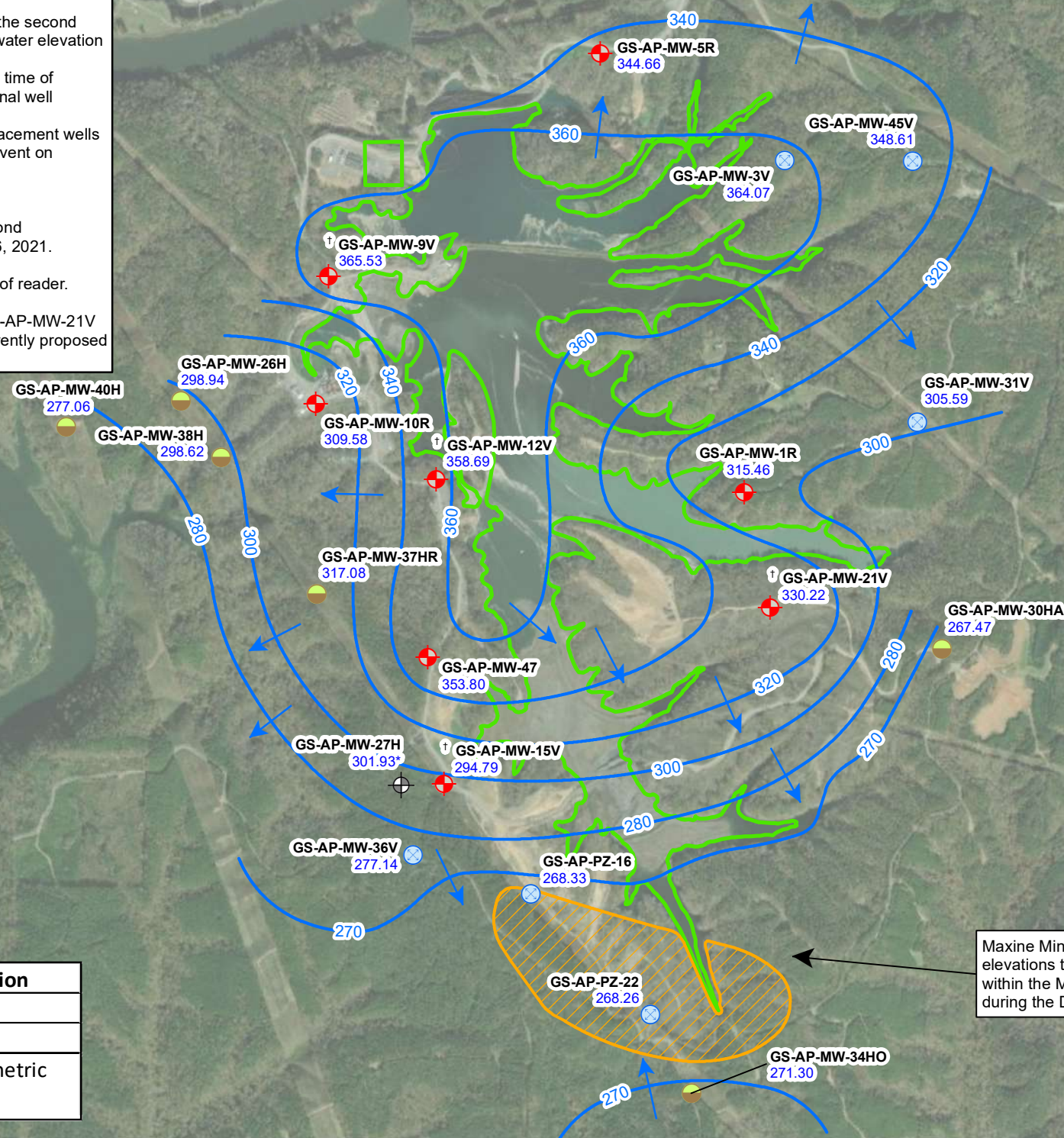
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FIGURE NO:



- 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. However, this well has yet to be sampled and is awaiting final well development and review prior to sampling.
 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. Additionally, 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 268.3 ft NAVD88 during the December 2021 groundwater elevation measuring event.

Well ID	Groundwater Elevation
GS-AP-MW-7V	128.65
GS-AP-MW-39H	157.10

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


Legend

- Downgradient Monitoring Well (Red diamond with cross)
- Horizontal Delineation Well (Green circle)
- Vertical Delineation Well (Blue circle)
- Piezometer (Orange circle)
- Abandoned Well (Black circle with cross)
- Approximate Groundwater Flow Direction (Blue arrow)
- Potentiometric Surface Contour (ft NAVD88) (Blue line)
- Maxine Mine (Orange hatched area)
- Ash Pond Boundary (Green outline)

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



SCALE	1:18000	DRAWING TITLE POTENTIOMETRIC SURFACE CONTOUR MAP AMERICAN AQUIFER DECEMBER 16, 2021 PLANT GORGAS ASH POND
DATE	1/4/2022	
DRAWN BY	KWR	FIGURE NO
CHECKED BY	GBD	



Appendix F



Appendix F. Relative Percent Difference (RPD) Calculations

Plant Gorgas Ash Pond
07/27/2021 - 07/27/2021

GS-AP-MW-23H				
Sample Date = 7/27/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	75.5	76.8	1.71%
Chloride	mg/L	2.48	2.25	9.73%
Fluoride	mg/L	0.13	0.118	9.68%
Sulfate	mg/L	339	336	0.89%
TDS	mg/L	580	581	0.17%
Arsenic	mg/L	0.0474	0.0494	4.13%
Barium	mg/L	0.0133	0.0148	10.68%
Cobalt	mg/L	0.00049	0.0005	3.43%
Lithium	mg/L	0.0309	0.0308	0.32%
Molybdenum	mg/L	0.0009	0.00081	10.60%
GS-AP-MW-34HO				
Sample Date = 7/27/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Boron	mg/L	0.108	0.106	1.87%
Calcium	mg/L	100	102	1.98%
Chloride	mg/L	386	371	3.96%
Fluoride	mg/L	0.408	0.366	10.85%
Sulfate	mg/L	1580	1580	0.00%
TDS	mg/L	2930	2940	0.34%
Arsenic	mg/L	0.00179	0.00185	3.30%
Barium	mg/L	0.0668	0.0649	2.89%
Lithium	mg/L	0.207	0.205	0.97%
Molybdenum	mg/L	0.0143	0.0138	3.56%
GS-AP-MW-44HO				
Sample Date = 7/27/2021				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.46	1.46	0.00%
Chloride	mg/L	33.4	33.8	1.19%
Fluoride	mg/L	0.254	0.254	0.00%
Sulfate	mg/L	36.9	38.6	4.50%
TDS	mg/L	510	506	0.79%
Arsenic	mg/L	0.00034	0.00037	8.38%
Barium	mg/L	0.0749	0.0758	1.19%
Lithium	mg/L	0.0567	0.0568	0.18%



Appendix F. Relative Percent Difference (RPD) Calculations

Plant Gorgas Ash Pond
07/27/2021 - 07/27/2021

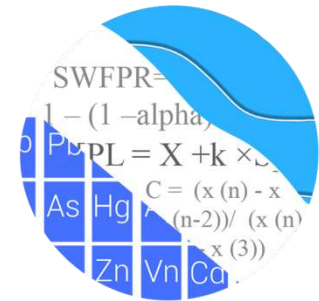
Molybdenum	mg/L	0.0035	0.00361	3.09%
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Notes:

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).

Appendix G

GROUNDWATER STATS CONSULTING



May 26, 2021

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Gorgas Ash Pond
1st Semi-Annual Statistical Analysis – February 2021 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 1st Semi-Annual September 2021 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 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
- **Downgradient wells:** GS-AP-MW-2, GS-AP-MW-6S, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, and GS-AP-MW-21
- **Delineation wells:** GS-AP-PZ-16, GS-AP-PZ-18, GS-AP-MW-12V, GS-AP-MW-18V, GS-AP-PZ-22, GS-AP-MW-23H, GS-AP-MW-24H, GS-AP-MW-26H, GS-AP-MW-28H, GS-AP-MW-29H, GS-AP-MW-9V, GS-AP-MW-15V, GS-AP-MW-21V, 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-40HO, GS-AP-MW-41HD, GS-AP-MW-42H, GS-AP-MW-43H, GS-AP-MW-44HO, and GS-AP-MW-6V

- **Piezometers:** GS-AP-MW-1, GS-AP-MW-3, GS-AP-MW-4, GS-AP-MW-16S, GS-AP-MW-7V, GS-AP-MW-7VR, GS-AP-MW-20, GS-AP-MW-25H, GS-AP-MW-27H, GS-AP-MW-30H, GS-AP-MW-30HS, and GS-AP-MW-41HS
- **Potential Upgradient:** GS-AP-MW-16S
- **Potential Downgradient:** GS-AP-MW-3

Note that delineation wells did not require statistics; therefore, they were plotted only on time series and box plots. While data from piezometers were not plotted on time series or box plots, piezometer GS-AP-MW-16S is considered a potential upgradient well and piezometer GS-AP-MW-3 is considered a potential downgradient well; therefore, these data were plotted on time series and box plots. 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 Andrew Collins, Project Manager for 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 with 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: 33
- # 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 and may be seen on the Trend Test Summary Table. These trends required no adjustments at this time, however, because the period of record is short and/or 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 2021

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 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 February 2021 to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). Note that during this analysis, the reporting limit for boron increased from <0.1 mg/L to <0.1015 mg/L. This resulted in a slight increase in statistical limits, but the prediction limit findings were consistent with those from the Fall 2020 report.

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.

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
- Chloride: GS-AP-MW-6D, GS-AP-MW-7, and GS-AP-MW-21,
- Fluoride: GS-AP-MW-13 (upgradient), GS-AP-MW-6S, GS-AP-MW-17, and GS-AP-MW-18
- pH: GS-AP-MW-2 and GS-AP-MW-15
- Sulfate: GS-AP-MW-12, GS-AP-MW-17, and GS-AP-MW-21
- TDS: GS-AP-MW-17 and GS-AP-MW-21

Decreasing:

- Boron: GS-AP-MW-6S
- Fluoride: GS-AP-MW-2
- Sulfate: GS-AP-MW-18

Evaluation of Appendix IV Parameters – February 2021

Data from all wells for Appendix IV parameters were reassessed for outliers during previous analyses. A summary of previously flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management, the Groundwater Protections Standards (GWPS) utilized during the 2019 2nd semi-annual report were used in the confidence interval analysis for this 2021 1st semi-annual report. The GWPS will be updated during the 2021 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

First, background limits were determined using tolerance limits constructed from pooled upgradient well data. The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. When data followed a normal or transformed-normal distribution, parametric tolerance limits were used to calculate background limits for Appendix IV parameters using pooled upgradient well data through October 2019 with a target of 95% confidence and 95% coverage (Figure F).

Nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. 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. An exception is noted in Figure G for lithium, which uses two separate GWPS constructed with and without the inclusion of upgradient well GS-AP-MW-17V, since the background limit is higher when upgradient well GS-AP-MW-17V is used in the tolerance limit calculation. The resulting GWPSs are 0.0809 mg/L and 0.04 mg/L, respectively. Note that none of the parametric tolerance limits resulted in higher limits than the established MCLs or CCR-Rule Specified Limits. In future UTL calculations, nonparametric tolerance limits will be used exclusively, as requested by ADEM, to eliminate variation among upgradient well data.

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through February 2021 for each of the Appendix IV parameters (Figure H and I). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. As mentioned above, well/constituent pairs with 100% non-detects in the most recent 8 samples did not require statistics; therefore, they were deselected prior to construction of confidence intervals. As mentioned above, a list of deselected well/constituent pairs follows this report. The decision logic, with respect to the use of a parametric or nonparametric confidence interval, is similar to that used to construct tolerance limits as discussed above. 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. Note the following reporting limits changed from the previous analysis to this analysis:

- Antimony: <0.003 mg/L to <0.001015 mg/L
- Arsenic: <0.005 mg/L to <0.000203 mg/L
- Beryllium: <0.003 mg/L to <0.001015 mg/L
- Cadmium: <0.001 mg/L to <0.000203 mg/L
- Chromium: <0.01 mg/L to <0.001015 mg/L
- Cobalt: <0.005 mg/L to <0.000203 mg/L
- Lead: <0.005 mg/L to <0.000203 mg/L
- Molybdenum: <0.01 mg/L to <0.000203 mg/L
- Selenium: <0.01 mg/L to <0.001015 mg/L
- Thallium: <0.001 mg/L to <0.000203 mg/L

While this resulted in slight changes to the upper and lower confidence limits in some cases, the confidence interval findings were consistent with those from the Fall 2020 analysis. Both a tabular summary and graphical presentation of the confidence interval results follow this letter. Exceedances were noted for the following well/constituent pairs:

Confidence Intervals (Lithium GWPS = 0.0809)

- Arsenic: GS-AP-MW-6D and GS-AP-MW-7
- Lithium: GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-15, GS-AP-MW-18, and GS-AP-MW-21
- Molybdenum: GS-AP-MW-7

Confidence Intervals (Lithium GWPS = 0.04)

- Arsenic: GS-AP-MW-6D and GS-AP-MW-7
- Lithium: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-18, and GS-AP-MW-21
- Molybdenum: GS-AP-MW-7

As mentioned above, lithium is evaluated using two separate GWPS based on including and excluding upgradient well GS-AP-MW-17V in the confidence interval comparisons (Figures H and I, respectively). Both a tabular summary and graphical presentation of the confidence interval results including a list of statistical exceedances follow this letter.

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,

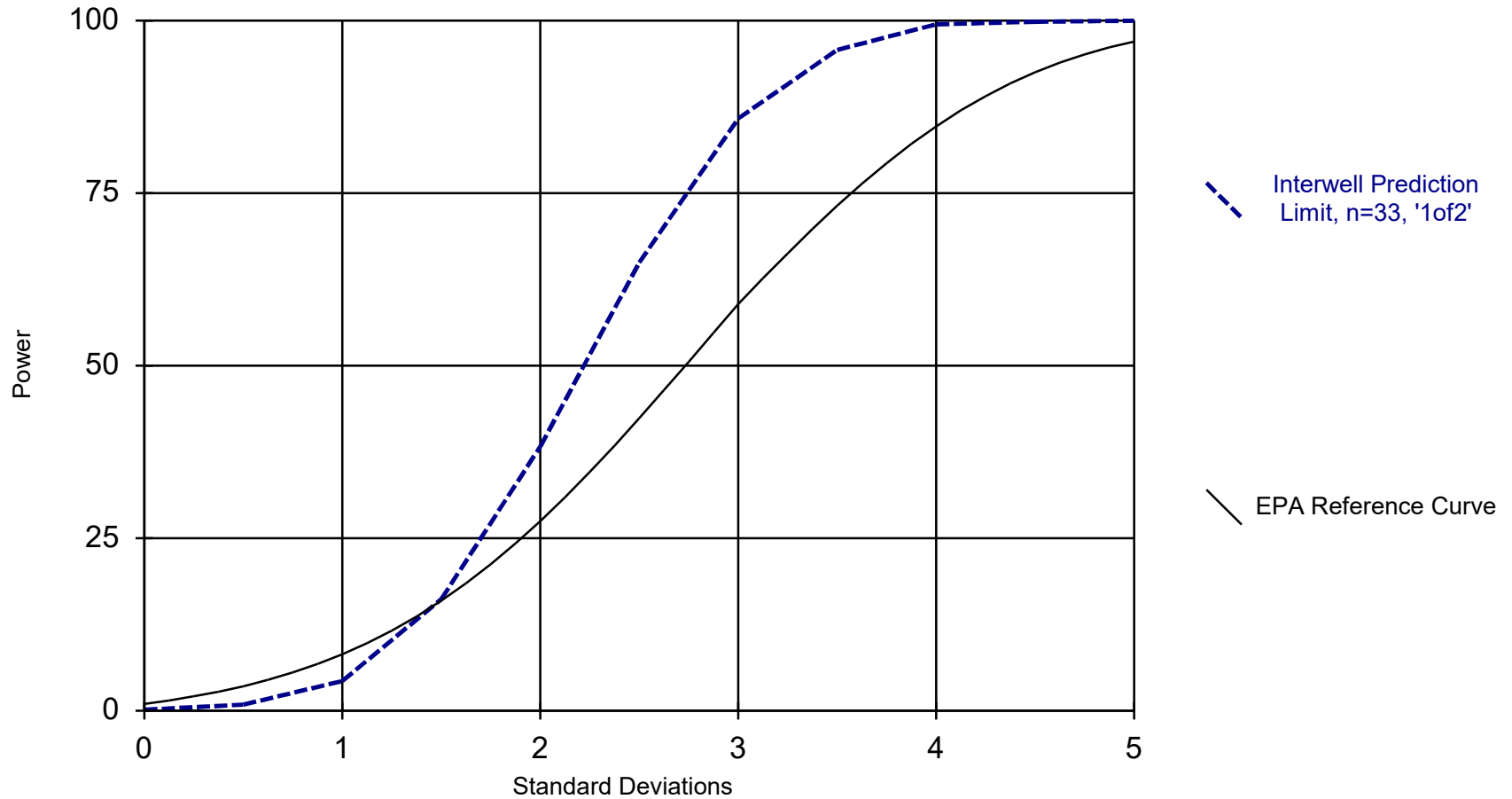


Kristina Rayner
Groundwater Statistician



Andrew Collins
Project Manager

Power Curve



Kappa = 2.134, based on 11 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/22/2021 11:19 AM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/22/2021 10:51 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Antimony (mg/L)

GS-AP-MW-18, GS-AP-MW-2

Arsenic (mg/L)

GS-AP-MW-2

Beryllium (mg/L)

GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-7

Cadmium (mg/L)

GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-6S, GS-AP-MW-7

Chromium (mg/L)

GS-AP-MW-12

Cobalt (mg/L)

GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D

Lead (mg/L)

GS-AP-MW-12, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-6S

Mercury (mg/L)

GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-6S, GS-AP-MW-7

Selenium (mg/L)

GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-7

Thallium (mg/L)

GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-6S, GS-AP-MW-7

Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:37 AM

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-18	0.1015	n/a	2/8/2021	0.546	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-2	0.1015	n/a	2/1/2021	0.13	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	2/3/2021	1.24	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1015	n/a	2/3/2021	0.817	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	2/2/2021	1.6	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	2/8/2021	56.8	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	2/3/2021	56.9	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	2/3/2021	50.7	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.154	n/a	2/9/2021	6.12	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.154	n/a	2/2/2021	10.2	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-18	4.154	n/a	2/8/2021	5.48	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.154	n/a	2/8/2021	6	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.154	n/a	2/1/2021	8.42	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.154	n/a	2/8/2021	39.8	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.154	n/a	2/3/2021	12.2	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	4.154	n/a	2/3/2021	14.9	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.154	n/a	2/2/2021	6.76	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.2689	n/a	2/9/2021	0.591	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.2689	n/a	2/2/2021	0.276	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-18	0.2689	n/a	2/8/2021	0.485	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.2689	n/a	2/8/2021	0.319	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2689	n/a	2/1/2021	0.865	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.27	2/9/2021	11.88	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.27	2/2/2021	8.43	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-19	7.76	5.27	2/8/2021	7.89	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-2	7.76	5.27	2/1/2021	9.31	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.27	2/8/2021	10.69	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	7.76	5.27	2/2/2021	7.77	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	2/1/2021	18.7	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-16D	15.2	n/a	2/10/2021	15.8	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	15.2	n/a	2/2/2021	55.1	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-18	15.2	n/a	2/8/2021	72.6	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	15.2	n/a	2/8/2021	16.2	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	2/1/2021	21.3	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	2/8/2021	232	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	2/3/2021	58.9	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	15.2	n/a	2/3/2021	116	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	2/2/2021	130	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	2/9/2021	616	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	2/2/2021	548	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-18	368	n/a	2/8/2021	384	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	2/8/2021	684	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:37 AM

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	2/1/2021	0.0672J	No	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-15	0.1015	n/a	2/9/2021	0.0521J	No	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-16D	0.1015	n/a	2/10/2021	0.1015ND	No	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-17	0.1015	n/a	2/2/2021	0.0946J	No	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-18	0.1015	n/a	2/8/2021	0.546	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-19	0.1015	n/a	2/8/2021	0.0336J	No	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-2	0.1015	n/a	2/1/2021	0.13	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-21	0.1015	n/a	2/8/2021	0.0991J	No	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	2/3/2021	1.24	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1015	n/a	2/3/2021	0.817	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	2/2/2021	1.6	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-12	48.1	n/a	2/1/2021	45.8	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-15	48.1	n/a	2/9/2021	4.38	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-16D	48.1	n/a	2/10/2021	34.6	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-17	48.1	n/a	2/2/2021	3.3	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-18	48.1	n/a	2/8/2021	45.6	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	2/8/2021	56.8	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-2	48.1	n/a	2/1/2021	0.517	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-21	48.1	n/a	2/8/2021	1.95	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	2/3/2021	56.9	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	2/3/2021	50.7	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-7	48.1	n/a	2/2/2021	12.2	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-12	4.154	n/a	2/1/2021	3.32	No	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.154	n/a	2/9/2021	6.12	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-16D	4.154	n/a	2/10/2021	3.19	No	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.154	n/a	2/2/2021	10.2	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-18	4.154	n/a	2/8/2021	5.48	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.154	n/a	2/8/2021	6	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.154	n/a	2/1/2021	8.42	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.154	n/a	2/8/2021	39.8	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.154	n/a	2/3/2021	12.2	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	4.154	n/a	2/3/2021	14.9	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.154	n/a	2/2/2021	6.76	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-12	0.2689	n/a	2/1/2021	0.126	No	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.2689	n/a	2/9/2021	0.591	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-16D	0.2689	n/a	2/10/2021	0.103	No	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.2689	n/a	2/2/2021	0.276	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-18	0.2689	n/a	2/8/2021	0.485	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.2689	n/a	2/8/2021	0.319	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2689	n/a	2/1/2021	0.865	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-21	0.2689	n/a	2/8/2021	0.203	No	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6D	0.2689	n/a	2/3/2021	0.135	No	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6S	0.2689	n/a	2/3/2021	0.195	No	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-7	0.2689	n/a	2/2/2021	0.124	No	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-12	7.76	5.27	2/1/2021	7.55	No	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.27	2/9/2021	11.88	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-16D	7.76	5.27	2/10/2021	7.73	No	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.27	2/2/2021	8.43	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-18	7.76	5.27	2/8/2021	7.49	No	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-19	7.76	5.27	2/8/2021	7.89	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:37 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (SU)	GS-AP-MW-2	7.76	5.27	2/1/2021	9.31	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.27	2/8/2021	10.69	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6D	7.76	5.27	2/3/2021	7.55	No	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6S	7.76	5.27	2/3/2021	7.05	No	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	7.76	5.27	2/2/2021	7.77	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	2/1/2021	18.7	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	15.2	n/a	2/9/2021	10.6	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-16D	15.2	n/a	2/10/2021	15.8	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	15.2	n/a	2/2/2021	55.1	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-18	15.2	n/a	2/8/2021	72.6	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	15.2	n/a	2/8/2021	16.2	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	2/1/2021	21.3	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	2/8/2021	232	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	2/3/2021	58.9	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	15.2	n/a	2/3/2021	116	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	2/2/2021	130	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-12	368	n/a	2/1/2021	224	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	2/9/2021	616	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-16D	368	n/a	2/10/2021	224	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	2/2/2021	548	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-18	368	n/a	2/8/2021	384	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-19	368	n/a	2/8/2021	324	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	368	n/a	2/1/2021	333	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	2/8/2021	684	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	368	n/a	2/3/2021	301	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6S	368	n/a	2/3/2021	274	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	368	n/a	2/2/2021	349	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2

Trend Test Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:45 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-6D	0.04009	65	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.07908	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04424	63	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.875	76	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.237	78	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.301	90	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6649	107	58	Yes	16	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-17	0.04117	94	68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-18	0.1098	83	63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1845	-113	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.421	72	63	Yes	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.05489	87	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	4.396	62	58	Yes	16	6.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17	16.07	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-18	-125.2	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	58.03	112	58	Yes	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	37.69	93	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	80.56	92	58	Yes	16	0	n/a	n/a	0.01	NP

Trend Test Summary -All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:45 AM

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)	-0.003101	-2	-12	No	5	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-18	-0.2449	-38	-58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	0.009339	24	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6D	0.04009	65	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.07908	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04424	63	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-8 (bg)	0	15	58	No	16	93.75	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)	0.5358	2	12	No	5	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.188	50	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.875	76	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6S	-2.405	-24	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-8 (bg)	-1.178	-46	-58	No	16	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	-0.3789	-22	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	1.254	63	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17V (bg)	0.04505	2	12	No	5	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-18	-5.294	-44	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-0.1209	-26	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	0.5567	27	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.237	78	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.301	90	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6S	-1.101	-37	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6649	107	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1486	54	58	No	16	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-15	-0.02179	-18	-63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17	0.04117	94	68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17V (bg)	0.003109	4	12	No	5	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-18	0.1098	83	63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-19	0.002827	9	63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1845	-113	-68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-8 (bg)	0.00935	49	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-13 (bg)	-0.05825	-34	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.421	72	63	Yes	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	-0.008277	-22	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17V (bg)	-0.1055	-8	-12	No	5	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-19	-0.05657	-38	-63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.05489	87	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-21	0.2746	59	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-7	0.01293	26	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.0436	-60	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	4.396	62	58	Yes	16	6.25	n/a	n/a	0.01	NP
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-16D	0.4795	55	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17	16.07	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17V (bg)	-2.923	-8	-12	No	5	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-18	-125.2	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-19	1.423	20	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	6.466	45	63	No	17	11.76	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	58.03	112	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6D	0.651	8	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6S	-27.74	-50	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-7	-1.812	-21	-58	No	16	0	n/a	n/a	0.01	NP

Trend Test Summary -All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:45 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	GS-AP-MW-8 (bg)	0.2656	25	58	No	16	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	37.44	34	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	37.69	93	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17V (bg)	4.06	2	12	No	5	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-18	-162.5	-49	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	80.56	92	58	Yes	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (bg)	-4.904	-34	-58	No	16	0	n/a	n/a	0.01	NP

Upper Tolerance Limits - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 7/22/2020, 3:32 PM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	27	n/a	n/a	92.59	n/a	n/a	0.2503	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	27	n/a	n/a	77.78	n/a	n/a	0.2503	NP Inter(NDs)
Barium (mg/L)	0.208	n/a	27	n/a	n/a	0	n/a	n/a	0.2503	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	27	n/a	n/a	85.19	n/a	n/a	0.2503	NP Inter(NDs)
Cobalt (mg/L)	0.005	n/a	27	n/a	n/a	81.48	n/a	n/a	0.2503	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.03	n/a	27	0.3444	0.3029	0	None	No	0.05	Inter
Fluoride (mg/L)	0.2499	n/a	29	0.1268	0.05508	0	None	No	0.05	Inter
Lead (mg/L)	0.005	n/a	27	n/a	n/a	96.3	n/a	n/a	0.2503	NP Inter(NDs)
Lithium (mg/L)	0.0809	n/a	27	n/a	n/a	62.96	n/a	n/a	0.2503	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	27	n/a	n/a	92.59	n/a	n/a	0.2503	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)

GORGAS ASH POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.208	2
Beryllium	mg/L	0.003	0.004
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.005	0.006
Combined Radium-226/228	pCi/L	1.03	5
Fluoride	mg/L	0.2499	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.0809	0.0809 / 0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	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 2019.
5. Lithium background constructed by including newly installed upgradient well GS-AP-MW-17V. Lithium GWPS limits constructed with and without GS-AP-MW-17V, respectively.

Confidence Interval Summary Table Set 1 of 2 - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:57 AM

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	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.0809	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.0809	Yes	8	0.1496	0.07549	0	None	x ^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.0809	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.0809	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.0809	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.

Confidence Interval Summary Table Set 1 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:57 AM

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	0.0022	0.000518	0.006	No	8	0.001227	0.0005736	62.5	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-15	0.001015	0.000636	0.006	No	8	0.0009083	0.0001481	50	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-16D	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.001015	0.000828	0.006	No	8	0.0009916	0.00006611	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.001015	0.00055	0.006	No	8	0.0009485	0.0001627	75	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.001015	0.006	No	8	0.001019	0.00001237	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.02429	0.006175	0.01	No	8	0.01523	0.008546	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01775	0.006514	0.01	No	8	0.01213	0.005301	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.005	0.000491	0.01	No	8	0.004436	0.001594	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.005503	0.002317	0.01	No	8	0.00391	0.001503	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-18	0.0922	0.00481	0.01	No	8	0.02897	0.03777	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-19	0.003199	0.001458	0.01	No	8	0.002329	0.0008211	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.005	0.000624	0.01	No	8	0.004453	0.001547	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-6D	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01287	0.006042	0.01	No	8	0.009456	0.003221	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.2028	0.1487	2	No	8	0.1758	0.02555	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2287	0.1001	2	No	8	0.1644	0.06068	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3476	0.3101	2	No	8	0.3289	0.0177	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.1237	0.07384	2	No	8	0.09879	0.02354	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-18	0.109	0.0435	2	No	8	0.07625	0.0309	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.3592	0.31	2	No	8	0.3346	0.02323	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.07224	0.05304	2	No	8	0.06251	0.009924	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1443	0.05542	2	No	8	0.09988	0.04194	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.914	0.378	2	No	8	0.7404	0.2228	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-6S	0.1368	0.07556	2	No	8	0.1062	0.02891	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.1425	0.04624	2	No	8	0.09436	0.0454	0	None	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.001015	0.004	No	8	0.001024	0.00002652	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00138	0.001015	0.004	No	8	0.001061	0.000129	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.001015	0.000794	0.004	No	8	0.0009874	0.00007814	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15	0.01	0.00072	0.1	No	8	0.00884	0.003281	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-16D	0.01	0.00107	0.1	No	8	0.008884	0.003157	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.01	0.00255	0.1	No	8	0.009069	0.002634	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-18	0.01	0.000296	0.1	No	8	0.008787	0.003431	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.01	0.000258	0.1	No	8	0.008782	0.003444	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.01	0.000505	0.1	No	8	0.008813	0.003357	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.01	0.000705	0.1	No	8	0.007862	0.003979	75	None	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-6D	0.01	0.000264	0.1	No	8	0.008783	0.003442	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6S	0.01	0.000268	0.1	No	8	0.008783	0.003441	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.01	0.00435	0.1	No	8	0.00764	0.002722	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-16D	0.005	0.000252	0.006	No	8	0.004406	0.001679	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.005	0.000102	0.006	No	8	0.004388	0.001732	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.005	0.000663	0.006	No	8	0.004458	0.001533	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.005	0.00231	0.006	No	8	0.00407	0.001235	50	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.7899	0.2311	5	No	8	0.5105	0.2636	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9646	0.1343	5	No	8	0.5495	0.3917	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.5696	0.08436	5	No	8	0.327	0.2289	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.375	0.02109	5	No	8	0.6397	0.834	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-18	0.9024	0.2536	5	No	8	0.578	0.306	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.516	0.3851	5	No	8	0.9504	0.5333	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	2.088	0.1248	5	No	8	1.04	1.26	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.184	0.3497	5	No	8	0.753	0.4452	0	None	sqrt(x)	0.01	Param.

Confidence Interval Summary Table Set 1 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:57 AM

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-6D	0.6816	0.2797	5	No	8	0.4779	0.2217	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.148	0.2163	5	No	8	0.6824	0.4397	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.282	0.06134	5	No	8	0.6715	0.5757	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.2427	0.1208	4	No	8	0.1818	0.05752	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.6982	0.4821	4	No	8	0.5901	0.102	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1444	0.1037	4	No	8	0.1238	0.02112	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3533	0.2407	4	No	8	0.297	0.05312	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-18	0.6213	0.4379	4	No	8	0.5296	0.08652	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3757	0.2948	4	No	8	0.3353	0.03821	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	1.013	0.7989	4	No	8	0.9058	0.1008	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2559	0.2056	4	No	8	0.2308	0.02369	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.16	0.13	4	No	8	0.1385	0.01219	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-6S	0.2458	0.1025	4	No	8	0.1741	0.06758	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1221	0.09386	4	No	8	0.108	0.01334	0	None	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.005	0.0000874	0.015	No	8	0.004386	0.001737	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.005	0.000873	0.015	No	8	0.004484	0.001459	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.005	0.000175	0.015	No	8	0.004397	0.001706	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.005	0.00207	0.015	No	8	0.003914	0.001268	50	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-12	0.058	0.0249	0.0809	No	8	0.0347	0.01214	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.0809	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03641	0.03309	0.0809	No	8	0.03475	0.001565	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06377	0.05608	0.0809	No	8	0.05993	0.00363	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.0809	Yes	8	0.1496	0.07549	0	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-19	0.04478	0.03797	0.0809	No	8	0.04138	0.003214	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04781	0.04027	0.0809	No	8	0.04404	0.003557	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.0809	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.0809	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6S	0.06038	0.001682	0.0809	No	8	0.03316	0.0246	25	Cohen's	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.0809	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.01	0.00444	0.1	No	8	0.008516	0.002253	62.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-15	0.07032	0.03416	0.1	No	8	0.05224	0.01706	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.01	0.00014	0.1	No	8	0.008767	0.003486	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.008985	0.003965	0.1	No	8	0.006475	0.002368	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-18	0.048	0.02069	0.1	No	8	0.034	0.0155	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.007729	0.004464	0.1	No	8	0.006096	0.00154	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.007527	0.002133	0.1	No	8	0.00483	0.002544	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.0952	0.04432	0.1	No	8	0.06976	0.024	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.00959	0.00537	0.1	No	8	0.007471	0.001847	0	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-6S	0.02891	0.002645	0.1	No	8	0.015	0.0143	12.5	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6S	0.01	0.000794	0.05	No	8	0.008849	0.003255	87.5	None	No	0.004	NP (NDs)

Confidence Interval Summary Table Set 2 of 2 - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:59 AM

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	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.04	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06377	0.05608	0.04	Yes	8	0.05993	0.00363	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.04	Yes	8	0.1496	0.07549	0	None	x ^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04781	0.04027	0.04	Yes	8	0.04404	0.003557	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.04	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.04	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.04	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.

Confidence Interval Summary Table Set 2 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:59 AM

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	0.0022	0.000518	0.006	No	8	0.001227	0.0005736	62.5	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-15	0.001015	0.000636	0.006	No	8	0.0009083	0.0001481	50	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-16D	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.001015	0.000828	0.006	No	8	0.0009916	0.00006611	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.001015	0.00055	0.006	No	8	0.0009485	0.0001627	75	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.001015	0.006	No	8	0.001019	0.00001237	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.02429	0.006175	0.01	No	8	0.01523	0.008546	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01775	0.006514	0.01	No	8	0.01213	0.005301	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.005	0.000491	0.01	No	8	0.004436	0.001594	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.005503	0.002317	0.01	No	8	0.00391	0.001503	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-18	0.0922	0.00481	0.01	No	8	0.02897	0.03777	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-19	0.003199	0.001458	0.01	No	8	0.002329	0.0008211	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.005	0.000624	0.01	No	8	0.004453	0.001547	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-6D	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01287	0.006042	0.01	No	8	0.009456	0.003221	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.2028	0.1487	2	No	8	0.1758	0.02555	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2287	0.1001	2	No	8	0.1644	0.06068	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3476	0.3101	2	No	8	0.3289	0.0177	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.1237	0.07384	2	No	8	0.09879	0.02354	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-18	0.109	0.0435	2	No	8	0.07625	0.0309	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.3592	0.31	2	No	8	0.3346	0.02323	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.07224	0.05304	2	No	8	0.06251	0.009924	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1443	0.05542	2	No	8	0.09988	0.04194	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.914	0.378	2	No	8	0.7404	0.2228	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-6S	0.1368	0.07556	2	No	8	0.1062	0.02891	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.1425	0.04624	2	No	8	0.09436	0.0454	0	None	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.001015	0.004	No	8	0.001024	0.00002652	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00138	0.001015	0.004	No	8	0.001061	0.000129	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.001015	0.000794	0.004	No	8	0.0009874	0.00007814	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15	0.01	0.00072	0.1	No	8	0.00884	0.003281	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-16D	0.01	0.00107	0.1	No	8	0.008884	0.003157	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.01	0.00255	0.1	No	8	0.009069	0.002634	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-18	0.01	0.000296	0.1	No	8	0.008787	0.003431	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.01	0.000258	0.1	No	8	0.008782	0.003444	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.01	0.000505	0.1	No	8	0.008813	0.003357	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.01	0.000705	0.1	No	8	0.007862	0.003979	75	None	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-6D	0.01	0.000264	0.1	No	8	0.008783	0.003442	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6S	0.01	0.000268	0.1	No	8	0.008783	0.003441	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.01	0.00435	0.1	No	8	0.00764	0.002722	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-16D	0.005	0.000252	0.006	No	8	0.004406	0.001679	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.005	0.000102	0.006	No	8	0.004388	0.001732	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.005	0.000663	0.006	No	8	0.004458	0.001533	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.005	0.00231	0.006	No	8	0.00407	0.001235	50	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.7899	0.2311	5	No	8	0.5105	0.2636	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9646	0.1343	5	No	8	0.5495	0.3917	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.5696	0.08436	5	No	8	0.327	0.2289	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.375	0.02109	5	No	8	0.6397	0.834	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-18	0.9024	0.2536	5	No	8	0.578	0.306	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.516	0.3851	5	No	8	0.9504	0.5333	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	2.088	0.1248	5	No	8	1.04	1.26	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.184	0.3497	5	No	8	0.753	0.4452	0	None	sqrt(x)	0.01	Param.

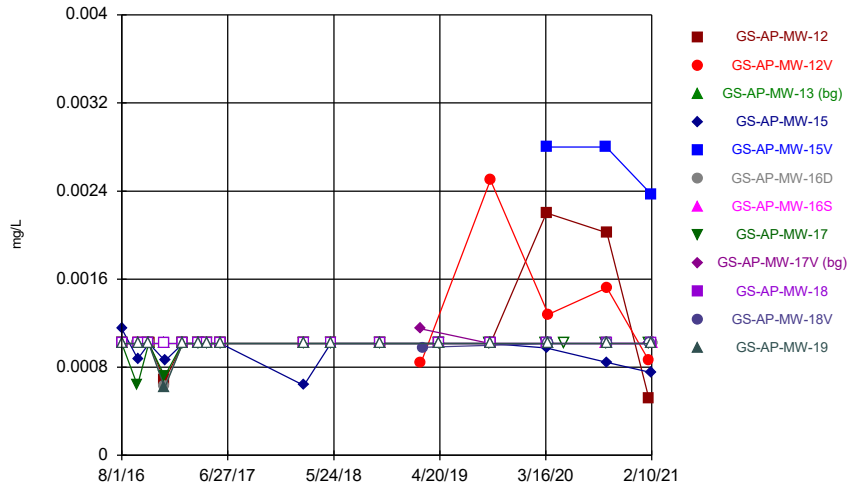
Confidence Interval Summary Table Set 2 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:59 AM

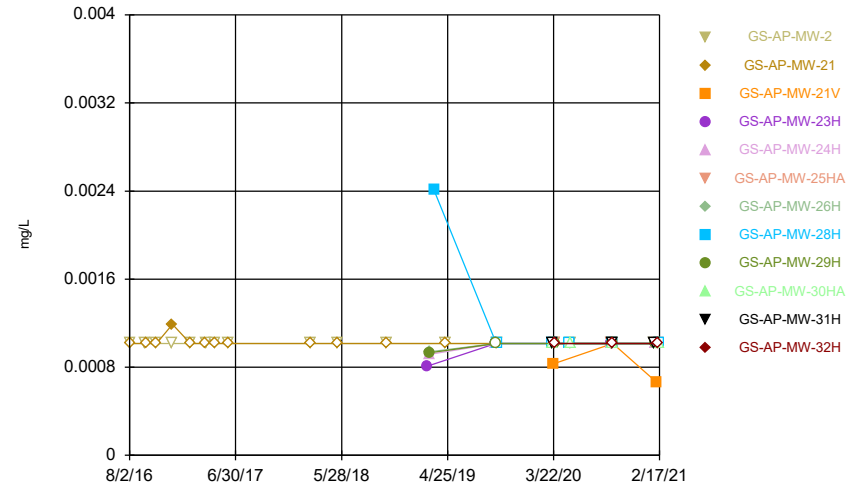
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6D	0.6816	0.2797	5	No	8	0.4779	0.2217	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.148	0.2163	5	No	8	0.6824	0.4397	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.282	0.06134	5	No	8	0.6715	0.5757	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.2427	0.1208	4	No	8	0.1818	0.05752	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.6982	0.4821	4	No	8	0.5901	0.102	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1444	0.1037	4	No	8	0.1238	0.02112	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3533	0.2407	4	No	8	0.297	0.05312	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-18	0.6213	0.4379	4	No	8	0.5296	0.08652	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3757	0.2948	4	No	8	0.3353	0.03821	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	1.013	0.7989	4	No	8	0.9058	0.1008	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2559	0.2056	4	No	8	0.2308	0.02369	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.16	0.13	4	No	8	0.1385	0.01219	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-6S	0.2458	0.1025	4	No	8	0.1741	0.06758	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1221	0.09386	4	No	8	0.108	0.01334	0	None	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.005	0.0000874	0.015	No	8	0.004386	0.001737	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.005	0.000873	0.015	No	8	0.004484	0.001459	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.005	0.000175	0.015	No	8	0.004397	0.001706	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.005	0.00207	0.015	No	8	0.003914	0.001268	50	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-12	0.058	0.0249	0.04	No	8	0.0347	0.01214	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.04	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03641	0.03309	0.04	No	8	0.03475	0.001565	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06377	0.05608	0.04	Yes	8	0.05993	0.00363	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.04	Yes	8	0.1496	0.07549	0	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-19	0.04478	0.03797	0.04	No	8	0.04138	0.003214	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04781	0.04027	0.04	Yes	8	0.04404	0.003557	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.04	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.04	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6S	0.06038	0.001682	0.04	No	8	0.03316	0.0246	25	Cohen's	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.04	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.01	0.00444	0.1	No	8	0.008516	0.002253	62.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-15	0.07032	0.03416	0.1	No	8	0.05224	0.01706	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.01	0.00014	0.1	No	8	0.008767	0.003486	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.008985	0.003965	0.1	No	8	0.006475	0.002368	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-18	0.048	0.02069	0.1	No	8	0.034	0.0155	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.007729	0.004464	0.1	No	8	0.006096	0.00154	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.007527	0.002133	0.1	No	8	0.00483	0.002544	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.0952	0.04432	0.1	No	8	0.06976	0.024	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.00959	0.00537	0.1	No	8	0.007471	0.001847	0	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-6S	0.02891	0.002645	0.1	No	8	0.015	0.0143	12.5	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6S	0.01	0.000794	0.05	No	8	0.008849	0.003255	87.5	None	No	0.004	NP (NDs)

FIGURE A.

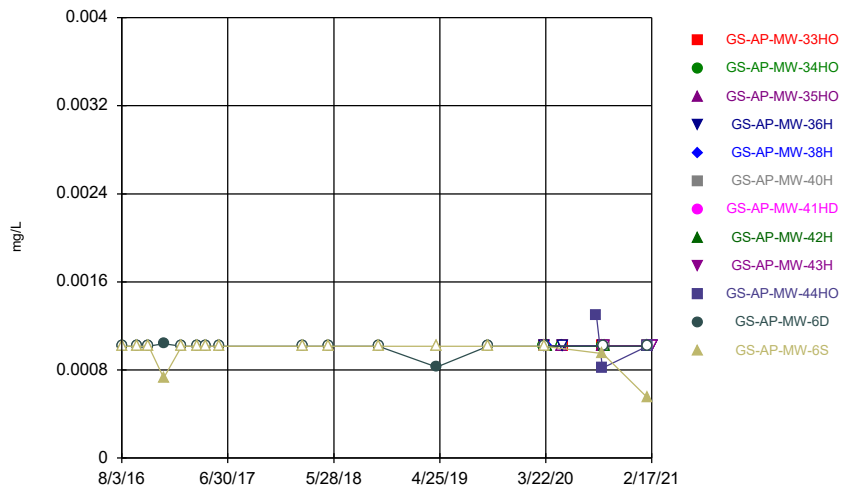
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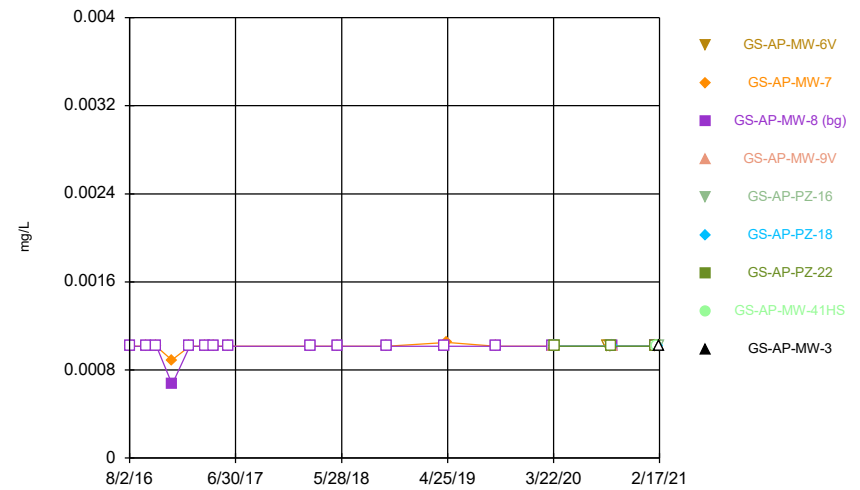
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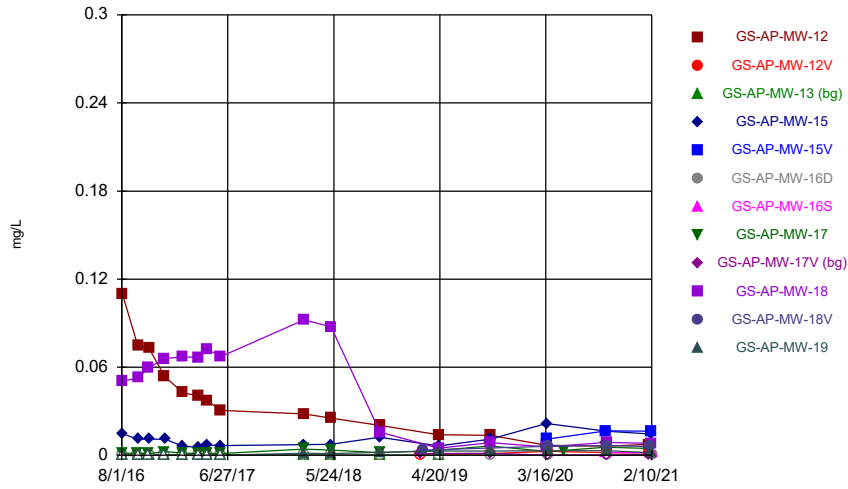
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Time Series

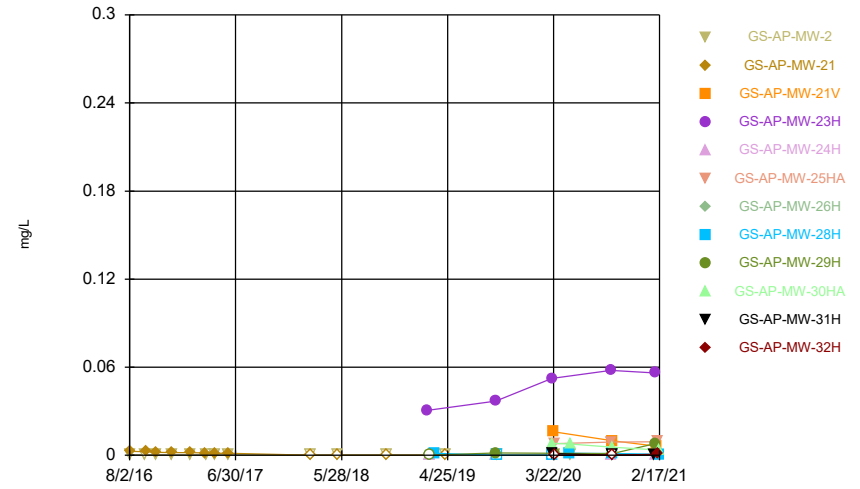


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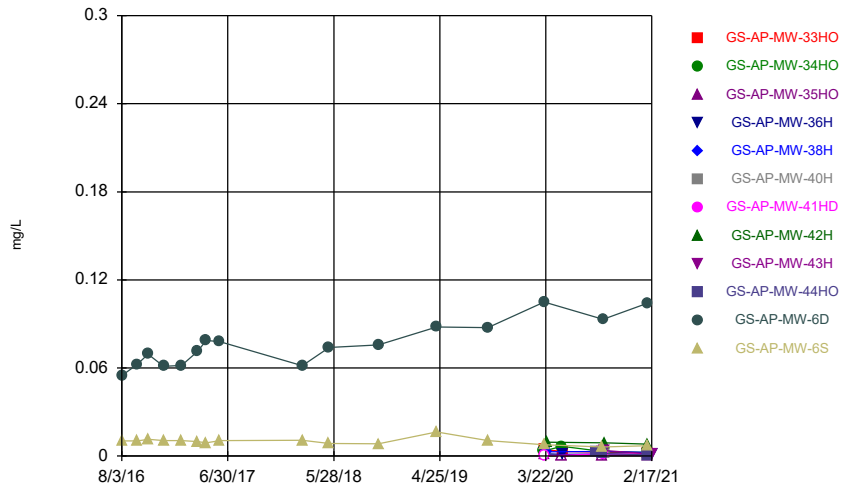
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Time Series



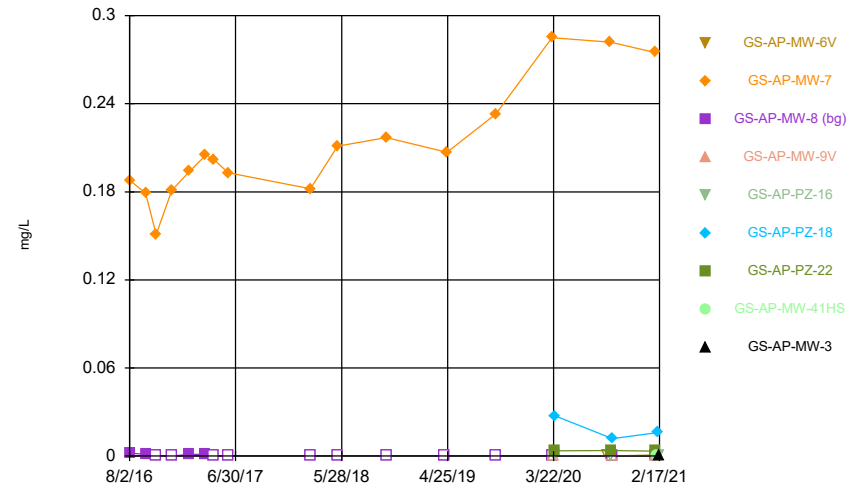
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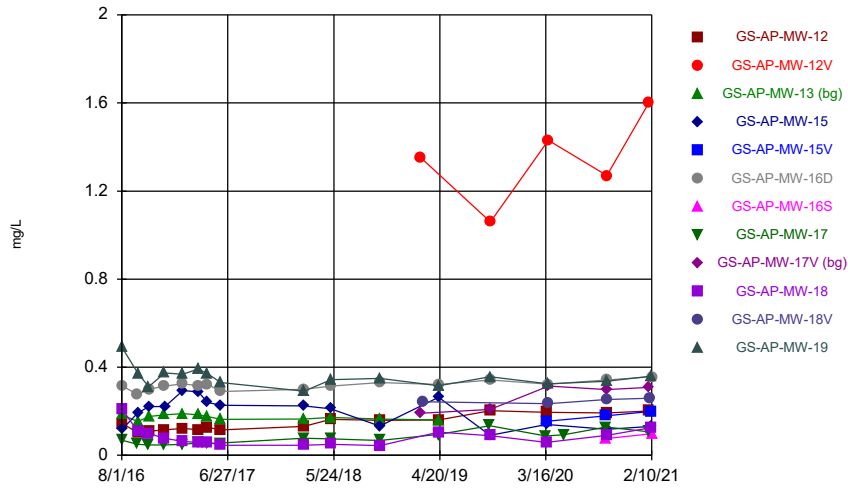
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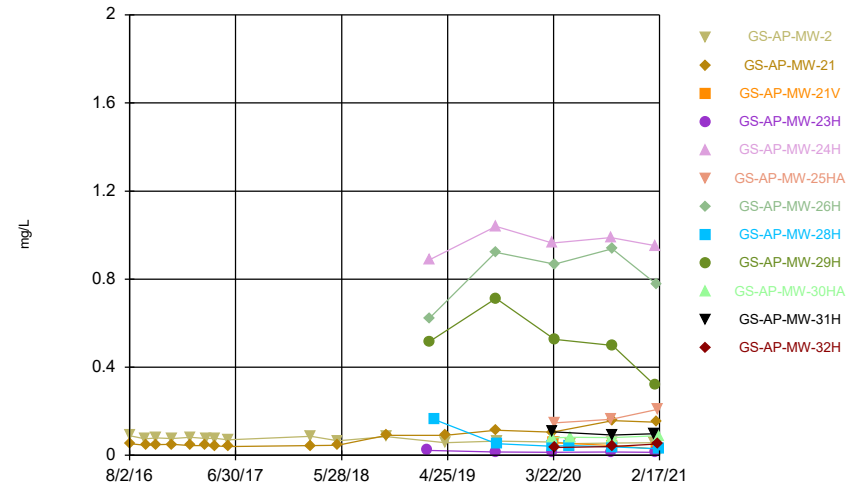
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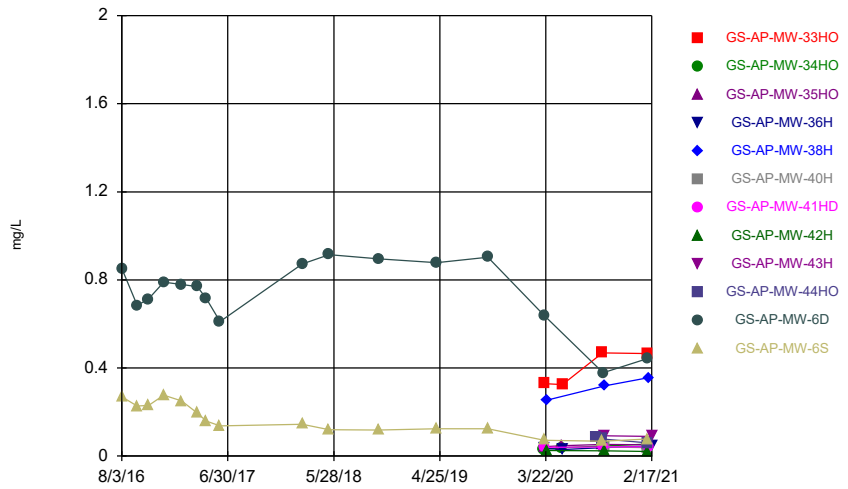
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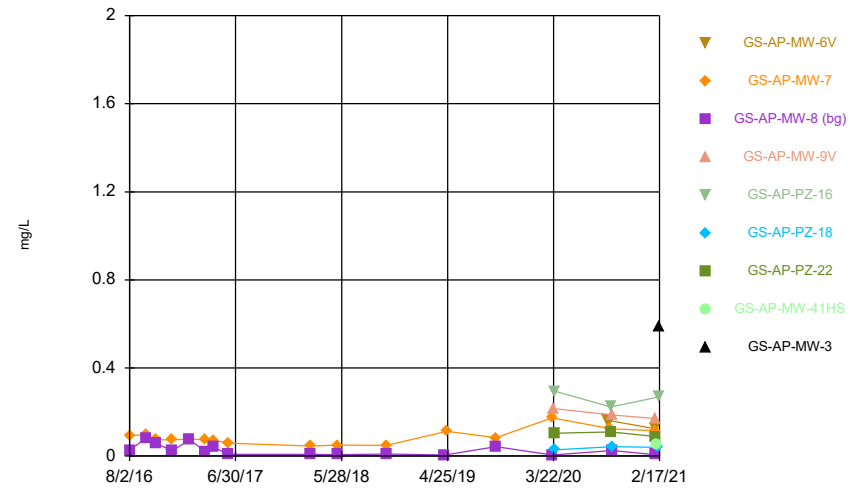
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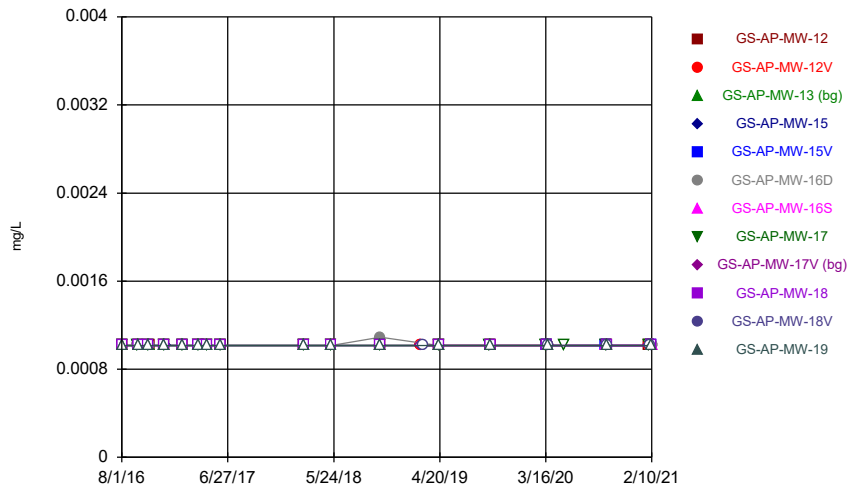
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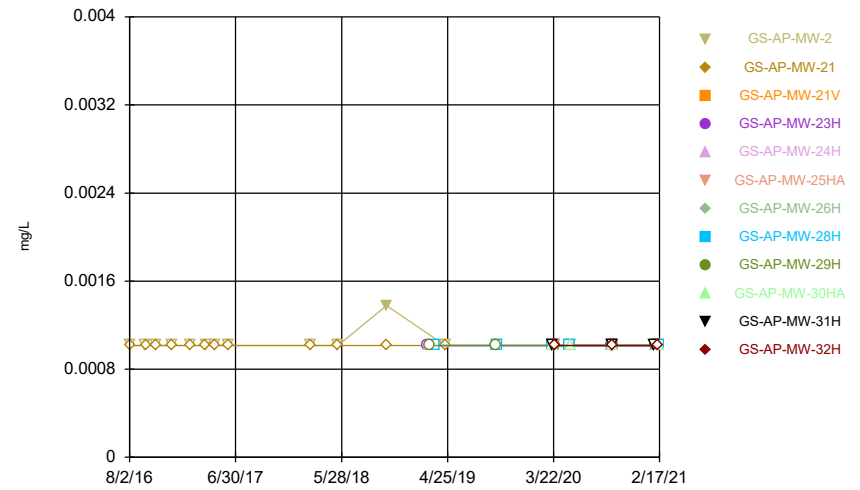
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Time Series



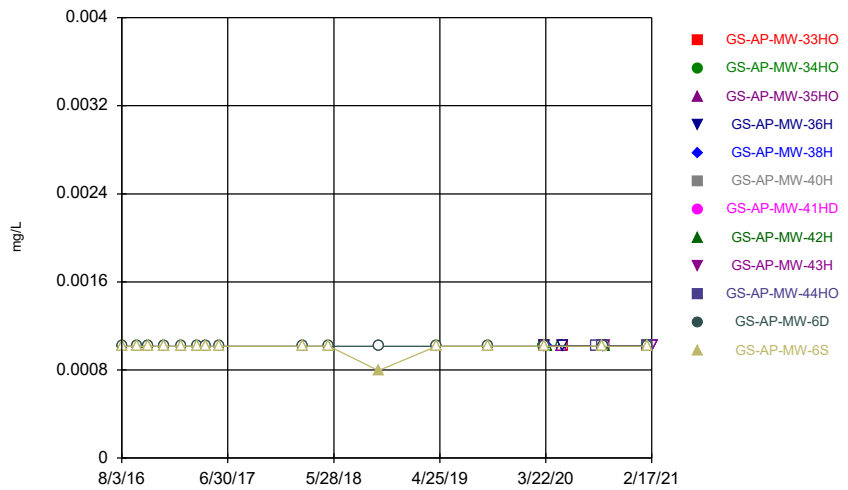
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Time Series



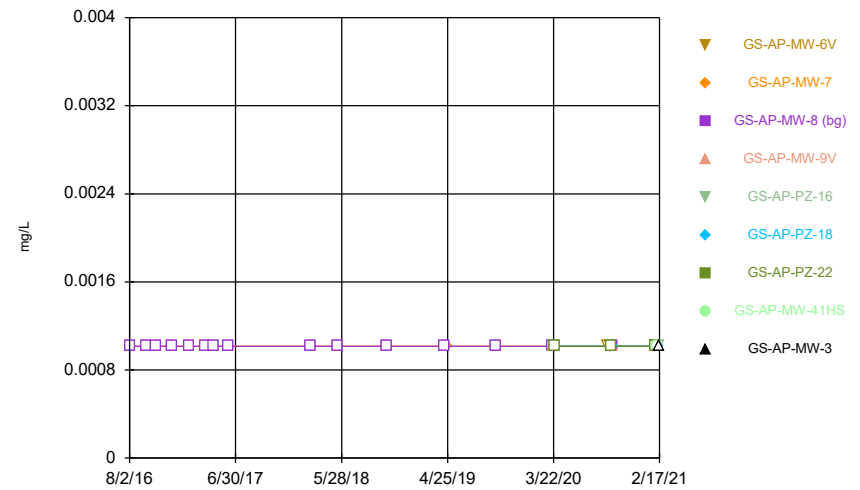
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Time Series



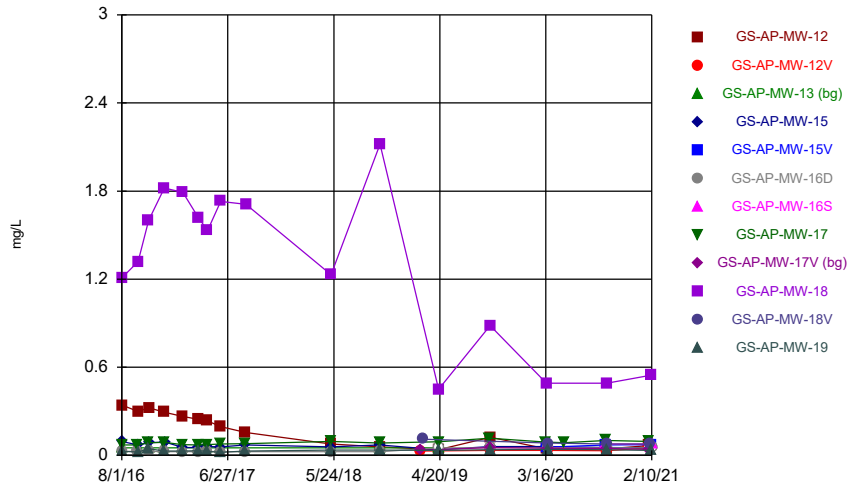
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Time Series



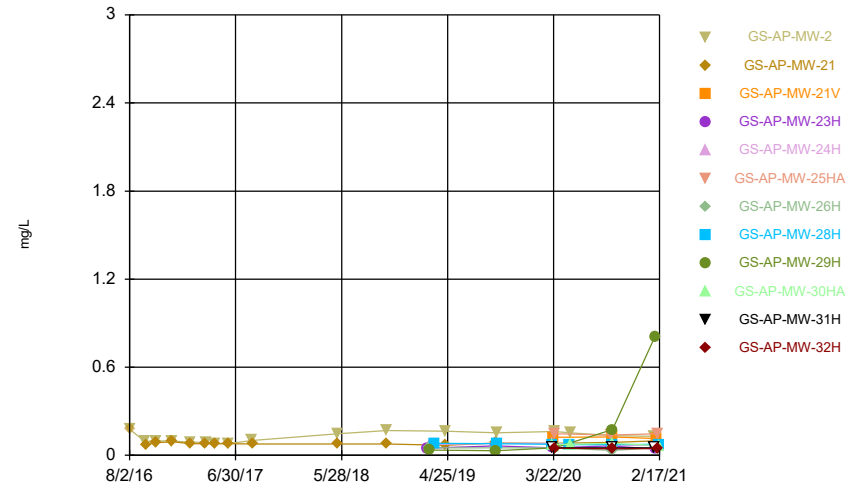
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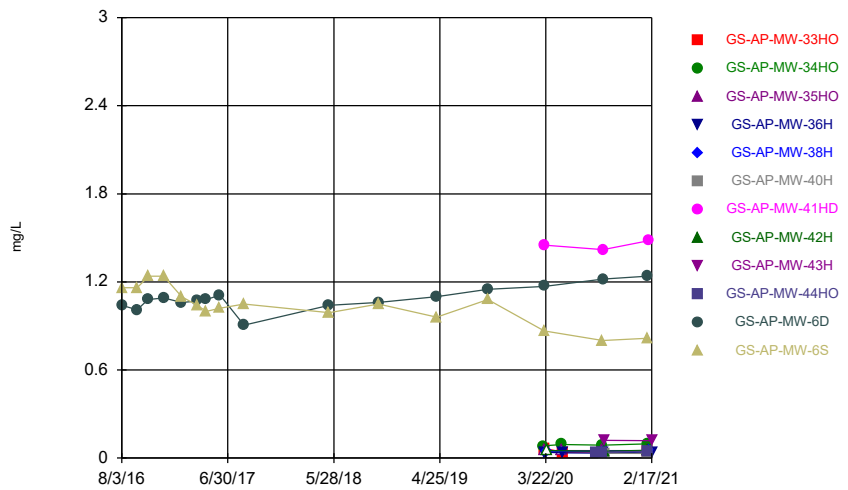
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Time Series



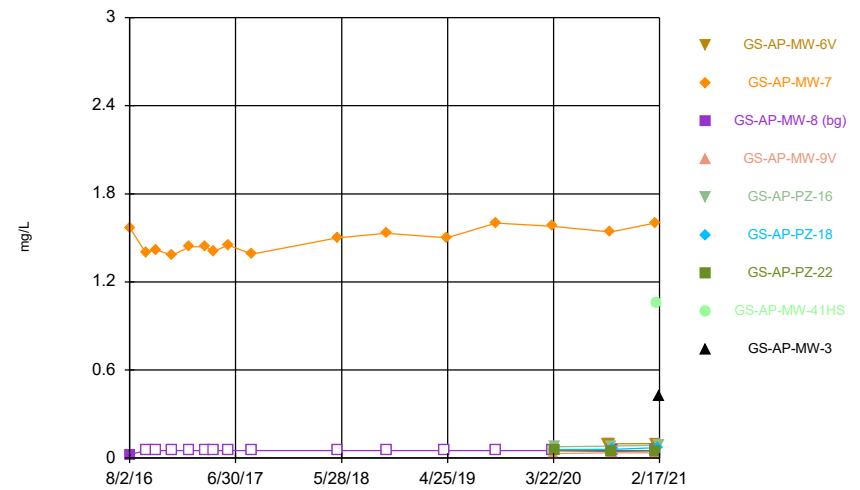
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Time Series



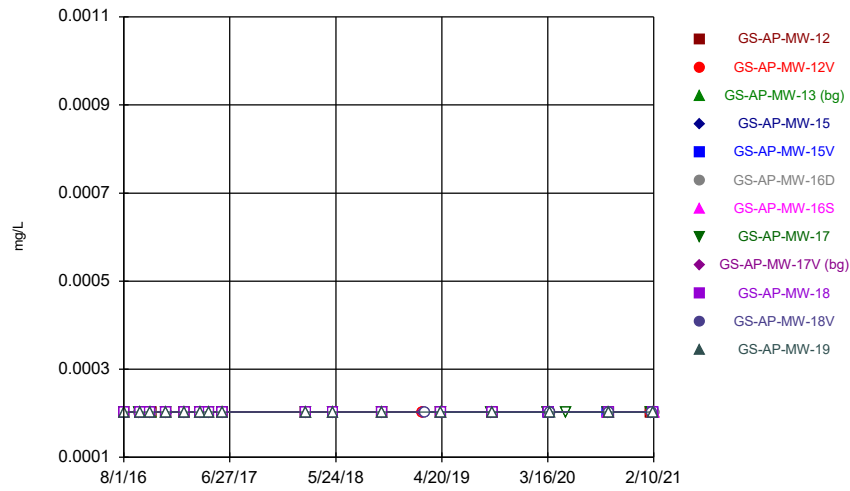
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Time Series



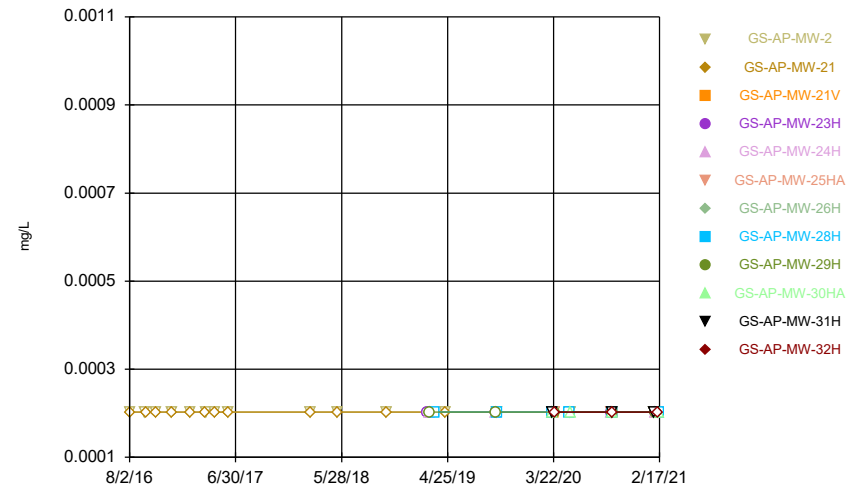
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Time Series



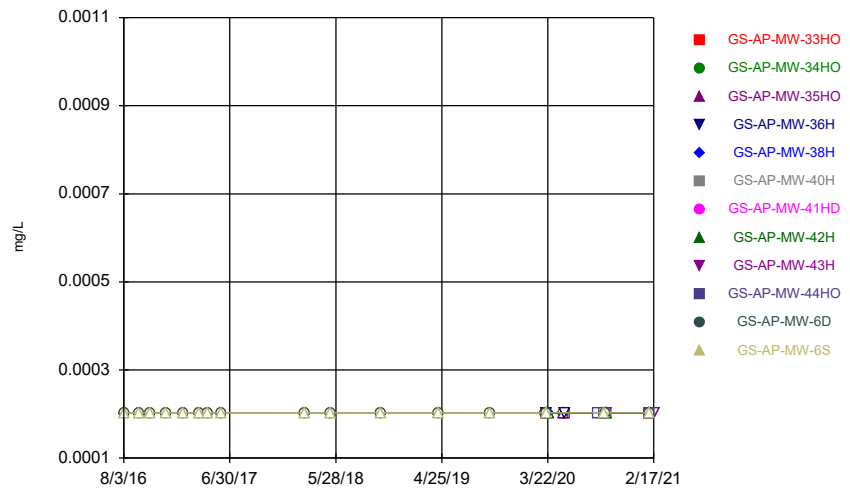
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Time Series



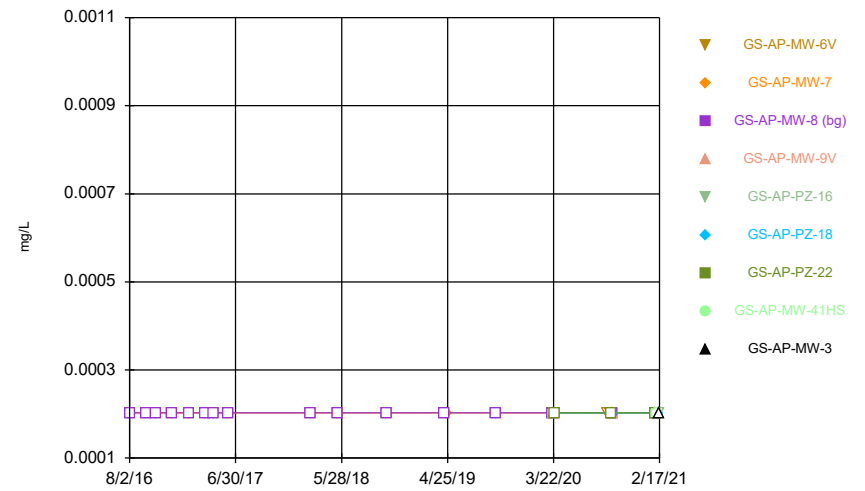
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Time Series



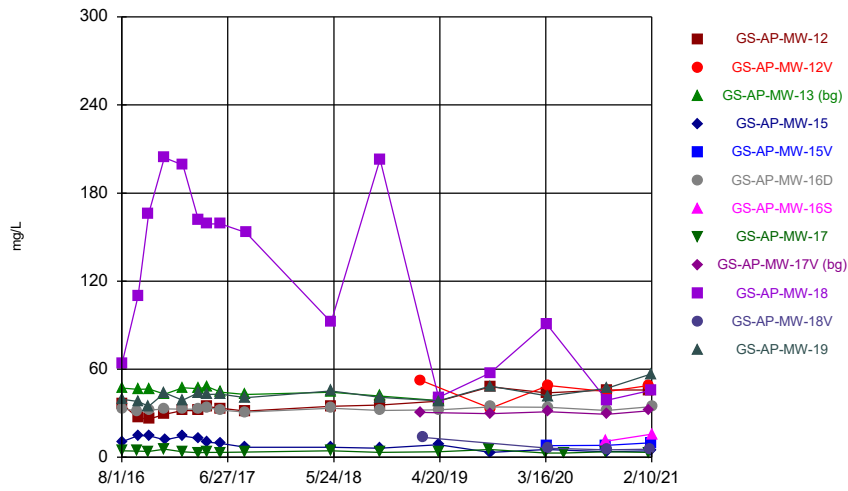
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Time Series



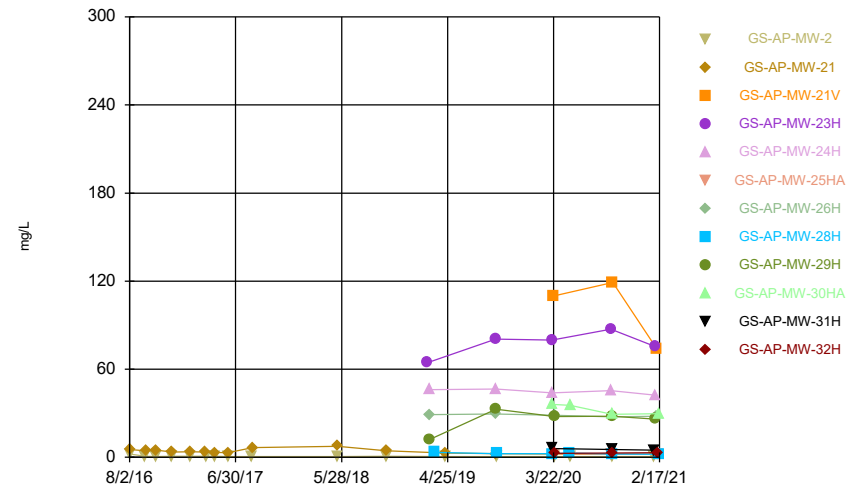
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Time Series



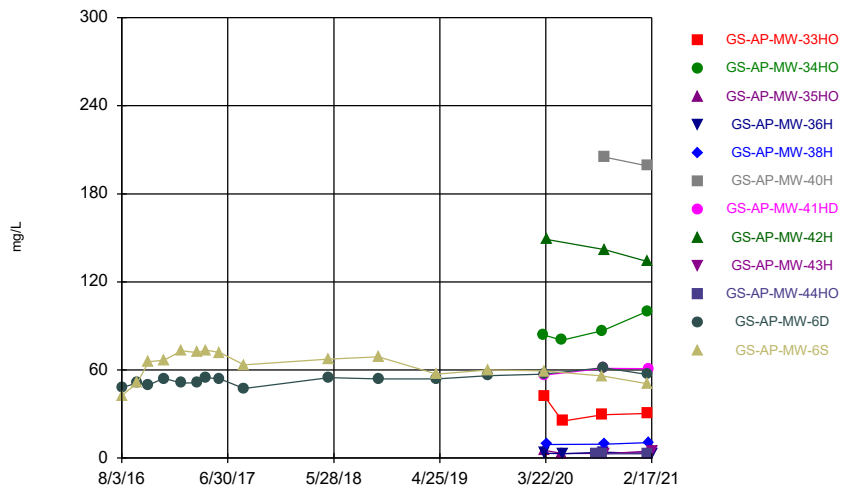
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Time Series



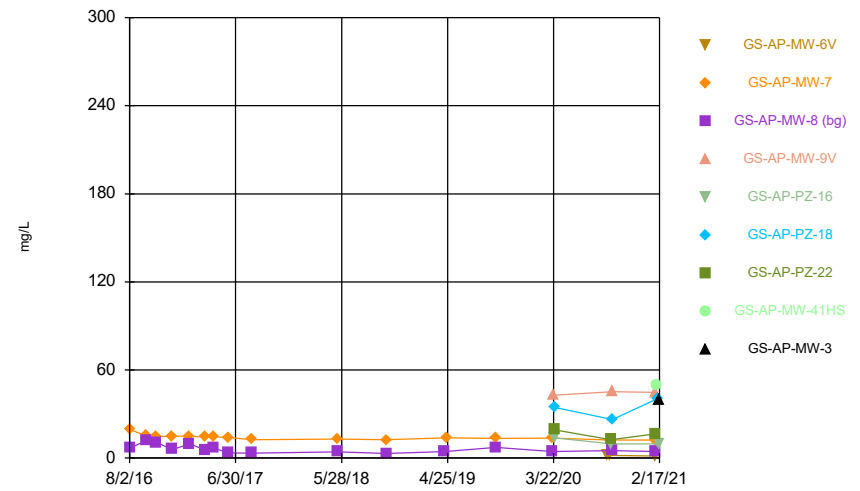
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Time Series



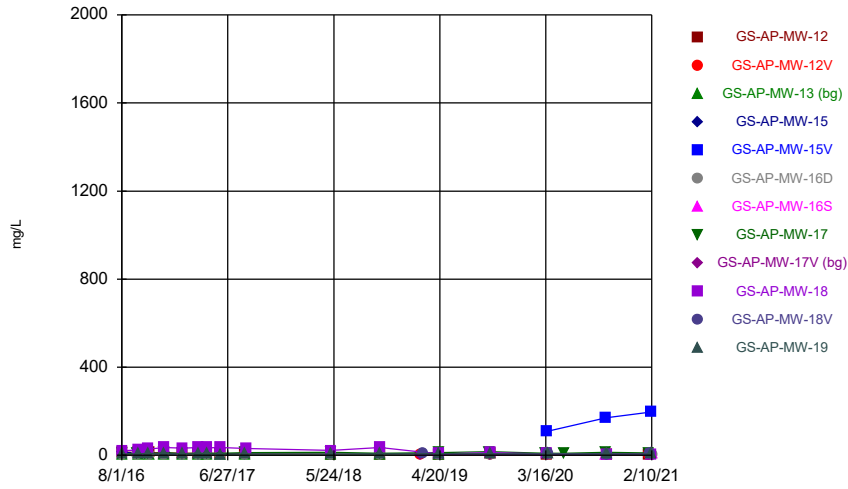
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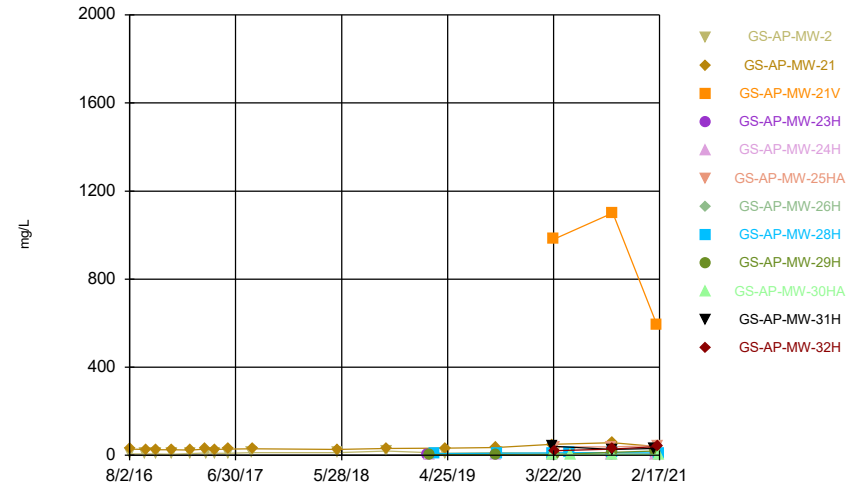
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Time Series



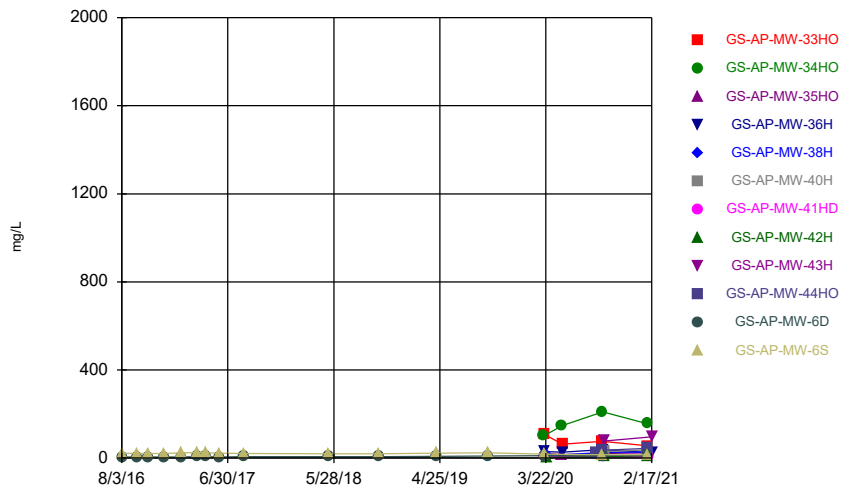
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Time Series



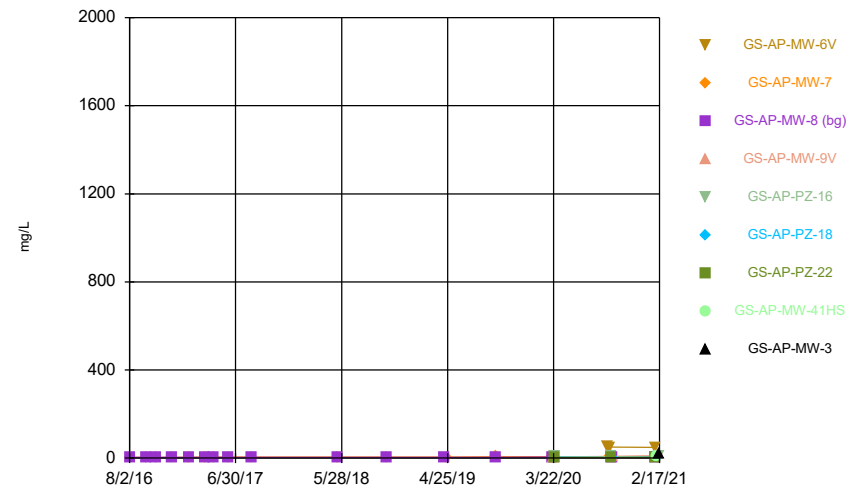
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Time Series



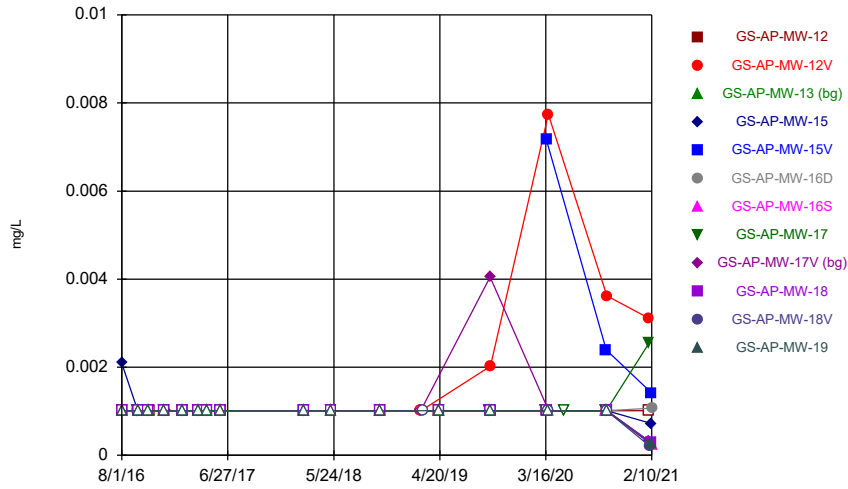
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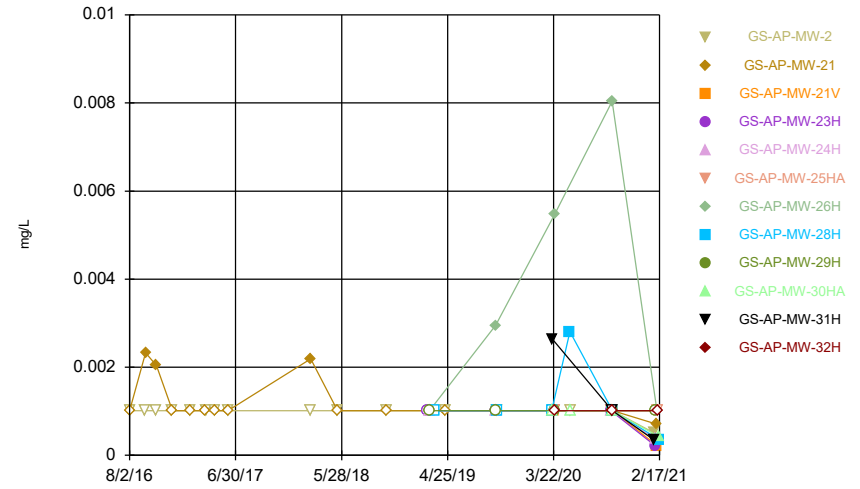


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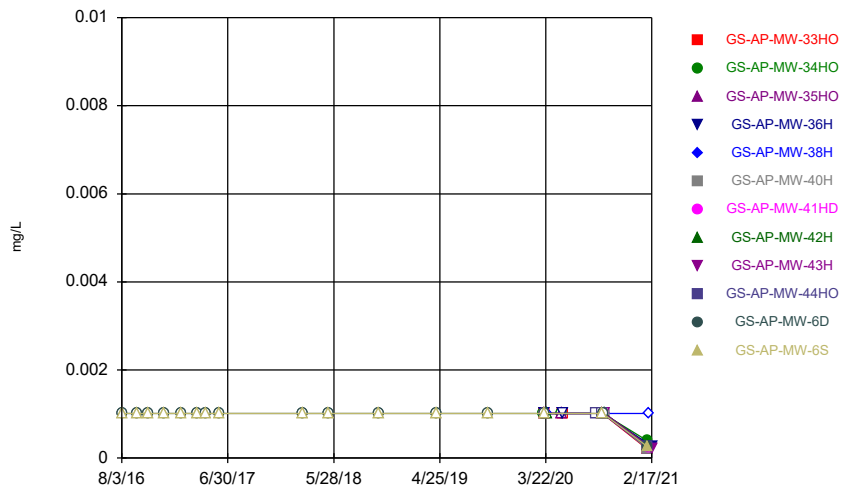
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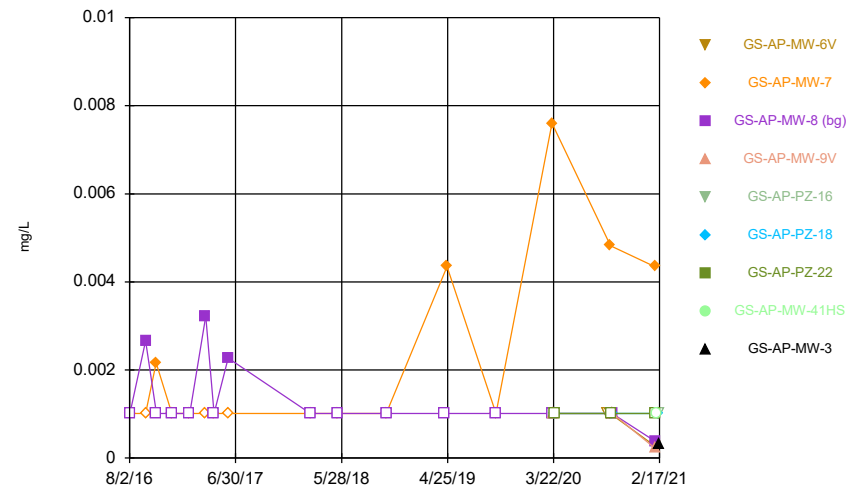
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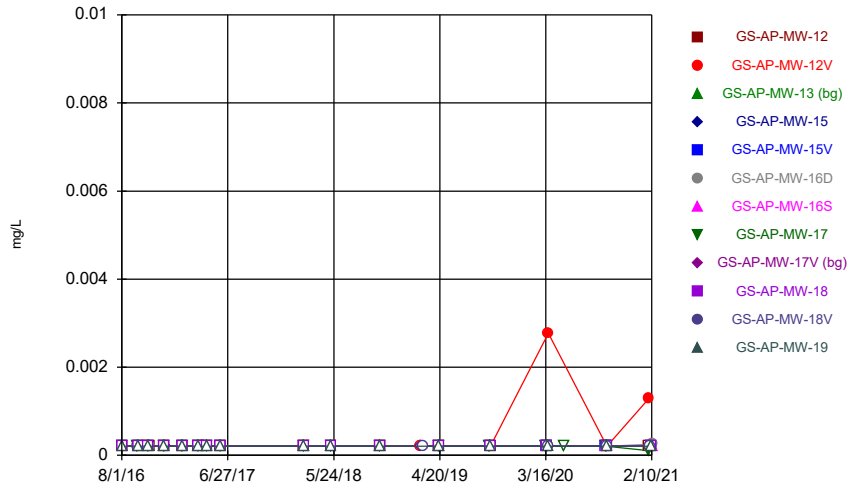
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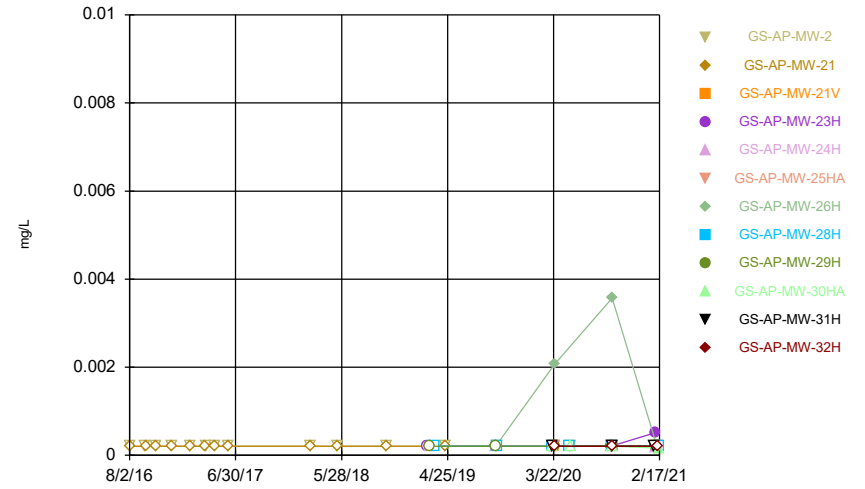


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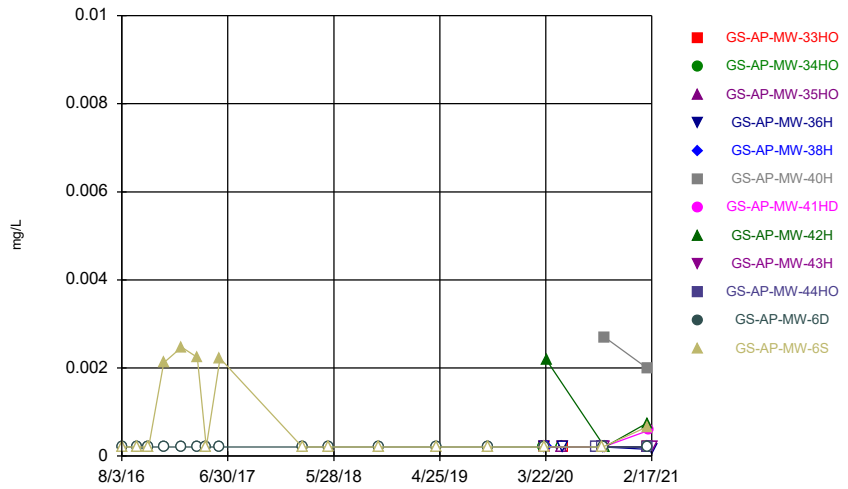
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Time Series



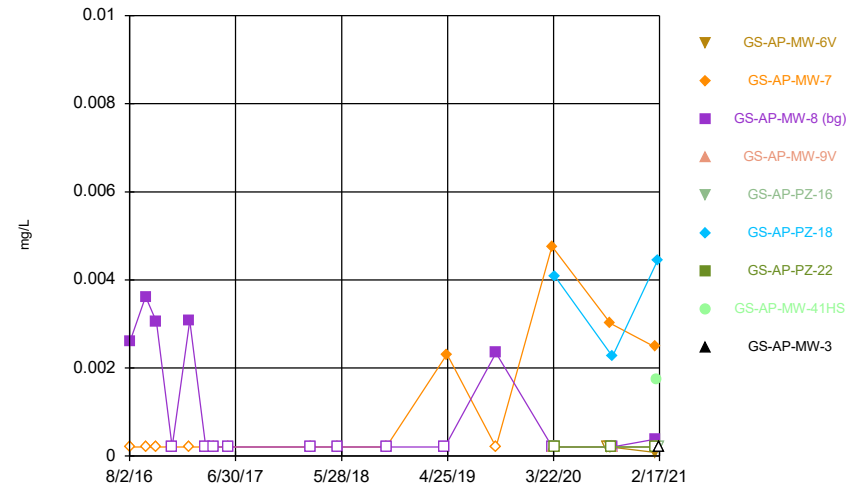
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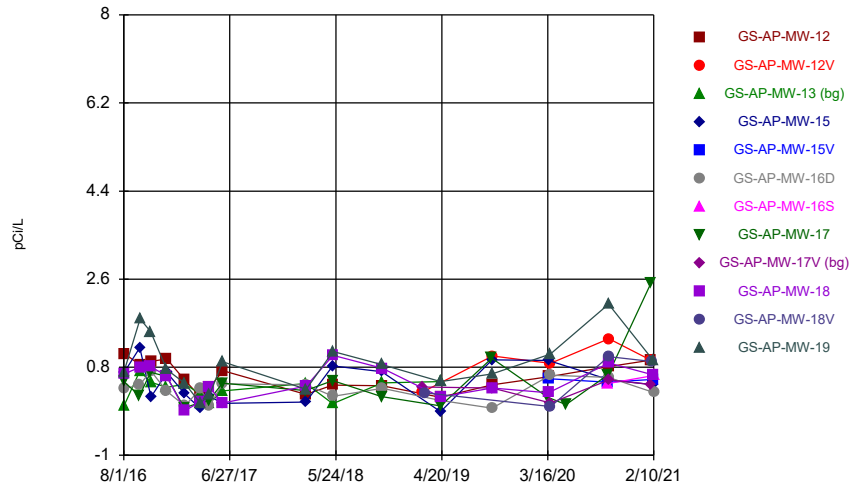
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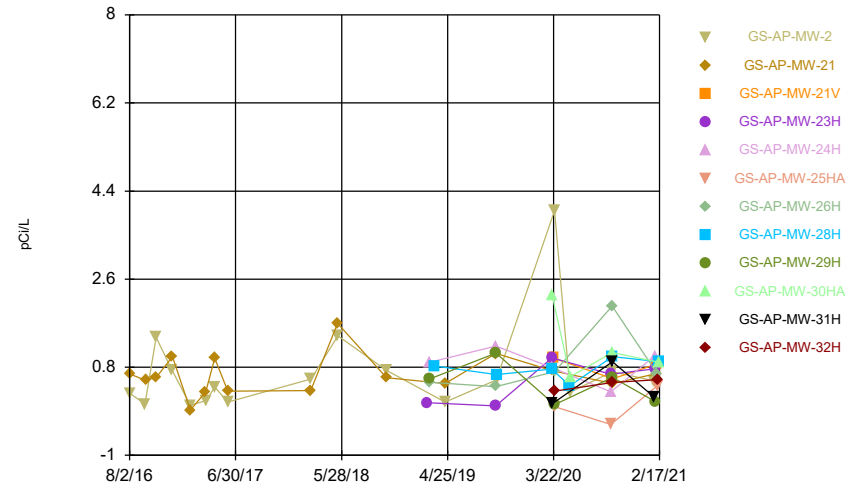
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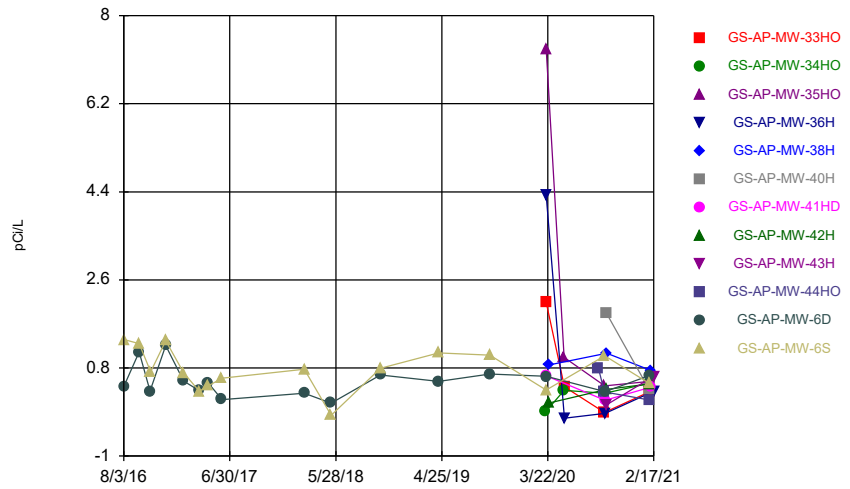
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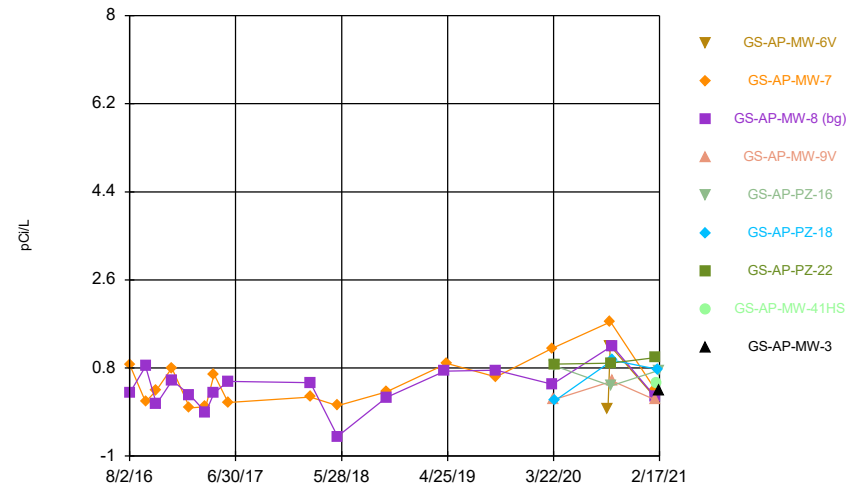
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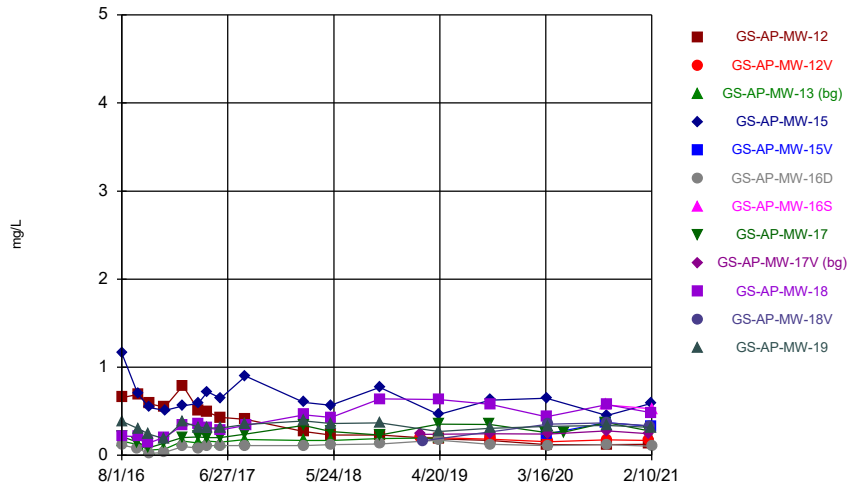
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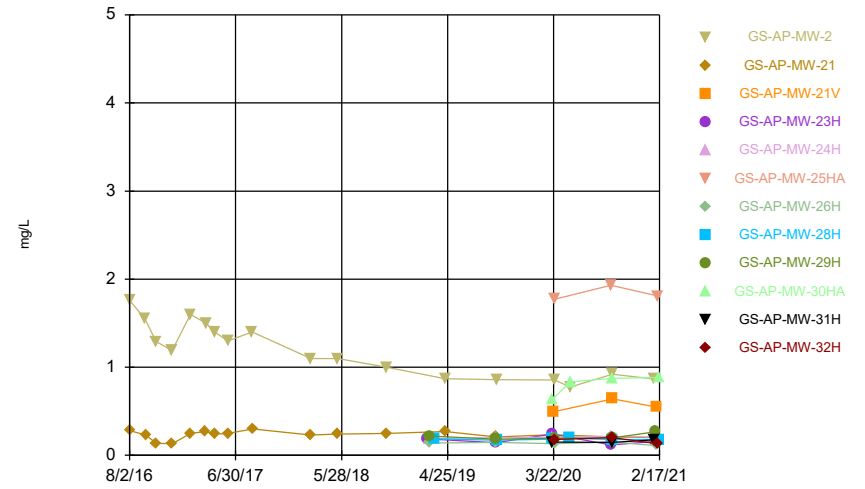
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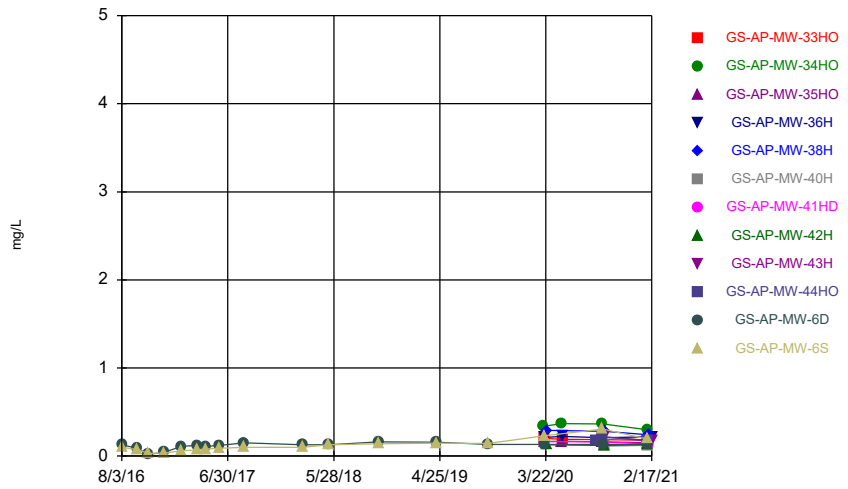
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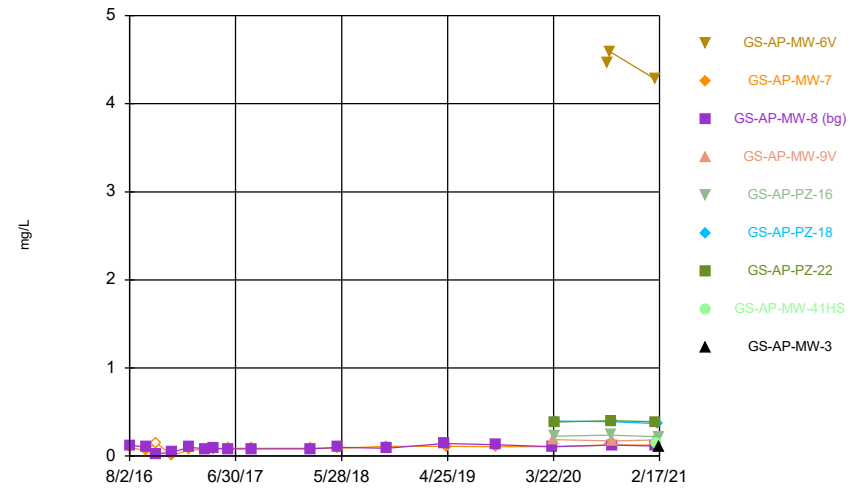
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



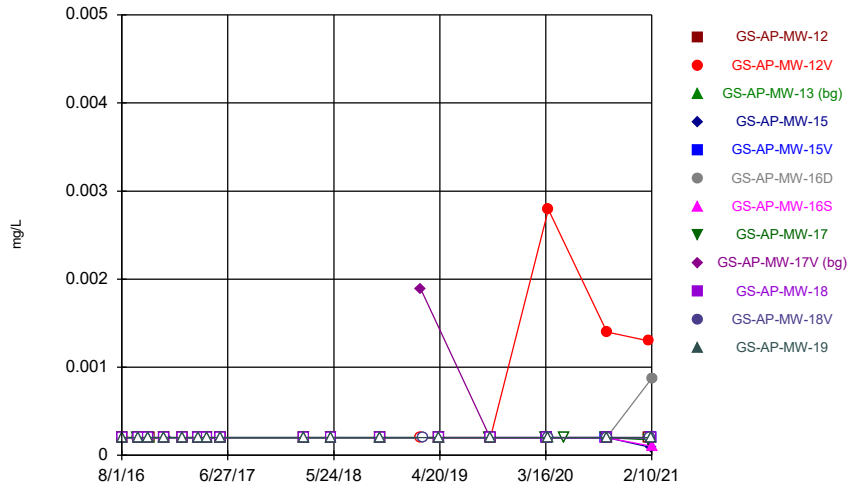
Constituent: Fluoride Analysis Run 5/24/2021 1:23 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



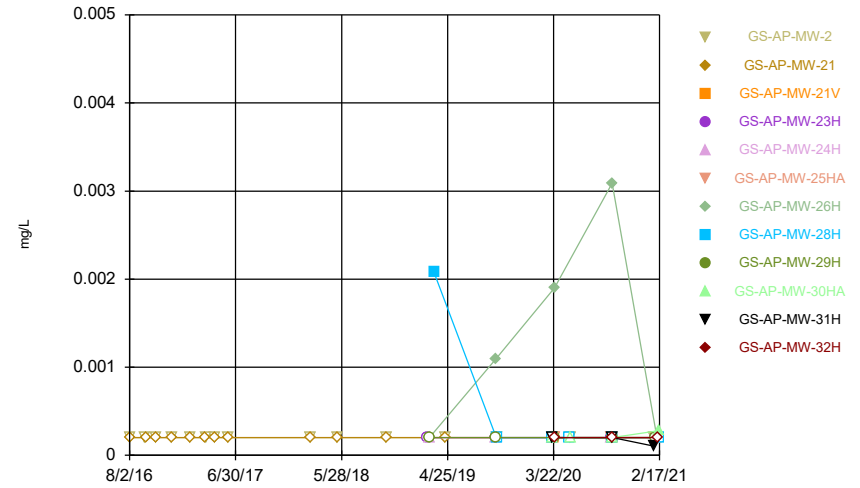
Constituent: Fluoride Analysis Run 5/24/2021 1:23 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



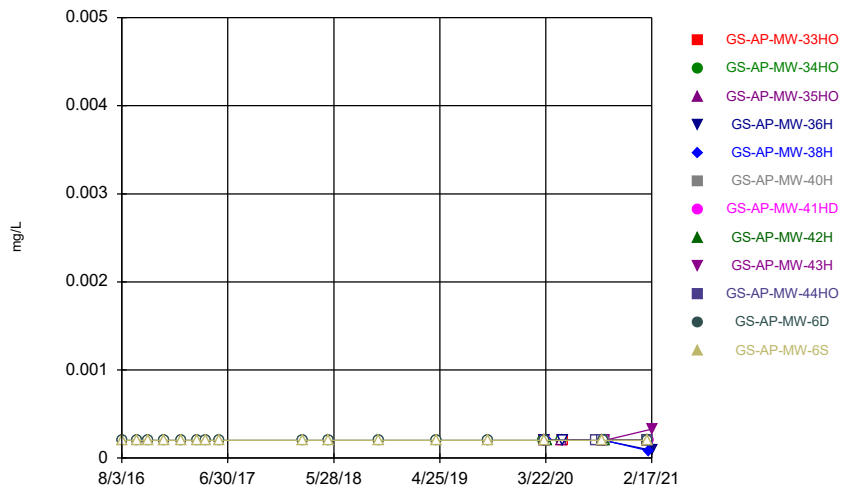
Constituent: Lead Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



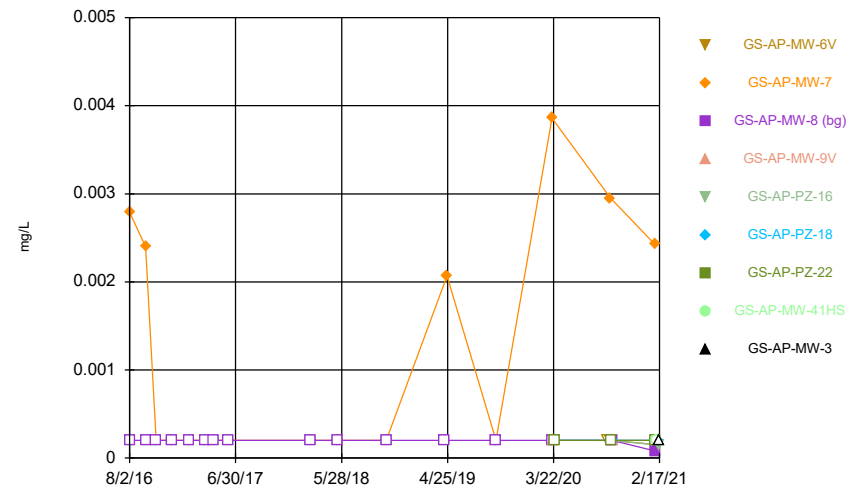
Constituent: Lead Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



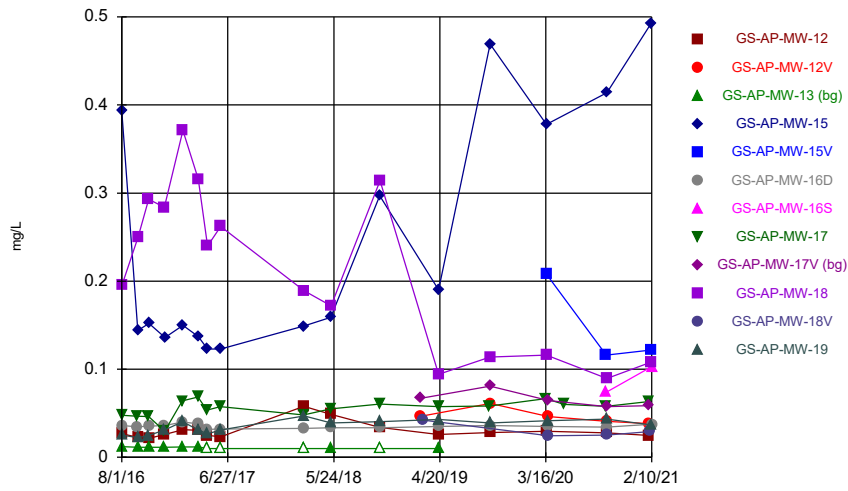
Constituent: Lead Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



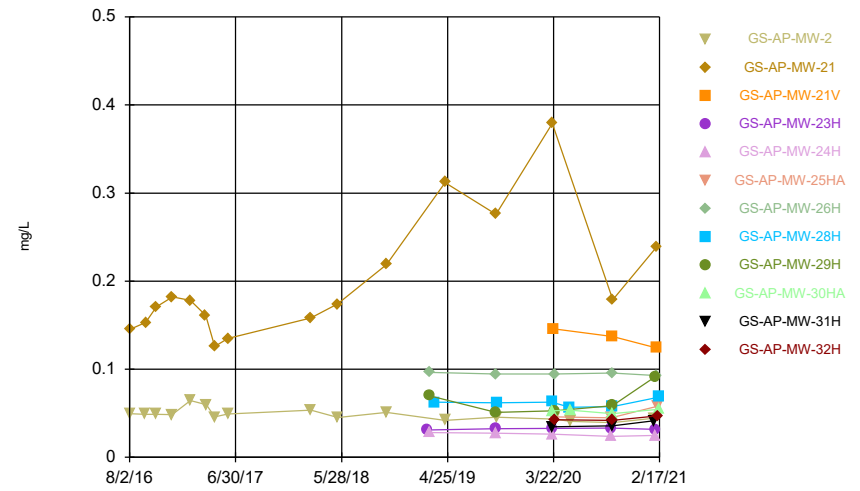
Constituent: Lead Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



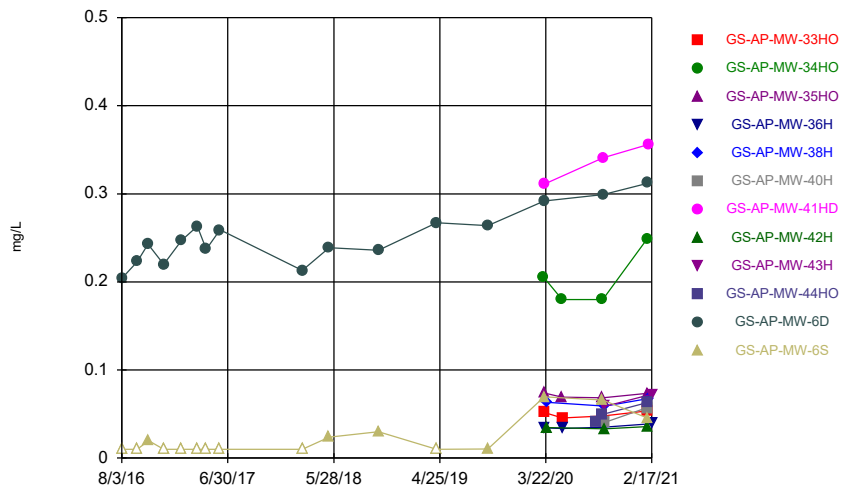
Constituent: Lithium Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



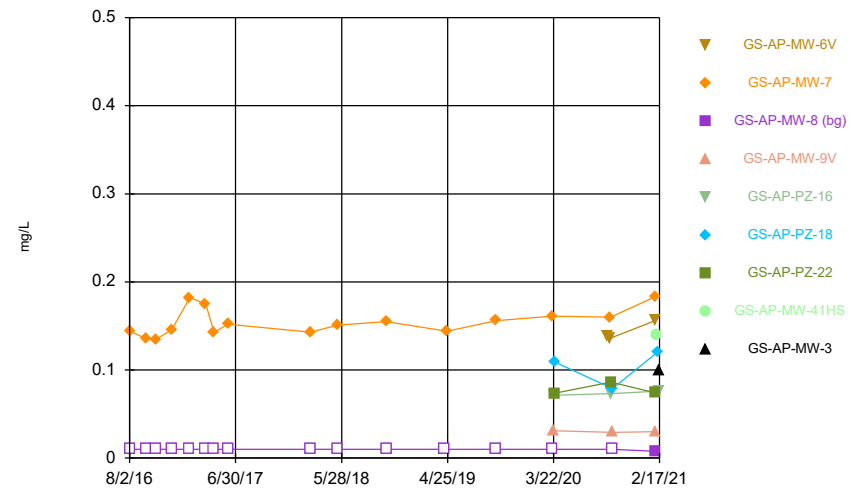
Constituent: Lithium Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



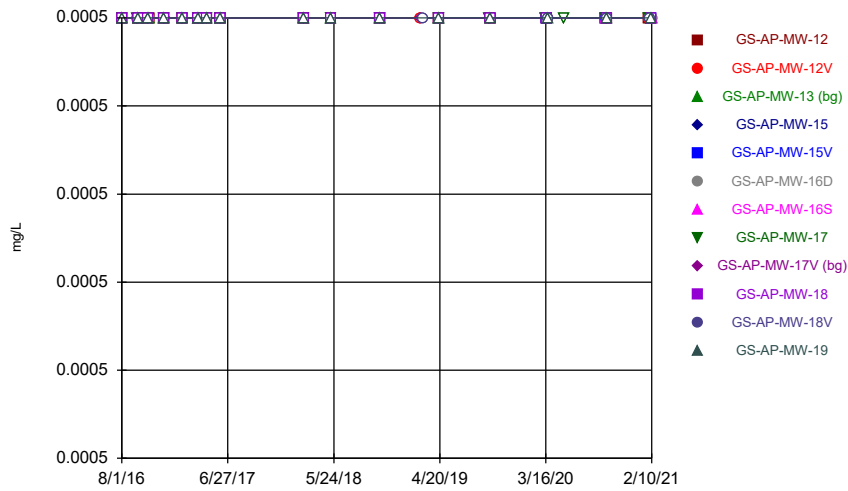
Constituent: Lithium Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



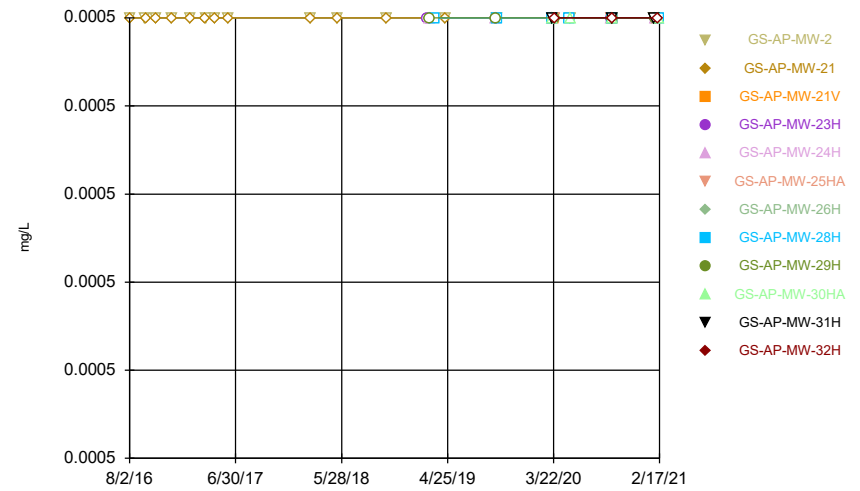
Constituent: Lithium Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



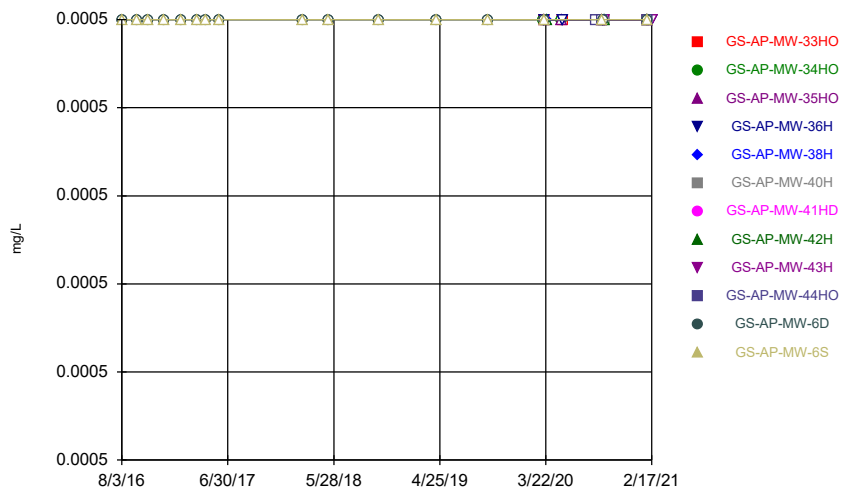
Constituent: Mercury Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



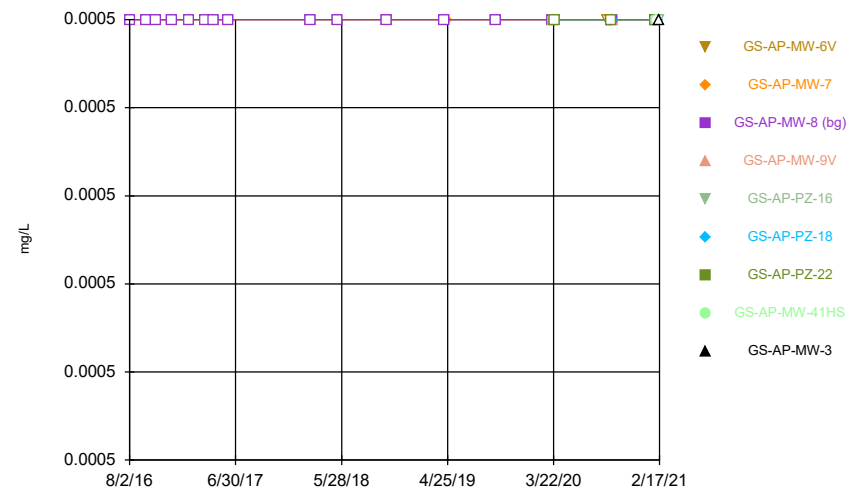
Constituent: Mercury Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



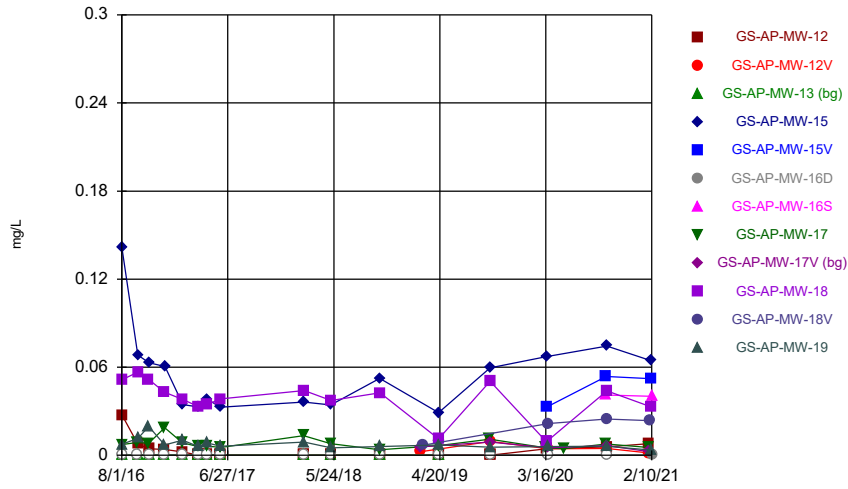
Constituent: Mercury Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



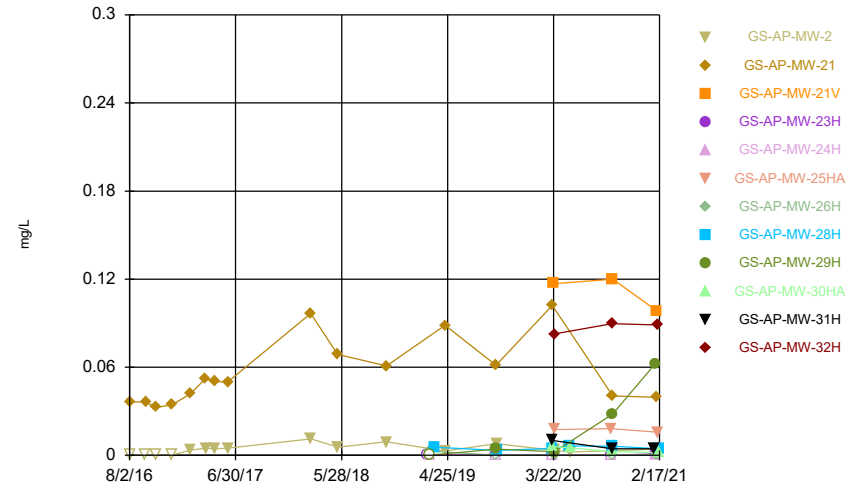
Constituent: Mercury Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



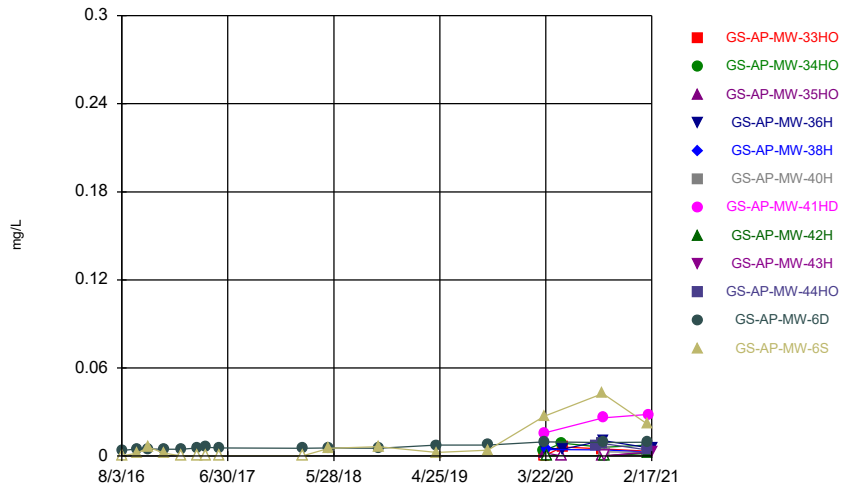
Constituent: Molybdenum Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



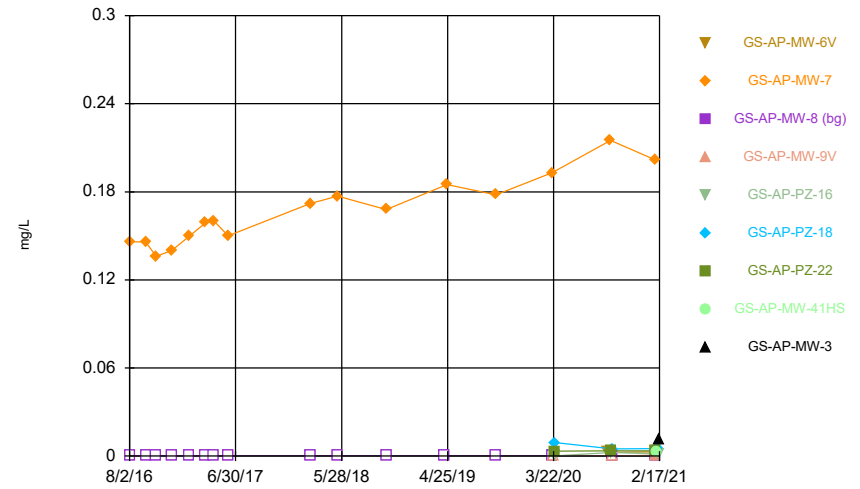
Constituent: Molybdenum Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



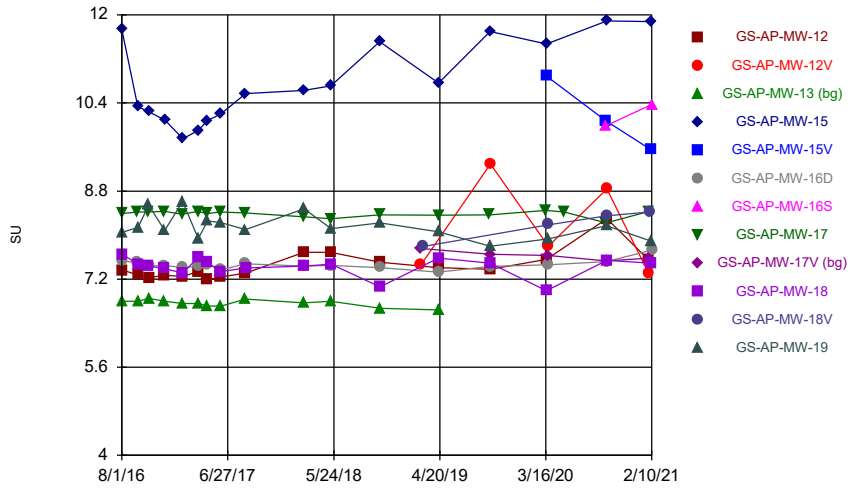
Constituent: Molybdenum Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



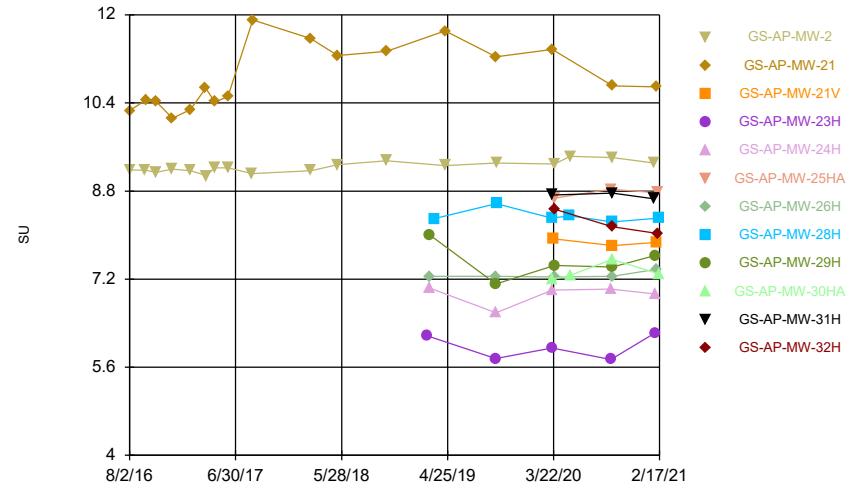
Constituent: Molybdenum Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



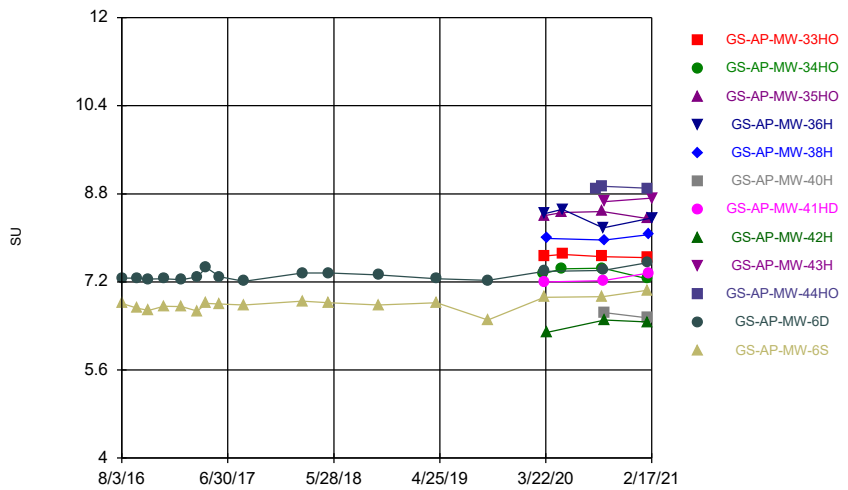
Constituent: pH Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



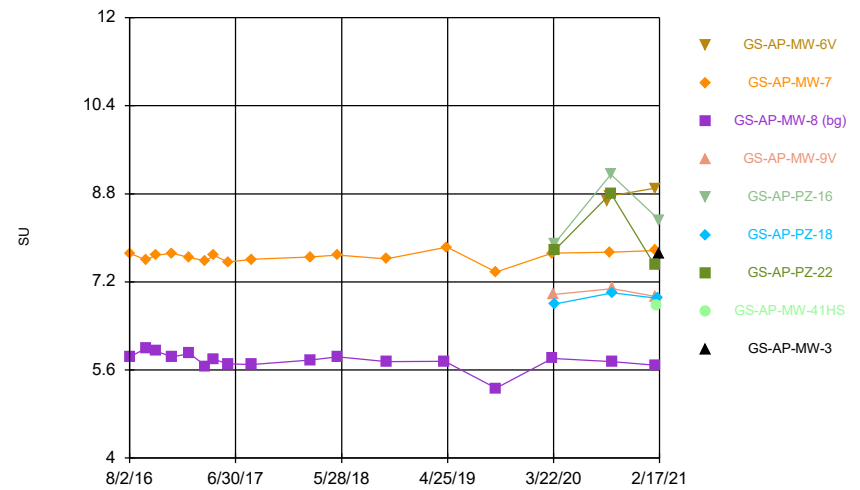
Constituent: pH Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



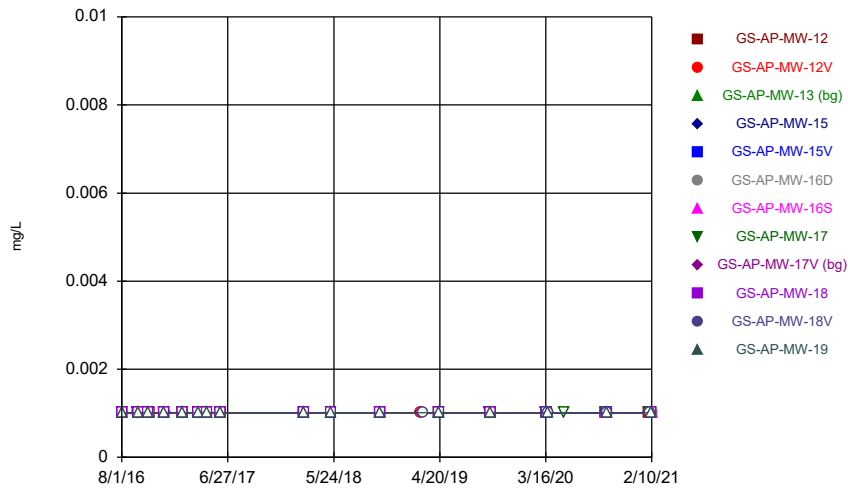
Constituent: pH Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series

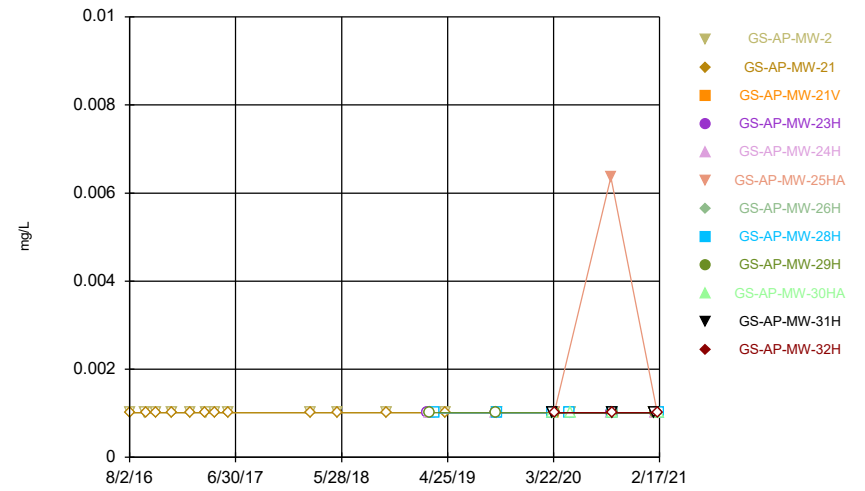


Constituent: pH Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

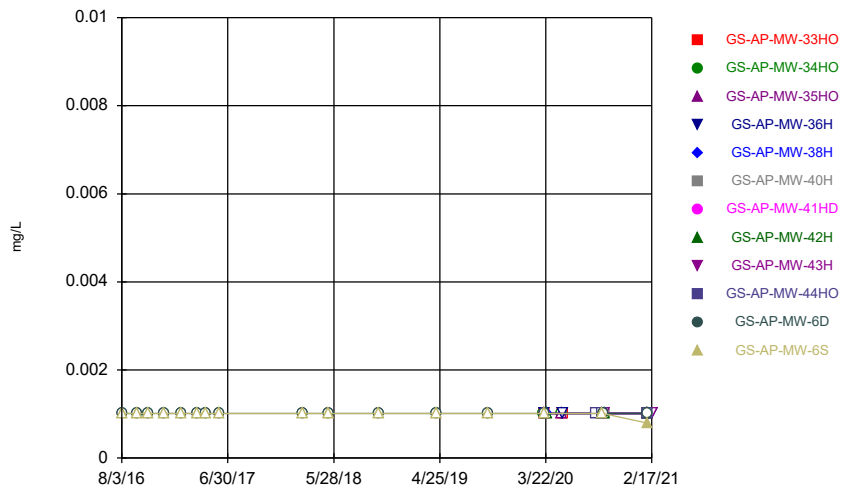
Time Series



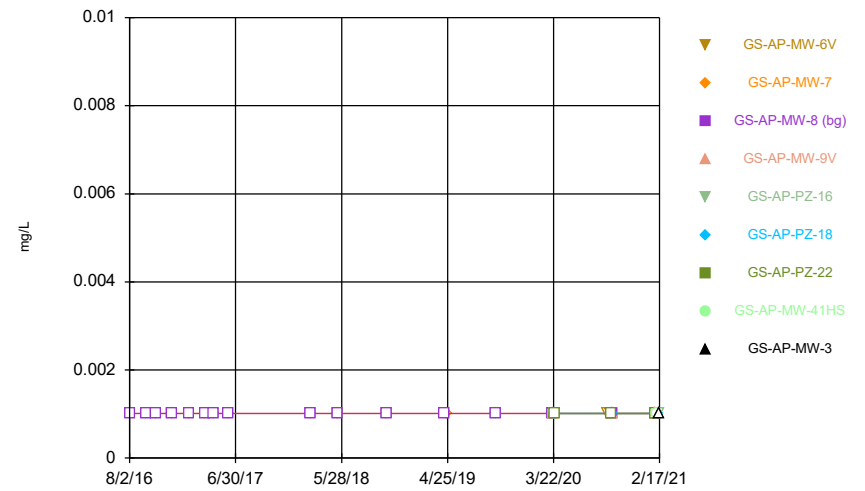
Time Series



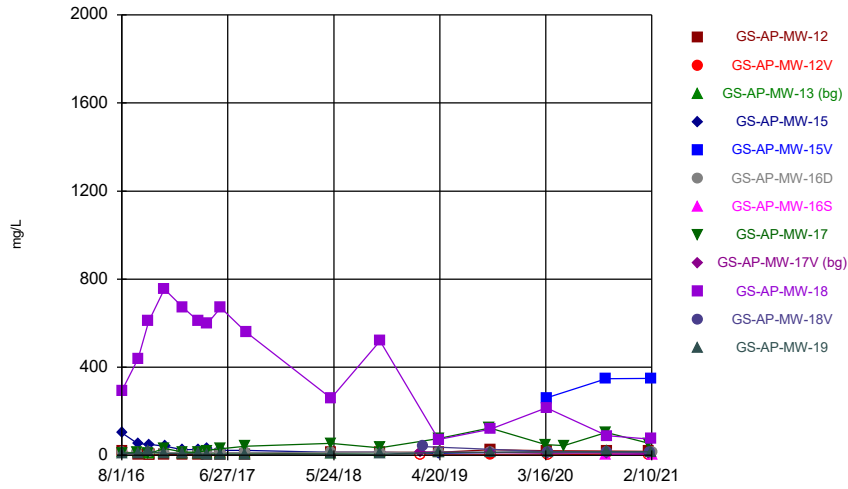
Time Series



Time Series

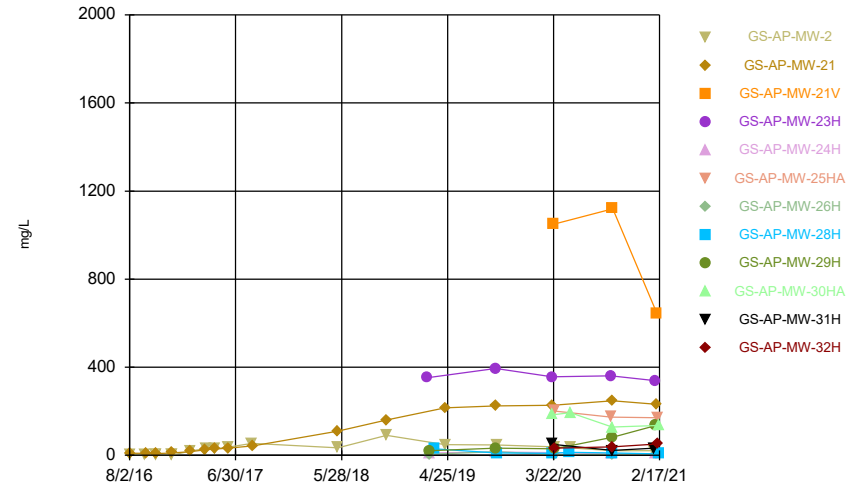


Time Series



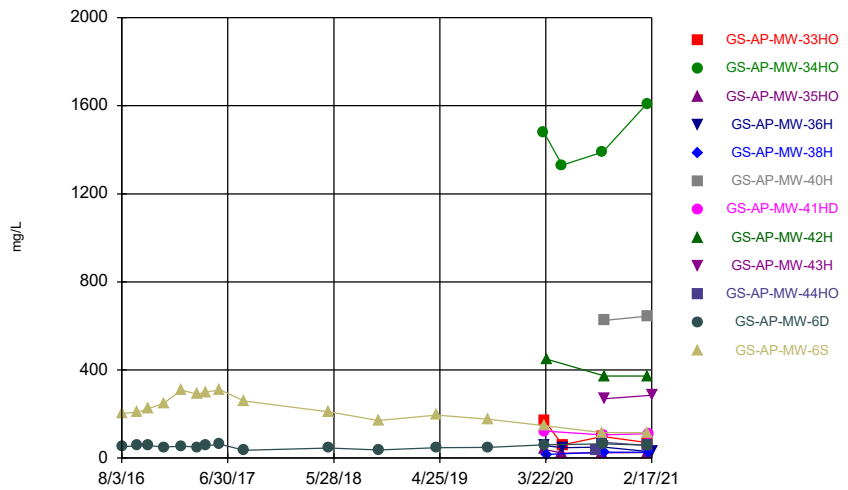
Constituent: Sulfate Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



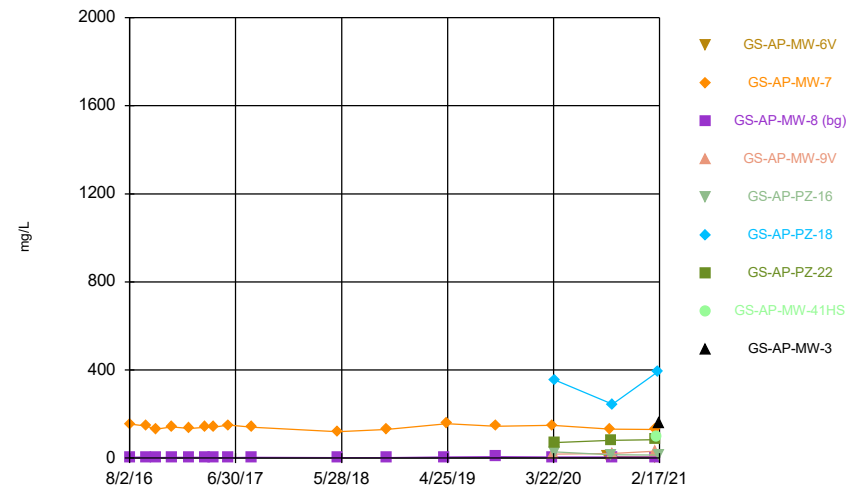
Constituent: Sulfate Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



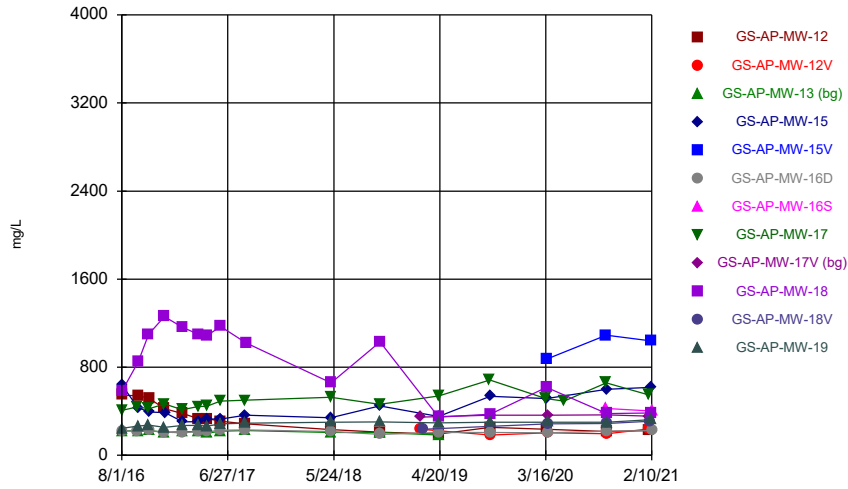
Constituent: Sulfate Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



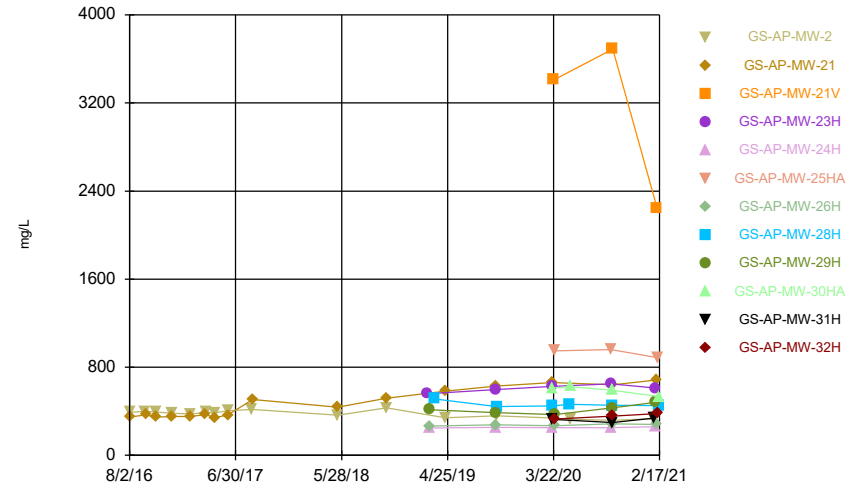
Constituent: Sulfate Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



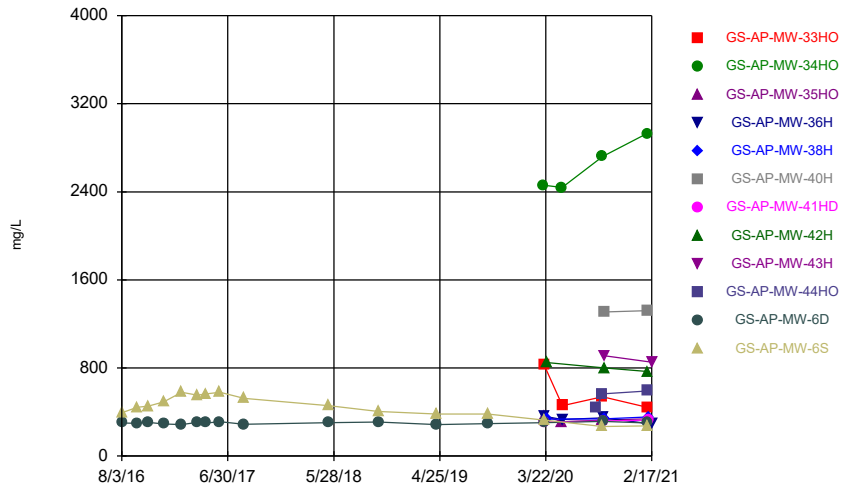
Constituent: TDS Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



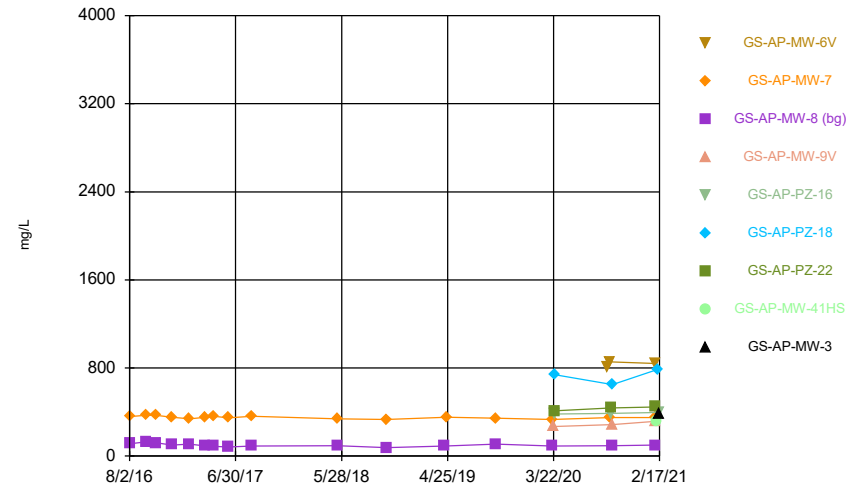
Constituent: TDS Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



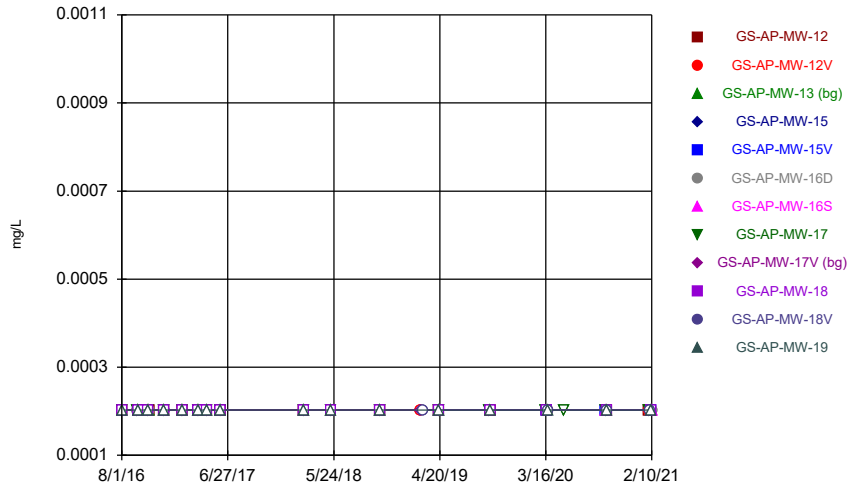
Constituent: TDS Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series

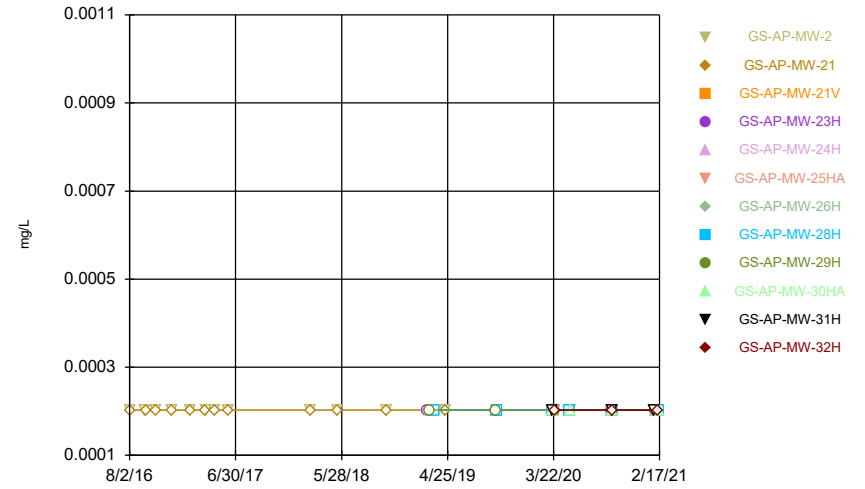


Constituent: TDS Analysis Run 5/24/2021 1:23 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

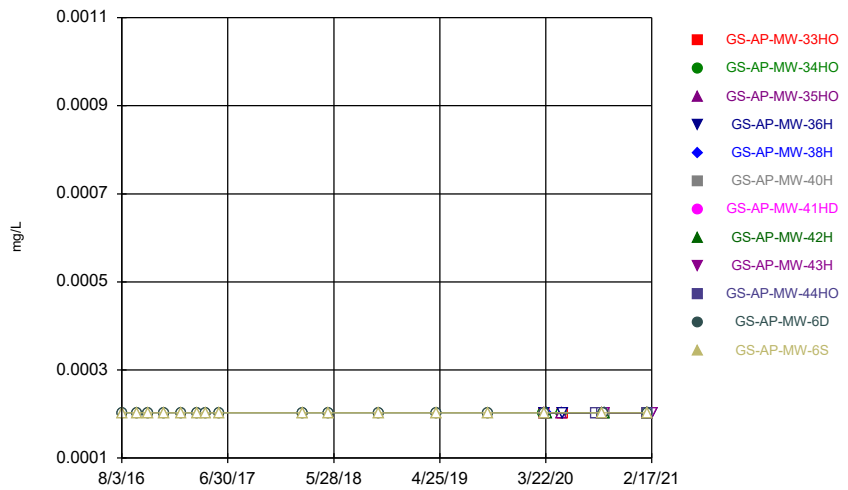
Time Series



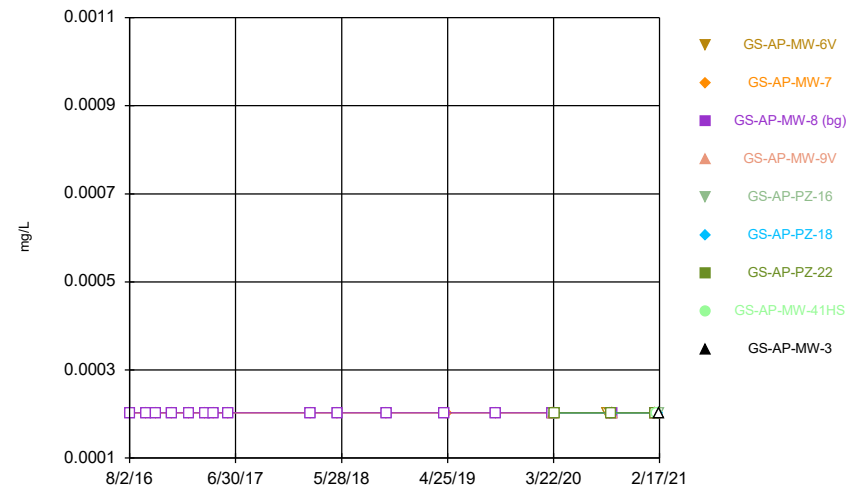
Time Series



Time Series



Time Series



Time Series

Constituent: Antimony (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

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)		<0.001015		<0.001015	
8/2/2016			<0.001015						
8/3/2016	<0.001015								
9/19/2016						<0.001015		0.000636 (J)	
9/20/2016	<0.001015		<0.001015	0.000876 (J)					
9/21/2016									
10/24/2016								<0.001015	
10/25/2016	<0.001015		<0.001015	<0.001015		<0.001015			
12/12/2016									
12/13/2016	0.000681 (J)		<0.001015			0.000633 (J)		0.00072 (J)	
12/14/2016				0.000858 (J)					
2/6/2017								<0.001015	
2/7/2017									
2/8/2017	<0.001015		<0.001015	<0.001015		<0.001015			
3/27/2017								<0.001015	
3/28/2017				<0.001015					
3/29/2017	<0.001015		<0.001015			<0.001015			
4/24/2017								<0.001015	
4/26/2017	<0.001015		<0.001015	<0.001015		<0.001015			
6/5/2017								<0.001015	
6/6/2017				<0.001015		<0.001015			
6/7/2017	<0.001015		<0.001015						
2/19/2018								<0.001015	
2/20/2018	<0.001015		<0.001015	0.000636 (J)					
2/21/2018						<0.001015			
5/15/2018	<0.001015		<0.001015	<0.001015				<0.001015	
5/16/2018						<0.001015			
10/15/2018				<0.001015				<0.001015	
10/16/2018	<0.001015								
10/17/2018			<0.001015			<0.001015			
2/20/2019									0.00115 (J)
2/21/2019		0.000841 (J)							
2/26/2019									
4/16/2019	<0.001015		<0.001015						
4/17/2019				<0.001015		<0.001015		<0.001015	
9/23/2019								<0.001015	
9/24/2019				<0.001015		<0.001015			<0.001015
9/25/2019	<0.001015	0.0025 (J)							
3/16/2020								<0.001015	
3/18/2020	0.0022 (J)			0.000976 (J)	0.0028 (J)				
3/24/2020		0.00128 (J)				<0.001015			
3/25/2020									<0.001015
5/12/2020								<0.001015	
9/21/2020					0.0028 (J)		<0.001015	<0.001015	
9/22/2020						<0.001015			
9/23/2020	0.00202 (J)	0.00152 (J)		0.000844 (J)					<0.001015
2/1/2021	0.000518 (J)	0.000861 (J)							
2/2/2021								<0.001015	<0.001015
2/3/2021									
2/8/2021									
2/9/2021				0.00075 (J)	0.00237				
2/10/2021						<0.001015	<0.001015		

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.001015
8/2/2016	<0.001015		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.001015		<0.001015
10/24/2016	<0.001015		<0.001015
10/25/2016			
12/12/2016	<0.001015		
12/13/2016			0.000613 (J)
12/14/2016			
2/6/2017			
2/7/2017			<0.001015
2/8/2017	<0.001015		
3/27/2017			
3/28/2017	<0.001015		<0.001015
3/29/2017			
4/24/2017			
4/26/2017	<0.001015		<0.001015
6/5/2017			
6/6/2017	<0.001015		<0.001015
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.001015		<0.001015
5/15/2018			
5/16/2018	<0.001015		<0.001015
10/15/2018			
10/16/2018	<0.001015		<0.001015
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.00098 (J)	
4/16/2019			
4/17/2019	<0.001015		<0.001015
9/23/2019			
9/24/2019	<0.001015		<0.001015
9/25/2019			
3/16/2020			
3/18/2020	<0.001015		
3/24/2020			<0.001015
3/25/2020		<0.001015	
5/12/2020			
9/21/2020			
9/22/2020		<0.001015	<0.001015
9/23/2020	<0.001015		
2/1/2021			
2/2/2021			
2/3/2021		<0.001015	
2/8/2021	<0.001015		<0.001015
2/9/2021			
2/10/2021			

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.001015	<0.001015							
9/19/2016	<0.001015								
9/21/2016		<0.001015							
10/24/2016	<0.001015								
10/25/2016		<0.001015							
12/13/2016	<0.001015								
12/14/2016		0.00119 (J)							
2/8/2017	<0.001015	<0.001015							
3/28/2017		<0.001015							
3/30/2017	<0.001015								
4/26/2017	<0.001015	<0.001015							
6/6/2017	<0.001015	<0.001015							
2/20/2018		<0.001015							
2/21/2018	<0.001015								
5/15/2018		<0.001015							
5/16/2018	<0.001015								
10/16/2018	<0.001015	<0.001015							
2/20/2019				0.000809 (J)					
2/26/2019					0.000918 (J)				
2/27/2019							0.00094 (J)		0.000932 (J)
3/13/2019								0.00241 (J)	
4/17/2019	<0.001015	<0.001015							
9/23/2019				<0.001015			<0.001015		
9/24/2019		<0.001015			<0.001015				<0.001015
9/25/2019	<0.001015							<0.001015	
3/16/2020								<0.001015	
3/17/2020				<0.001015					
3/18/2020		<0.001015			<0.001015				
3/23/2020				0.000831 (J)					
3/24/2020						<0.001015			
3/25/2020	<0.001015						<0.001015		<0.001015
5/12/2020								<0.001015	
5/13/2020	<0.001015								
9/17/2020				<0.001015	<0.001015	<0.001015			
9/21/2020							<0.001015		
9/22/2020	<0.001015							<0.001015	<0.001015
9/23/2020		<0.001015	<0.001015						
2/1/2021	<0.001015								
2/2/2021					<0.001015				
2/3/2021				<0.001015					<0.001015
2/8/2021		<0.001015							
2/9/2021				0.000661 (J)			<0.001015		
2/10/2021						<0.001015			
2/17/2021								<0.001015	

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.001015	<0.001015	
3/23/2020			
3/24/2020			<0.001015
3/25/2020			
5/12/2020			
5/13/2020	<0.001015		
9/17/2020			
9/21/2020	<0.001015		<0.001015
9/22/2020		<0.001015	
9/23/2020			
2/1/2021		<0.001015	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.001015
2/17/2021	<0.001015		

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.001015							
3/17/2020	<0.001015		<0.001015	<0.001015					
3/18/2020							<0.001015		
3/24/2020					<0.001015			<0.001015	
5/12/2020		<0.001015	<0.001015						
5/13/2020	<0.001015			<0.001015					
8/27/2020									
9/15/2020	<0.001015								
9/16/2020		<0.001015	<0.001015						
9/17/2020				<0.001015			<0.001015		
9/22/2020					<0.001015	<0.001015		<0.001015	<0.001015
2/2/2021						<0.001015			
2/3/2021	<0.001015	<0.001015						<0.001015	
2/4/2021			<0.001015						
2/8/2021							<0.001015		
2/9/2021					<0.001015				
2/17/2021				<0.001015					<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.001015	<0.001015
9/20/2016		<0.001015	<0.001015
10/24/2016		<0.001015	
10/26/2016			<0.001015
12/12/2016		0.00104 (J)	0.000727 (J)
2/6/2017		<0.001015	<0.001015
3/27/2017		<0.001015	<0.001015
4/24/2017		<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015
2/19/2018		<0.001015	<0.001015
5/14/2018		<0.001015	<0.001015
10/15/2018		<0.001015	<0.001015
4/16/2019		0.000828 (J)	<0.001015
9/23/2019		<0.001015	<0.001015
3/16/2020			
3/17/2020		<0.001015	<0.001015
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.0013 (J)		
9/15/2020	0.000819 (J)		
9/16/2020			0.000948 (J)
9/17/2020		<0.001015	
9/22/2020			
2/2/2021			
2/3/2021	<0.001015	<0.001015	0.00055 (J)
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.001015							
8/3/2016			<0.001015						
9/21/2016		<0.001015	<0.001015						
10/24/2016		<0.001015							
10/25/2016			<0.001015						
12/12/2016		0.000891 (J)							
12/13/2016			0.00067 (J)						
2/6/2017		<0.001015	<0.001015						
3/28/2017		<0.001015	<0.001015						
4/24/2017		<0.001015	<0.001015						
6/7/2017		<0.001015	<0.001015						
2/19/2018		<0.001015	<0.001015						
5/15/2018		<0.001015	<0.001015						
10/15/2018		<0.001015							
10/16/2018			<0.001015						
4/16/2019			<0.001015						
4/23/2019		0.00105 (J)							
9/24/2019		<0.001015	<0.001015						
3/17/2020		<0.001015							
3/18/2020			<0.001015						
3/23/2020				<0.001015					
3/24/2020					<0.001015		<0.001015		
3/25/2020						<0.001015			
9/8/2020	<0.001015								
9/15/2020	<0.001015								
9/16/2020		<0.001015							
9/17/2020					<0.001015		<0.001015		
9/21/2020			<0.001015						
9/22/2020				<0.001015		<0.001015			
2/2/2021		<0.001015	<0.001015	<0.001015			<0.001015		
2/3/2021	<0.001015								
2/8/2021								<0.001015	
2/10/2021						<0.001015			
2/17/2021				<0.001015					<0.001015

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

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		<0.000203		0.00138 (J)	
8/2/2016			<0.000203						
8/3/2016	0.11								
9/19/2016						<0.000203		0.00137 (J)	
9/20/2016	0.0746		<0.000203	0.0111					
9/21/2016									
10/24/2016								0.00122 (J)	
10/25/2016	0.0728		<0.000203	0.0109		<0.000203			
12/12/2016									
12/13/2016	0.0538		<0.000203			<0.000203		0.00243 (J)	
12/14/2016				0.011					
2/6/2017								0.00158 (J)	
2/7/2017									
2/8/2017	0.0427		<0.000203	0.00625		<0.000203			
3/27/2017								0.0011 (J)	
3/28/2017				0.00558					
3/29/2017	0.0404		<0.000203			<0.000203			
4/24/2017								0.00133 (J)	
4/26/2017	0.0372		<0.000203	0.007		<0.000203			
6/5/2017								0.00115 (J)	
6/6/2017				0.00663		<0.000203			
6/7/2017	0.0307		<0.000203						
2/19/2018								0.00424 (J)	
2/20/2018	0.0282		<0.000203	0.00724					
2/21/2018						<0.000203			
5/15/2018	0.0253		<0.000203	0.00749				0.00352 (J)	
5/16/2018						<0.000203			
10/15/2018				0.0123				0.0018 (J)	
10/16/2018	0.0203								
10/17/2018			<0.000203			<0.000203			
2/20/2019									0.0011 (J)
2/21/2019		<0.000203							
2/26/2019									
4/16/2019	0.014		<0.000203						
4/17/2019				0.00633		<0.000203		0.00343 (J)	
9/23/2019								0.00631	
9/24/2019				0.011		<0.000203			0.00149 (J)
9/25/2019	0.0135	0.00129 (J)							
3/16/2020								0.00268 (J)	
3/18/2020	0.00693			0.0217	0.011				
3/24/2020		0.00266 (J)				<0.000203			
3/25/2020									<0.000203
5/12/2020								0.00326 (J)	
9/21/2020					0.0167		0.00174 (J)	0.0055	
9/22/2020						<0.000203			
9/23/2020	0.00616	0.00176 (J)		0.0165					<0.000203
2/1/2021	0.00747	0.00154							
2/2/2021								0.00478	0.000243
2/3/2021									
2/8/2021									
2/9/2021				0.0145	0.0165				
2/10/2021						0.000491	0.00173		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.000203
8/2/2016	0.0505		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	0.0527		<0.000203
10/24/2016	0.0597		<0.000203
10/25/2016			
12/12/2016	0.0659		
12/13/2016			<0.000203
12/14/2016			
2/6/2017			
2/7/2017			<0.000203
2/8/2017	0.0669		
3/27/2017			
3/28/2017	0.0668		<0.000203
3/29/2017			
4/24/2017			
4/26/2017	0.0722		<0.000203
6/5/2017			
6/6/2017	0.0673		<0.000203
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	0.0922		0.00138 (J)
5/15/2018			
5/16/2018	0.0876		0.00114 (J)
10/15/2018			
10/16/2018	0.0158		0.00216 (J)
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.00368 (J)	
4/16/2019			
4/17/2019	0.00481 (J)		0.00302 (J)
9/23/2019			
9/24/2019	0.00854		0.00289 (J)
9/25/2019			
3/16/2020			
3/18/2020	0.00583		
3/24/2020			0.00313 (J)
3/25/2020		0.0063	
5/12/2020			
9/21/2020			
9/22/2020		0.00654	0.00313 (J)
9/23/2020	0.00873		
2/1/2021			
2/2/2021			
2/3/2021		0.00588	
2/8/2021	0.00826		0.00178
2/9/2021			
2/10/2021			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.000203	0.0027 (J)							
9/19/2016	<0.000203								
9/21/2016		0.00258 (J)							
10/24/2016	<0.000203								
10/25/2016		0.00214 (J)							
12/13/2016	<0.000203								
12/14/2016		0.00193 (J)							
2/8/2017	<0.000203	0.00188 (J)							
3/28/2017		0.00153 (J)							
3/30/2017	<0.000203								
4/26/2017	<0.000203	0.00135 (J)							
6/6/2017	<0.000203	0.00131 (J)							
2/20/2018		<0.000203							
2/21/2018	<0.000203								
5/15/2018		<0.000203							
5/16/2018	<0.000203								
10/16/2018	<0.000203	<0.000203							
2/20/2019				0.0306					
2/26/2019					<0.000203				
2/27/2019							<0.000203		<0.000203
3/13/2019								0.00142 (J)	
4/17/2019	<0.000203	<0.000203							
9/23/2019				0.0369			<0.000203		
9/24/2019		<0.000203			<0.000203				0.00155 (J)
9/25/2019	<0.000203							<0.000203	
3/16/2020								<0.000203	
3/17/2020				0.0524					
3/18/2020		<0.000203			<0.000203				
3/23/2020			0.0159						
3/24/2020						0.00798			
3/25/2020	<0.000203						<0.000203		0.00141 (J)
5/12/2020								0.00135 (J)	
5/13/2020	<0.000203								
9/17/2020				0.0579	<0.000203	0.00904			
9/21/2020							0.00143 (J)		
9/22/2020	<0.000203							0.00112 (J)	0.00109 (J)
9/23/2020		<0.000203	0.01						
2/1/2021	<0.000203								
2/2/2021					0.000341				
2/3/2021				0.0562					0.00794
2/8/2021		0.000624							
2/9/2021			0.0063				0.000192 (J)		
2/10/2021						0.00923			
2/17/2021								0.000796	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

Date	GS-AP-MW-30HA	GS-AP-MW-31H	GS-AP-MW-32H
8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	0.00813	0.0012 (J)	
3/23/2020			
3/24/2020			<0.000203
3/25/2020			
5/12/2020			
5/13/2020	0.00779		
9/17/2020			
9/21/2020	0.00551		<0.000203
9/22/2020		<0.000203	
9/23/2020			
2/1/2021		0.000325	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			0.000838
2/17/2021	0.00354		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		0.00351 (J)							
3/17/2020	0.0044 (J)		0.00105 (J)	0.00171 (J)					
3/18/2020							<0.000203		
3/24/2020					0.00302 (J)			0.00944	
5/12/2020		0.00668	<0.000203						
5/13/2020	0.00308 (J)			0.00122 (J)					
8/27/2020									
9/15/2020	0.00275 (J)								
9/16/2020		0.00308 (J)	<0.000203						
9/17/2020				0.0013 (J)			0.0016 (J)		
9/22/2020					0.00304 (J)	0.00193 (J)		0.00912	0.0039 (J)
2/2/2021						0.000958			
2/3/2021	0.00177	0.00257						0.00806	
2/4/2021			0.000442						
2/8/2021							0.00148		
2/9/2021					0.0026				
2/17/2021				0.00102					0.00132

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		0.0547	0.0103
9/20/2016		0.0625	0.0103
10/24/2016		0.0695	
10/26/2016			0.0115
12/12/2016		0.0611	0.0106
2/6/2017		0.0618	0.0106
3/27/2017		0.0711	0.00989
4/24/2017		0.0787	0.00907
6/6/2017		0.0778	0.0105
2/19/2018		0.0616	0.0108
5/14/2018		0.074	0.00864
10/15/2018		0.0758	0.00832
4/16/2019		0.088	0.0164
9/23/2019		0.0876	0.0105
3/16/2020			
3/17/2020		0.105	0.00778
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.00321 (J)		
9/15/2020	0.00184 (J)		
9/16/2020			0.00611
9/17/2020		0.0931	
9/22/2020			
2/2/2021			
2/3/2021	0.000795	0.104	0.0071
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		0.188							
8/3/2016			0.00214 (J)						
9/21/2016		0.179	0.00112 (J)						
10/24/2016		0.151							
10/25/2016			<0.000203						
12/12/2016		0.181							
12/13/2016			<0.000203						
2/6/2017		0.194	0.00111 (J)						
3/28/2017		0.205	0.00109 (J)						
4/24/2017		0.202	<0.000203						
6/7/2017		0.193	<0.000203						
2/19/2018		0.182	<0.000203						
5/15/2018		0.211	<0.000203						
10/15/2018		0.217							
10/16/2018			<0.000203						
4/16/2019			<0.000203						
4/23/2019		0.207							
9/24/2019		0.233	<0.000203						
3/17/2020		0.285							
3/18/2020			<0.000203						
3/23/2020				<0.000203					
3/24/2020					<0.000203		0.00367 (J)		
3/25/2020						0.0275			
9/8/2020	<0.000203								
9/15/2020	<0.000203								
9/16/2020		0.282							
9/17/2020					<0.000203		0.00387 (J)		
9/21/2020			<0.000203						
9/22/2020				<0.000203		0.0119			
2/2/2021		0.275	0.000228	0.000101 (J)			0.00338		
2/3/2021	0.000767								
2/8/2021								0.000551	
2/10/2021						0.016			
2/17/2021					0.000258				0.000168 (J)

Time Series

Constituent: Barium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

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			
12/12/2016									
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			
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	
3/18/2020	0.195			0.14	0.155				
3/24/2020		1.43				0.323			
3/25/2020									0.314
5/12/2020								0.0941	
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
2/3/2021									
2/8/2021									
2/9/2021				0.132	0.2				
2/10/2021						0.356	0.0976		

Time Series

Constituent: Barium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			0.492
8/2/2016	0.21		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	0.107		0.371
10/24/2016	0.0999		0.311
10/25/2016			
12/12/2016	0.0772		
12/13/2016			0.374
12/14/2016			
2/6/2017			
2/7/2017			0.368
2/8/2017	0.0625		
3/27/2017			
3/28/2017	0.0581		0.391
3/29/2017			
4/24/2017			
4/26/2017	0.0587		0.371
6/5/2017			
6/6/2017	0.0452		0.33
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	0.0455		0.291
5/15/2018			
5/16/2018	0.0505		0.343
10/15/2018			
10/16/2018	0.0436		0.35
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.243	
4/16/2019			
4/17/2019	0.105		0.316
9/23/2019			
9/24/2019	0.0896		0.356
9/25/2019			
3/16/2020			
3/18/2020	0.0587		
3/24/2020			0.324
3/25/2020		0.234	
5/12/2020			
9/21/2020			
9/22/2020		0.253	0.337
9/23/2020	0.0911		
2/1/2021			
2/2/2021			
2/3/2021		0.26	
2/8/2021	0.126		0.36
2/9/2021			
2/10/2021			

Time Series

Constituent: Barium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	0.0791	0.106	
3/23/2020			
3/24/2020			0.0362
3/25/2020			
5/12/2020			
5/13/2020	0.0819		
9/17/2020			
9/21/2020	0.0811		0.0396
9/22/2020		0.0916	
9/23/2020			
2/1/2021		0.0974	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			0.0511
2/17/2021	0.089		

Time Series

Constituent: Barium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		0.0309							
3/17/2020	0.329		0.0426	0.0353					
3/18/2020							0.0393		
3/24/2020					0.253			0.0253	
5/12/2020		0.0379	0.0472						
5/13/2020	0.324			0.03					
8/27/2020									
9/15/2020	0.469								
9/16/2020		0.0451	0.0532						
9/17/2020				0.0378			0.0414		
9/22/2020					0.319	0.0417		0.0237	0.0921
2/2/2021						0.0384			
2/3/2021	0.465	0.0543						0.0216	
2/4/2021			0.052						
2/8/2021							0.0434		
2/9/2021					0.356				
2/17/2021				0.0463					0.0894

Time Series

Constituent: Barium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		0.852	0.27
9/20/2016		0.685	0.228
10/24/2016		0.711	
10/26/2016			0.23
12/12/2016		0.789	0.276
2/6/2017		0.779	0.25
3/27/2017		0.77	0.196
4/24/2017		0.716	0.159
6/6/2017		0.611	0.137
2/19/2018		0.872	0.145
5/14/2018		0.914	0.12
10/15/2018		0.896	0.118
4/16/2019		0.879	0.124
9/23/2019		0.903	0.124
3/16/2020			
3/17/2020		0.638	0.0725
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.0867		
9/15/2020	0.0783		
9/16/2020			0.0682
9/17/2020		0.378	
9/22/2020			
2/2/2021			
2/3/2021	0.0602	0.443	0.0779
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Barium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		0.0927							
8/3/2016			0.0274						
9/21/2016		0.0979	0.0811						
10/24/2016		0.0751							
10/25/2016			0.0576						
12/12/2016		0.0737							
12/13/2016			0.0241						
2/6/2017		0.0773	0.0747						
3/28/2017		0.0728	0.0183						
4/24/2017		0.0724	0.04						
6/7/2017		0.0581	0.00769 (J)						
2/19/2018		0.0464	0.00762 (J)						
5/15/2018		0.0501	0.00701 (J)						
10/15/2018		0.049							
10/16/2018			0.0094 (J)						
4/16/2019			0.00459 (J)						
4/23/2019		0.113							
9/24/2019		0.0834	0.0434						
3/17/2020		0.174							
3/18/2020			0.00507 (J)						
3/23/2020				0.215					
3/24/2020					0.295		0.104		
3/25/2020						0.028			
9/8/2020	0.164								
9/15/2020	0.16								
9/16/2020		0.124							
9/17/2020					0.223		0.109		
9/21/2020			0.026						
9/22/2020				0.187		0.0432			
2/2/2021		0.115	0.0068	0.17			0.0891		
2/3/2021	0.124								
2/8/2021								0.0544	
2/10/2021						0.0405			
2/17/2021					0.27				0.59

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

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				<0.001015		<0.001015		<0.001015	
8/2/2016			<0.001015						
8/3/2016	<0.001015								
9/19/2016						<0.001015		<0.001015	
9/20/2016	<0.001015		<0.001015	<0.001015					
9/21/2016									
10/24/2016								<0.001015	
10/25/2016	<0.001015		<0.001015	<0.001015		<0.001015			
12/12/2016									
12/13/2016	<0.001015		<0.001015			<0.001015		<0.001015	
12/14/2016				<0.001015					
2/6/2017								<0.001015	
2/7/2017									
2/8/2017	<0.001015		<0.001015	<0.001015		<0.001015			
3/27/2017								<0.001015	
3/28/2017				<0.001015					
3/29/2017	<0.001015		<0.001015			<0.001015			
4/24/2017								<0.001015	
4/26/2017	<0.001015		<0.001015	<0.001015		<0.001015			
6/5/2017								<0.001015	
6/6/2017				<0.001015		<0.001015			
6/7/2017	<0.001015		<0.001015						
2/19/2018								<0.001015	
2/20/2018	<0.001015		<0.001015	<0.001015					
2/21/2018						<0.001015			
5/15/2018	<0.001015		<0.001015	<0.001015				<0.001015	
5/16/2018						<0.001015			
10/15/2018				<0.001015				<0.001015	
10/16/2018	<0.001015								
10/17/2018			<0.001015			0.00109 (J)			
2/20/2019									<0.001015
2/21/2019		<0.001015							
2/26/2019									
4/16/2019	<0.001015		<0.001015						
4/17/2019				<0.001015		<0.001015		<0.001015	
9/23/2019								<0.001015	
9/24/2019				<0.001015		<0.001015			<0.001015
9/25/2019	<0.001015	<0.001015							
3/16/2020								<0.001015	
3/18/2020	<0.001015			<0.001015	<0.001015				
3/24/2020		<0.001015				<0.001015			
3/25/2020									<0.001015
5/12/2020								<0.001015	
9/21/2020					<0.001015		<0.001015	<0.001015	
9/22/2020						<0.001015			
9/23/2020	<0.001015	<0.001015		<0.001015					<0.001015
2/1/2021	<0.001015	<0.001015							
2/2/2021								<0.001015	<0.001015
2/3/2021									
2/8/2021									
2/9/2021				<0.001015	<0.001015				
2/10/2021						<0.001015	<0.001015		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.001015
8/2/2016	<0.001015		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.001015		<0.001015
10/24/2016	<0.001015		<0.001015
10/25/2016			
12/12/2016	<0.001015		
12/13/2016			<0.001015
12/14/2016			
2/6/2017			
2/7/2017			<0.001015
2/8/2017	<0.001015		
3/27/2017			
3/28/2017	<0.001015		<0.001015
3/29/2017			
4/24/2017			
4/26/2017	<0.001015		<0.001015
6/5/2017			
6/6/2017	<0.001015		<0.001015
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.001015		<0.001015
5/15/2018			
5/16/2018	<0.001015		<0.001015
10/15/2018			
10/16/2018	<0.001015		<0.001015
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.001015	
4/16/2019			
4/17/2019	<0.001015		<0.001015
9/23/2019			
9/24/2019	<0.001015		<0.001015
9/25/2019			
3/16/2020			
3/18/2020	<0.001015		
3/24/2020			<0.001015
3/25/2020		<0.001015	
5/12/2020			
9/21/2020			
9/22/2020		<0.001015	<0.001015
9/23/2020	<0.001015		
2/1/2021			
2/2/2021			
2/3/2021		<0.001015	
2/8/2021	<0.001015		<0.001015
2/9/2021			
2/10/2021			

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.001015	<0.001015							
9/19/2016	<0.001015								
9/21/2016		<0.001015							
10/24/2016	<0.001015								
10/25/2016		<0.001015							
12/13/2016	<0.001015								
12/14/2016		<0.001015							
2/8/2017	<0.001015	<0.001015							
3/28/2017		<0.001015							
3/30/2017	<0.001015								
4/26/2017	<0.001015	<0.001015							
6/6/2017	<0.001015	<0.001015							
2/20/2018		<0.001015							
2/21/2018	<0.001015								
5/15/2018		<0.001015							
5/16/2018	<0.001015								
10/16/2018	0.00138 (J)	<0.001015							
2/20/2019				<0.001015					
2/26/2019					<0.001015				
2/27/2019							<0.001015		<0.001015
3/13/2019								<0.001015	
4/17/2019	<0.001015	<0.001015							
9/23/2019				<0.001015			<0.001015		
9/24/2019		<0.001015			<0.001015				<0.001015
9/25/2019	<0.001015							<0.001015	
3/16/2020								<0.001015	
3/17/2020				<0.001015					
3/18/2020		<0.001015			<0.001015				
3/23/2020			<0.001015						
3/24/2020						<0.001015			
3/25/2020	<0.001015						<0.001015		<0.001015
5/12/2020								<0.001015	
5/13/2020	<0.001015								
9/17/2020				<0.001015	<0.001015	<0.001015			
9/21/2020							<0.001015		
9/22/2020	<0.001015							<0.001015	<0.001015
9/23/2020		<0.001015	<0.001015						
2/1/2021	<0.001015								
2/2/2021					<0.001015				
2/3/2021				<0.001015					<0.001015
2/8/2021		<0.001015							
2/9/2021			<0.001015				<0.001015		
2/10/2021						<0.001015			
2/17/2021								<0.001015	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.001015	<0.001015	
3/23/2020			
3/24/2020			<0.001015
3/25/2020			
5/12/2020			
5/13/2020	<0.001015		
9/17/2020			
9/21/2020	<0.001015		<0.001015
9/22/2020		<0.001015	
9/23/2020			
2/1/2021		<0.001015	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.001015
2/17/2021	<0.001015		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.001015							
3/17/2020	<0.001015		<0.001015	<0.001015					
3/18/2020							<0.001015		
3/24/2020					<0.001015			<0.001015	
5/12/2020		<0.001015	<0.001015						
5/13/2020	<0.001015			<0.001015					
8/27/2020									
9/15/2020	<0.001015								
9/16/2020		<0.001015	<0.001015						
9/17/2020				<0.001015			<0.001015		
9/22/2020					<0.001015	<0.001015		<0.001015	<0.001015
2/2/2021						<0.001015			
2/3/2021	<0.001015	<0.001015						<0.001015	
2/4/2021			<0.001015						
2/8/2021							<0.001015		
2/9/2021					<0.001015				
2/17/2021				<0.001015					<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.001015	<0.001015
9/20/2016		<0.001015	<0.001015
10/24/2016		<0.001015	
10/26/2016			<0.001015
12/12/2016		<0.001015	<0.001015
2/6/2017		<0.001015	<0.001015
3/27/2017		<0.001015	<0.001015
4/24/2017		<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015
2/19/2018		<0.001015	<0.001015
5/14/2018		<0.001015	<0.001015
10/15/2018		<0.001015	0.000794 (J)
4/16/2019		<0.001015	<0.001015
9/23/2019		<0.001015	<0.001015
3/16/2020			
3/17/2020		<0.001015	<0.001015
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.001015		
9/15/2020	<0.001015		
9/16/2020			<0.001015
9/17/2020		<0.001015	
9/22/2020			
2/2/2021			
2/3/2021	<0.001015	<0.001015	<0.001015
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.001015							
8/3/2016			<0.001015						
9/21/2016		<0.001015	<0.001015						
10/24/2016		<0.001015							
10/25/2016			<0.001015						
12/12/2016		<0.001015							
12/13/2016			<0.001015						
2/6/2017		<0.001015	<0.001015						
3/28/2017		<0.001015	<0.001015						
4/24/2017		<0.001015	<0.001015						
6/7/2017		<0.001015	<0.001015						
2/19/2018		<0.001015	<0.001015						
5/15/2018		<0.001015	<0.001015						
10/15/2018		<0.001015							
10/16/2018			<0.001015						
4/16/2019			<0.001015						
4/23/2019		<0.001015							
9/24/2019		<0.001015	<0.001015						
3/17/2020		<0.001015							
3/18/2020			<0.001015						
3/23/2020				<0.001015					
3/24/2020					<0.001015		<0.001015		
3/25/2020						<0.001015			
9/8/2020	<0.001015								
9/15/2020	<0.001015								
9/16/2020		<0.001015							
9/17/2020					<0.001015		<0.001015		
9/21/2020			<0.001015						
9/22/2020				<0.001015		<0.001015			
2/2/2021		<0.001015	<0.001015	<0.001015			<0.001015		
2/3/2021	<0.001015								
2/8/2021								<0.001015	
2/10/2021						<0.001015			
2/17/2021				<0.001015					<0.001015

Time Series

Constituent: Boron (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

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)			
12/12/2016									
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)			
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						
8/22/2017	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)	
3/18/2020	0.0449 (J)			0.0596 (J)	0.0565 (J)				
3/24/2020		0.0343 (J)				<0.1015			
3/25/2020									0.0482 (J)
5/12/2020								0.0862 (J)	
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)
2/3/2021									
2/8/2021									
2/9/2021				0.0521 (J)	0.0722 (J)				
2/10/2021						<0.1015	0.0762 (J)		

Time Series

Constituent: Boron (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			0.0279 (J)
8/2/2016	1.21		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	1.32		0.0235 (J)
10/24/2016	1.6		0.0444 (J)
10/25/2016			
12/12/2016	1.82		
12/13/2016			0.0285 (J)
12/14/2016			
2/6/2017			
2/7/2017			0.03 (J)
2/8/2017	1.79		
3/27/2017			
3/28/2017	1.62		0.0309 (J)
3/29/2017			
4/24/2017			
4/26/2017	1.53		0.0273 (J)
6/5/2017			
6/6/2017	1.73		0.0212 (J)
6/7/2017			
8/22/2017			0.0294 (J)
8/23/2017	1.71		
5/15/2018			
5/16/2018	1.23		0.0356 (J)
10/15/2018			
10/16/2018	2.12		0.0363 (J)
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.109	
4/16/2019			
4/17/2019	0.449		0.0336 (J)
9/23/2019			
9/24/2019	0.883		0.0375 (J)
9/25/2019			
3/16/2020			
3/18/2020	0.492		
3/24/2020			0.0398 (J)
3/25/2020		0.0834 (J)	
5/12/2020			
9/21/2020			
9/22/2020		0.0769 (J)	0.037 (J)
9/23/2020	0.491		
2/1/2021			
2/2/2021			
2/3/2021		0.0766 (J)	
2/8/2021	0.546		0.0336 (J)
2/9/2021			
2/10/2021			

Time Series

Constituent: Boron (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	0.178	0.176 (o)							
9/19/2016	0.0937 (J)								
9/21/2016		0.0723 (J)							
10/24/2016	0.0986 (J)								
10/25/2016		0.0867 (J)							
12/13/2016	0.0965 (J)								
12/14/2016		0.092 (J)							
2/8/2017	0.0896 (J)	0.0803 (J)							
3/28/2017		0.0804 (J)							
3/30/2017	0.0871 (J)								
4/26/2017	0.0818 (J)	0.0801 (J)							
6/6/2017	0.0805 (J)	0.0795 (J)							
8/21/2017	0.102								
8/23/2017		0.0764 (J)							
5/15/2018		0.0769 (J)							
5/16/2018	0.147								
10/16/2018	0.169	0.0764 (J)							
2/20/2019				0.0498 (J)					
2/26/2019					0.0719 (J)				
2/27/2019							<0.1015		0.0359 (J)
3/13/2019								0.0819 (J)	
4/17/2019	0.165	0.0675 (J)							
9/23/2019				0.0641 (J)			<0.1015		
9/24/2019		0.0843 (J)			0.0821 (J)				0.0305 (J)
9/25/2019	0.153							0.0784 (J)	
3/16/2020								0.0751 (J)	
3/17/2020				0.0504 (J)					
3/18/2020		0.0824 (J)			0.0811 (J)				
3/23/2020			0.122						
3/24/2020						0.146			
3/25/2020	0.163						<0.1015		<0.1015
5/12/2020								0.0719 (J)	
5/13/2020	0.154								
9/17/2020				0.0637 (J)	0.069 (J)	0.138			
9/21/2020							0.0334 (J)		
9/22/2020	0.133							0.0728 (J)	0.175
9/23/2020		0.0871 (J)	0.126						
2/1/2021	0.13								
2/2/2021					0.0685 (J)				
2/3/2021				0.0425 (J)					0.809
2/8/2021		0.0991 (J)							
2/9/2021			0.114				<0.1015		
2/10/2021					0.147				
2/17/2021								0.0748 (J)	

Time Series

Constituent: Boron (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
8/21/2017			
8/23/2017			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	0.0734 (J)	<0.1015	
3/23/2020			
3/24/2020			0.0492 (J)
3/25/2020			
5/12/2020			
5/13/2020	0.0747 (J)		
9/17/2020			
9/21/2020	0.0814 (J)		0.0455 (J)
9/22/2020		<0.1015	
9/23/2020			
2/1/2021		<0.1015	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			0.0477 (J)
2/17/2021	0.0668 (J)		

Time Series

Constituent: Boron (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
8/21/2017									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		0.0827 (J)							
3/17/2020	0.066 (J)		<0.1015	0.0394 (J)					
3/18/2020							1.45		
3/24/2020					0.0468 (J)			<0.1015	
5/12/2020		0.0929 (J)	<0.1015						
5/13/2020	0.0409 (J)			0.0359 (J)					
8/27/2020									
9/15/2020	0.0425 (J)								
9/16/2020		0.0874 (J)	<0.1015						
9/17/2020				0.0345 (J)			1.42		
9/22/2020					0.0461 (J)	0.0326 (J)		0.0469 (J)	0.12
2/2/2021						0.0305 (J)			
2/3/2021	0.0453 (J)	0.0964 (J)						0.053 (J)	
2/4/2021			<0.1015						
2/8/2021							1.48		
2/9/2021					0.0504 (J)				
2/17/2021				0.0413 (J)					0.119

Time Series

Constituent: Boron (mg/L) Analysis Run 5/24/2021 1:28 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		1.04	1.16
9/20/2016		1.01	1.16
10/24/2016		1.08	
10/26/2016			1.24
12/12/2016		1.09	1.24
2/6/2017		1.06	1.1
3/27/2017		1.07	1.04
4/24/2017		1.08	1
6/6/2017		1.11	1.02
8/21/2017		0.906	1.05
5/14/2018		1.04	0.99
10/15/2018		1.06	1.05
4/16/2019		1.1	0.961
9/23/2019		1.15	1.08
3/16/2020			
3/17/2020		1.17	0.867
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.0366 (J)		
9/15/2020	0.0404 (J)		
9/16/2020			0.8
9/17/2020		1.22	
9/22/2020			
2/2/2021			
2/3/2021	0.0472 (J)	1.24	0.817
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Boron (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		1.57							
8/3/2016			0.0239 (J)						
9/21/2016		1.4	<0.1015						
10/24/2016		1.42							
10/25/2016			<0.1015						
12/12/2016		1.38							
12/13/2016			<0.1015						
2/6/2017		1.44	<0.1015						
3/28/2017		1.44	<0.1015						
4/24/2017		1.41	<0.1015						
6/7/2017		1.45	<0.1015						
8/21/2017		1.39	<0.1015						
5/15/2018		1.5	<0.1015						
10/15/2018		1.53							
10/16/2018			<0.1015						
4/16/2019			<0.1015						
4/23/2019		1.5							
9/24/2019		1.6	<0.1015						
3/17/2020		1.58							
3/18/2020			<0.1015						
3/23/2020				0.0316 (J)					
3/24/2020					0.0772 (J)		0.0521 (J)		
3/25/2020						0.0568 (J)			
9/8/2020	0.0974 (J)								
9/15/2020	0.0974 (J)								
9/16/2020		1.54							
9/17/2020					0.0824 (J)		0.0454 (J)		
9/21/2020			<0.1015						
9/22/2020				0.0348 (J)		0.0603 (J)			
2/2/2021		1.6	<0.1015	0.0358 (J)			0.0486 (J)		
2/3/2021	0.1 (J)								
2/8/2021								1.06	
2/10/2021						0.0701 (J)			
2/17/2021				0.089 (J)					0.426

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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				<0.000203		<0.000203		<0.000203	
8/2/2016			<0.000203						
8/3/2016	<0.000203								
9/19/2016						<0.000203		<0.000203	
9/20/2016	<0.000203		<0.000203	<0.000203					
9/21/2016									
10/24/2016								<0.000203	
10/25/2016	<0.000203		<0.000203	<0.000203		<0.000203			
12/12/2016									
12/13/2016	<0.000203		<0.000203			<0.000203		<0.000203	
12/14/2016				<0.000203					
2/6/2017								<0.000203	
2/7/2017									
2/8/2017	<0.000203		<0.000203	<0.000203		<0.000203			
3/27/2017								<0.000203	
3/28/2017				<0.000203					
3/29/2017	<0.000203		<0.000203			<0.000203			
4/24/2017								<0.000203	
4/26/2017	<0.000203		<0.000203	<0.000203		<0.000203			
6/5/2017								<0.000203	
6/6/2017				<0.000203		<0.000203			
6/7/2017	<0.000203		<0.000203						
2/19/2018								<0.000203	
2/20/2018	<0.000203		<0.000203	<0.000203					
2/21/2018						<0.000203			
5/15/2018	<0.000203		<0.000203	<0.000203				<0.000203	
5/16/2018						<0.000203			
10/15/2018				<0.000203				<0.000203	
10/16/2018	<0.000203								
10/17/2018			<0.000203			<0.000203			
2/20/2019									<0.000203
2/21/2019		<0.000203							
2/26/2019									
4/16/2019	<0.000203		<0.000203						
4/17/2019				<0.000203		<0.000203		<0.000203	
9/23/2019								<0.000203	
9/24/2019				<0.000203		<0.000203			<0.000203
9/25/2019	<0.000203	<0.000203							
3/16/2020								<0.000203	
3/18/2020	<0.000203			<0.000203	<0.000203				
3/24/2020		<0.000203				<0.000203			
3/25/2020									<0.000203
5/12/2020								<0.000203	
9/21/2020					<0.000203		<0.000203	<0.000203	
9/22/2020						<0.000203			
9/23/2020	<0.000203	<0.000203		<0.000203					<0.000203
2/1/2021	<0.000203	<0.000203							
2/2/2021								<0.000203	<0.000203
2/3/2021									
2/8/2021									
2/9/2021				<0.000203	<0.000203				
2/10/2021						<0.000203	<0.000203		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.000203
8/2/2016	<0.000203		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.000203		<0.000203
10/24/2016	<0.000203		<0.000203
10/25/2016			
12/12/2016	<0.000203		
12/13/2016			<0.000203
12/14/2016			
2/6/2017			
2/7/2017			<0.000203
2/8/2017	<0.000203		
3/27/2017			
3/28/2017	<0.000203		<0.000203
3/29/2017			
4/24/2017			
4/26/2017	<0.000203		<0.000203
6/5/2017			
6/6/2017	<0.000203		<0.000203
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.000203		<0.000203
5/15/2018			
5/16/2018	<0.000203		<0.000203
10/15/2018			
10/16/2018	<0.000203		<0.000203
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.000203	
4/16/2019			
4/17/2019	<0.000203		<0.000203
9/23/2019			
9/24/2019	<0.000203		<0.000203
9/25/2019			
3/16/2020			
3/18/2020	<0.000203		
3/24/2020			<0.000203
3/25/2020		<0.000203	
5/12/2020			
9/21/2020			
9/22/2020		<0.000203	<0.000203
9/23/2020	<0.000203		
2/1/2021			
2/2/2021			
2/3/2021		<0.000203	
2/8/2021	<0.000203		<0.000203
2/9/2021			
2/10/2021			

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.000203	<0.000203							
9/19/2016	<0.000203								
9/21/2016		<0.000203							
10/24/2016	<0.000203								
10/25/2016		<0.000203							
12/13/2016	<0.000203								
12/14/2016		<0.000203							
2/8/2017	<0.000203	<0.000203							
3/28/2017		<0.000203							
3/30/2017	<0.000203								
4/26/2017	<0.000203	<0.000203							
6/6/2017	<0.000203	<0.000203							
2/20/2018		<0.000203							
2/21/2018	<0.000203								
5/15/2018		<0.000203							
5/16/2018	<0.000203								
10/16/2018	<0.000203	<0.000203							
2/20/2019				<0.000203					
2/26/2019					<0.000203				
2/27/2019							<0.000203		<0.000203
3/13/2019								<0.000203	
4/17/2019	<0.000203	<0.000203							
9/23/2019				<0.000203			<0.000203		
9/24/2019		<0.000203			<0.000203				<0.000203
9/25/2019	<0.000203							<0.000203	
3/16/2020								<0.000203	
3/17/2020				<0.000203					
3/18/2020		<0.000203			<0.000203				
3/23/2020			<0.000203						
3/24/2020						<0.000203			
3/25/2020	<0.000203						<0.000203		<0.000203
5/12/2020								<0.000203	
5/13/2020	<0.000203								
9/17/2020				<0.000203	<0.000203	<0.000203			
9/21/2020							<0.000203		
9/22/2020	<0.000203							<0.000203	<0.000203
9/23/2020		<0.000203	<0.000203						
2/1/2021	<0.000203								
2/2/2021					<0.000203				
2/3/2021				<0.000203					<0.000203
2/8/2021		<0.000203							
2/9/2021			<0.000203				<0.000203		
2/10/2021						<0.000203			
2/17/2021								<0.000203	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.000203	<0.000203	
3/23/2020			
3/24/2020			<0.000203
3/25/2020			
5/12/2020			
5/13/2020	<0.000203		
9/17/2020			
9/21/2020	<0.000203		<0.000203
9/22/2020		<0.000203	
9/23/2020		<0.000203	
2/1/2021		<0.000203	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.000203
2/17/2021	<0.000203		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.000203							
3/17/2020	<0.000203		<0.000203	<0.000203					
3/18/2020							<0.000203		
3/24/2020					<0.000203			<0.000203	
5/12/2020		<0.000203	<0.000203						
5/13/2020	<0.000203			<0.000203					
8/27/2020									
9/15/2020	<0.000203								
9/16/2020		<0.000203	<0.000203						
9/17/2020				<0.000203			<0.000203		
9/22/2020					<0.000203	<0.000203		<0.000203	<0.000203
2/2/2021						<0.000203			
2/3/2021	<0.000203	<0.000203						<0.000203	
2/4/2021			<0.000203						
2/8/2021							<0.000203		
2/9/2021					<0.000203				
2/17/2021				<0.000203					<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.000203	<0.000203
9/20/2016		<0.000203	<0.000203
10/24/2016		<0.000203	
10/26/2016			<0.000203
12/12/2016		<0.000203	<0.000203
2/6/2017		<0.000203	<0.000203
3/27/2017		<0.000203	<0.000203
4/24/2017		<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203
2/19/2018		<0.000203	<0.000203
5/14/2018		<0.000203	<0.000203
10/15/2018		<0.000203	<0.000203
4/16/2019		<0.000203	<0.000203
9/23/2019		<0.000203	<0.000203
3/16/2020			
3/17/2020		<0.000203	<0.000203
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.000203		
9/15/2020	<0.000203		
9/16/2020			<0.000203
9/17/2020		<0.000203	
9/22/2020			
2/2/2021			
2/3/2021	<0.000203	<0.000203	<0.000203
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.000203							
8/3/2016			<0.000203						
9/21/2016		<0.000203	<0.000203						
10/24/2016		<0.000203							
10/25/2016			<0.000203						
12/12/2016		<0.000203							
12/13/2016			<0.000203						
2/6/2017		<0.000203	<0.000203						
3/28/2017		<0.000203	<0.000203						
4/24/2017		<0.000203	<0.000203						
6/7/2017		<0.000203	<0.000203						
2/19/2018		<0.000203	<0.000203						
5/15/2018		<0.000203	<0.000203						
10/15/2018		<0.000203							
10/16/2018			<0.000203						
4/16/2019			<0.000203						
4/23/2019		<0.000203							
9/24/2019		<0.000203	<0.000203						
3/17/2020		<0.000203							
3/18/2020			<0.000203						
3/23/2020				<0.000203					
3/24/2020					<0.000203		<0.000203		
3/25/2020						<0.000203			
9/8/2020	<0.000203								
9/15/2020	<0.000203								
9/16/2020		<0.000203							
9/17/2020					<0.000203		<0.000203		
9/21/2020			<0.000203						
9/22/2020				<0.000203		<0.000203			
2/2/2021		<0.000203	<0.000203	<0.000203			<0.000203		
2/3/2021	<0.000203								
2/8/2021								<0.000203	
2/10/2021						<0.000203			
2/17/2021				<0.000203					<0.000203

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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			
12/12/2016									
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			
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						
8/22/2017	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	
3/18/2020	44			5.25	8.01				
3/24/2020		48.9				34.1			
3/25/2020									31.1
5/12/2020								2.95	
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
2/3/2021									
2/8/2021									
2/9/2021				4.38	10				
2/10/2021						34.6	15.7		

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			39.6
8/2/2016	64.2		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	110		38.1
10/24/2016	166		34.7
10/25/2016			
12/12/2016	204		
12/13/2016			44
12/14/2016			
2/6/2017			
2/7/2017			39
2/8/2017	199		
3/27/2017			
3/28/2017	162		43.9
3/29/2017			
4/24/2017			
4/26/2017	159		42.8
6/5/2017			
6/6/2017	159		43.1
6/7/2017			
8/22/2017			40.7
8/23/2017	153		
5/15/2018			
5/16/2018	92.1		45.3
10/15/2018			
10/16/2018	203		40.9
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		13.6	
4/16/2019			
4/17/2019	40.9		38.4
9/23/2019			
9/24/2019	57.4		48.4
9/25/2019			
3/16/2020			
3/18/2020	90.9		
3/24/2020			41.7
3/25/2020		6.18	
5/12/2020			
9/21/2020			
9/22/2020		5.12	46.9
9/23/2020	38.8		
2/1/2021			
2/2/2021			
2/3/2021		5.57	
2/8/2021	45.6		56.8
2/9/2021			
2/10/2021			

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
8/21/2017			
8/23/2017			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	36	6.06	
3/23/2020			
3/24/2020			2.62
3/25/2020			
5/12/2020			
5/13/2020	35.3		
9/17/2020			
9/21/2020	29.4		3
9/22/2020		5.31	
9/23/2020			
2/1/2021		4.92	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			3.24
2/17/2021	29.7		

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
8/21/2017									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		83.8							
3/17/2020	42.3		5.27	3.45					
3/18/2020							56.6		
3/24/2020					9.33			149	
5/12/2020		80.4	3.04						
5/13/2020	25.2			2.93					
8/27/2020									
9/15/2020	29.5								
9/16/2020		86.9	3.04						
9/17/2020				4.12			61.1		
9/22/2020					9.56	205		142	2.82
2/2/2021						199			
2/3/2021	30.3	100						134	
2/4/2021			3.3						
2/8/2021							60.8		
2/9/2021					10.6				
2/17/2021				3.16					4.82

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		48.1	42.5
9/20/2016		51.2	51.1
10/24/2016		49.5	
10/26/2016			65.6
12/12/2016		54.3	66.5
2/6/2017		51.2	73.1
3/27/2017		51.4	71.9
4/24/2017		54.7	73.5
6/6/2017		53.9	71.8
8/21/2017		47.3	63.5
5/14/2018		54.8	67.5
10/15/2018		53.9	68.9
4/16/2019		54	57.1
9/23/2019		56.1	60
3/16/2020			
3/17/2020		57.2	59.3
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	2.89		
9/15/2020	2.94		
9/16/2020			55.9
9/17/2020		61.5	
9/22/2020			
2/2/2021			
2/3/2021	2.87	56.9	50.7
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		19.4							
8/3/2016			6.85						
9/21/2016		15.4	11.7						
10/24/2016		14.8							
10/25/2016			10.8						
12/12/2016		15							
12/13/2016			5.86						
2/6/2017		14.9	9.76						
3/28/2017		14.3	5.28						
4/24/2017		14.5	6.89						
6/7/2017		14.1	3.58						
8/21/2017		12.6	3.38						
5/15/2018		12.9	4.25						
10/15/2018		12.5							
10/16/2018			3.21						
4/16/2019			4.43						
4/23/2019		13.8							
9/24/2019		13.4	7.24						
3/17/2020		13.5							
3/18/2020			4.51						
3/23/2020				42.9					
3/24/2020					13.9		19.3		
3/25/2020						34.5			
9/8/2020	1.8								
9/15/2020	1.74								
9/16/2020		12.2							
9/17/2020					9.69		12.6		
9/21/2020			5.19						
9/22/2020				45.3		26.2			
2/2/2021		12.2	4.35	44.8			16.5		
2/3/2021	1.5								
2/8/2021								49.8	
2/10/2021						40.5			
2/17/2021				9.59					39.3

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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			
12/12/2016									
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			
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						
8/22/2017	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	
3/18/2020	4.22			8	108				
3/24/2020		4.46				2.88			
3/25/2020									3.72
5/12/2020								9.16	
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
2/3/2021									
2/8/2021									
2/9/2021				6.12	197				
2/10/2021						3.19	6.17		

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			6.67
8/2/2016	20.8		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	23.3		6.54
10/24/2016	27.9		8.77
10/25/2016			
12/12/2016	36		
12/13/2016			6.16
12/14/2016			
2/6/2017			
2/7/2017			7.57
2/8/2017	33.3		
3/27/2017			
3/28/2017	35		5.9
3/29/2017			
4/24/2017			
4/26/2017	34		6.5
6/5/2017			
6/6/2017	36		5.5
6/7/2017			
8/22/2017			6.5
8/23/2017	31		
5/15/2018			
5/16/2018	22		6.6
10/15/2018			
10/16/2018	35		6.2
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		7.13	
4/16/2019			
4/17/2019	6.61		7.27
9/23/2019			
9/24/2019	12.3		5.83
9/25/2019			
3/16/2020			
3/18/2020	6.68		
3/24/2020			6.29
3/25/2020		6.23	
5/12/2020			
9/21/2020			
9/22/2020		5.57	6.6
9/23/2020	5.29		
2/1/2021			
2/2/2021			
2/3/2021		5.68	
2/8/2021	5.48		6
2/9/2021			
2/10/2021			

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
8/21/2017			
8/23/2017			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	5.14	41.3	
3/23/2020			
3/24/2020			20.5
3/25/2020			
5/12/2020			
5/13/2020	4.24		
9/17/2020			
9/21/2020	3.45		28.2
9/22/2020		27.3	
9/23/2020			
2/1/2021		31.2	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			39.4
2/17/2021	3.69		

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
8/21/2017									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		101							
3/17/2020	108		23.9	29.4					
3/18/2020							6.02		
3/24/2020					12.6			3.35	
5/12/2020		148	14.5						
5/13/2020	63.3			27.2					
8/27/2020									
9/15/2020	75.6								
9/16/2020		210	20.9						
9/17/2020				38.5			6.63		
9/22/2020					24.8	30.4		7.07	78
2/2/2021						36.8			
2/3/2021	55.2	156						10.1	
2/4/2021			23.9						
2/8/2021							6.44		
2/9/2021					28.1				
2/17/2021				24.3					96.3

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		5.2	21.9
9/20/2016		5.31	20.9
10/24/2016		5.4	
10/26/2016			20.7
12/12/2016		5.46	21.1
2/6/2017		5.28	23.3
3/27/2017		6.4	25
4/24/2017		6.5	24
6/6/2017		4.7	22
8/21/2017		6.1	21
5/14/2018		6	20
10/15/2018		7	20
4/16/2019		8.36	23.1
9/23/2019		8.72	23.4
3/16/2020			
3/17/2020		10.1	17.4
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	27.1		
9/15/2020	36.2		
9/16/2020			14.6
9/17/2020		10.5	
9/22/2020			
2/2/2021			
2/3/2021	44.8	12.2	14.9
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		3.7							
8/3/2016			3.21						
9/21/2016		3.74	2.95						
10/24/2016		3.75							
10/25/2016			3.03						
12/12/2016		4.06							
12/13/2016			3.21						
2/6/2017		3.92	3						
3/28/2017		4.3	3.3						
4/24/2017		4.6	3.8						
6/7/2017		4.3	3.5						
8/21/2017		4.7	3.6						
5/15/2018		4.3	3.3						
10/15/2018		5.1							
10/16/2018			3.3						
4/16/2019			3.69						
4/23/2019		5.16							
9/24/2019		5.76	3.21						
3/17/2020		6.65							
3/18/2020			4.35						
3/23/2020				5.13					
3/24/2020					5.72		2.53		
3/25/2020						2.88			
9/8/2020	50.4								
9/15/2020	49.8								
9/16/2020		6.17							
9/17/2020					6.57		2.46		
9/21/2020			3.22						
9/22/2020				7.57		2.73			
2/2/2021		6.76	3.85	10.8			2.99		
2/3/2021	48								
2/8/2021								9.18	
2/10/2021						3.2			
2/17/2021					6.69				17.4

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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)		<0.001015		<0.001015	
8/2/2016			<0.001015						
8/3/2016	<0.001015								
9/19/2016						<0.001015		<0.001015	
9/20/2016	<0.001015		<0.001015	<0.001015					
9/21/2016									
10/24/2016								<0.001015	
10/25/2016	<0.001015		<0.001015	<0.001015		<0.001015			
12/12/2016									
12/13/2016	<0.001015		<0.001015			<0.001015		<0.001015	
12/14/2016				<0.001015					
2/6/2017								<0.001015	
2/7/2017									
2/8/2017	<0.001015		<0.001015	<0.001015		<0.001015			
3/27/2017								<0.001015	
3/28/2017				<0.001015					
3/29/2017	<0.001015		<0.001015			<0.001015			
4/24/2017								<0.001015	
4/26/2017	<0.001015		<0.001015	<0.001015		<0.001015			
6/5/2017								<0.001015	
6/6/2017				<0.001015		<0.001015			
6/7/2017	<0.001015		<0.001015						
2/19/2018								<0.001015	
2/20/2018	<0.001015		<0.001015	<0.001015					
2/21/2018						<0.001015			
5/15/2018	<0.001015		<0.001015	<0.001015				<0.001015	
5/16/2018						<0.001015			
10/15/2018				<0.001015				<0.001015	
10/16/2018	<0.001015								
10/17/2018			<0.001015			<0.001015			
2/20/2019									<0.001015
2/21/2019		<0.001015							
2/26/2019									
4/16/2019	<0.001015		<0.001015						
4/17/2019				<0.001015		<0.001015		<0.001015	
9/23/2019								<0.001015	
9/24/2019				<0.001015		<0.001015			0.00405 (J)
9/25/2019	<0.001015	0.00202 (J)							
3/16/2020								<0.001015	
3/18/2020	<0.001015			<0.001015	0.00716 (J)				
3/24/2020		0.00774 (J)				<0.001015			
3/25/2020									<0.001015
5/12/2020								<0.001015	
9/21/2020					0.00239 (J)		<0.001015	<0.001015	
9/22/2020						<0.001015			
9/23/2020	<0.001015	0.00362 (J)		<0.001015					<0.001015
2/1/2021	<0.001015	0.00311							
2/2/2021								0.00255	0.000313 (J)
2/3/2021									
2/8/2021									
2/9/2021				0.00072 (J)	0.00142				
2/10/2021						0.00107	0.000246 (J)		

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.001015
8/2/2016	<0.001015		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.001015		<0.001015
10/24/2016	<0.001015		<0.001015
10/25/2016			
12/12/2016	<0.001015		
12/13/2016			<0.001015
12/14/2016			
2/6/2017			
2/7/2017			<0.001015
2/8/2017	<0.001015		
3/27/2017			
3/28/2017	<0.001015		<0.001015
3/29/2017			
4/24/2017			
4/26/2017	<0.001015		<0.001015
6/5/2017			
6/6/2017	<0.001015		<0.001015
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.001015		<0.001015
5/15/2018			
5/16/2018	<0.001015		<0.001015
10/15/2018			
10/16/2018	<0.001015		<0.001015
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.001015	
4/16/2019			
4/17/2019	<0.001015		<0.001015
9/23/2019			
9/24/2019	<0.001015		<0.001015
9/25/2019			
3/16/2020			
3/18/2020	<0.001015		
3/24/2020			<0.001015
3/25/2020		<0.001015	
5/12/2020			
9/21/2020			
9/22/2020		<0.001015	<0.001015
9/23/2020	<0.001015		
2/1/2021			
2/2/2021			
2/3/2021		0.000212 (J)	
2/8/2021	0.000296 (J)		0.000258 (J)
2/9/2021			
2/10/2021			

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.001015	<0.001015							
9/19/2016	<0.001015								
9/21/2016		0.00233 (J)							
10/24/2016	<0.001015								
10/25/2016		0.00204 (J)							
12/13/2016	<0.001015								
12/14/2016		<0.001015							
2/8/2017	<0.001015	<0.001015							
3/28/2017		<0.001015							
3/30/2017	<0.001015								
4/26/2017	<0.001015	<0.001015							
6/6/2017	<0.001015	<0.001015							
2/20/2018		0.00219 (J)							
2/21/2018	<0.001015								
5/15/2018		<0.001015							
5/16/2018	<0.001015								
10/16/2018	<0.001015	<0.001015							
2/20/2019			<0.001015						
2/26/2019				<0.001015					
2/27/2019						<0.001015		<0.001015	
3/13/2019							<0.001015		
4/17/2019	<0.001015	<0.001015							
9/23/2019			<0.001015			0.00295 (J)			
9/24/2019		<0.001015		<0.001015					<0.001015
9/25/2019	<0.001015						<0.001015		
3/16/2020							<0.001015		
3/17/2020			<0.001015						
3/18/2020		<0.001015		<0.001015					
3/23/2020			<0.001015						
3/24/2020					<0.001015				
3/25/2020	<0.001015					0.00547 (J)			<0.001015
5/12/2020							0.00281 (J)		
5/13/2020	<0.001015								
9/17/2020			<0.001015	<0.001015	<0.001015				
9/21/2020						0.00804 (J)			
9/22/2020	<0.001015						<0.001015		<0.001015
9/23/2020		<0.001015	<0.001015						
2/1/2021	0.000505 (J)								
2/2/2021					0.000382 (J)				
2/3/2021				0.000222 (J)					<0.001015
2/8/2021		0.000705 (J)							
2/9/2021			0.000218 (J)			<0.001015			
2/10/2021					<0.001015				
2/17/2021							0.000352 (J)		

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.001015	0.00264 (J)	
3/23/2020			
3/24/2020			<0.001015
3/25/2020			
5/12/2020			
5/13/2020	<0.001015		
9/17/2020			
9/21/2020	<0.001015		<0.001015
9/22/2020		<0.001015	
9/23/2020			
2/1/2021		0.000345 (J)	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.001015
2/17/2021	0.000418 (J)		

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.001015							
3/17/2020	<0.001015		<0.001015	<0.001015					
3/18/2020							<0.001015		
3/24/2020					<0.001015			<0.001015	
5/12/2020		<0.001015	<0.001015						
5/13/2020	<0.001015			<0.001015					
8/27/2020									
9/15/2020	<0.001015								
9/16/2020		<0.001015	<0.001015						
9/17/2020				<0.001015			<0.001015		
9/22/2020					<0.001015	<0.001015		<0.001015	<0.001015
2/2/2021						0.000222 (J)			
2/3/2021	0.000207 (J)	0.000397 (J)						0.000298 (J)	
2/4/2021			0.000211 (J)						
2/8/2021							0.000235 (J)		
2/9/2021					<0.001015				
2/17/2021				0.000271 (J)					0.000219 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.001015	<0.001015
9/20/2016		<0.001015	<0.001015
10/24/2016		<0.001015	
10/26/2016			<0.001015
12/12/2016		<0.001015	<0.001015
2/6/2017		<0.001015	<0.001015
3/27/2017		<0.001015	<0.001015
4/24/2017		<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015
2/19/2018		<0.001015	<0.001015
5/14/2018		<0.001015	<0.001015
10/15/2018		<0.001015	<0.001015
4/16/2019		<0.001015	<0.001015
9/23/2019		<0.001015	<0.001015
3/16/2020			
3/17/2020		<0.001015	<0.001015
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.001015		
9/15/2020	<0.001015		
9/16/2020			<0.001015
9/17/2020		<0.001015	
9/22/2020			
2/2/2021			
2/3/2021	0.000255 (J)	0.000264 (J)	0.000268 (J)
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.001015							
8/3/2016			<0.001015						
9/21/2016		<0.001015	0.00266 (J)						
10/24/2016		0.00216 (J)							
10/25/2016			<0.001015						
12/12/2016		<0.001015							
12/13/2016			<0.001015						
2/6/2017		<0.001015	<0.001015						
3/28/2017		<0.001015	0.00322 (J)						
4/24/2017		<0.001015	<0.001015						
6/7/2017		<0.001015	0.00227 (J)						
2/19/2018		<0.001015	<0.001015						
5/15/2018		<0.001015	<0.001015						
10/15/2018		<0.001015							
10/16/2018			<0.001015						
4/16/2019			<0.001015						
4/23/2019		0.00435 (J)							
9/24/2019		<0.001015	<0.001015						
3/17/2020		0.0076 (J)							
3/18/2020			<0.001015						
3/23/2020				<0.001015					
3/24/2020					<0.001015		<0.001015		
3/25/2020						<0.001015			
9/8/2020	<0.001015								
9/15/2020	<0.001015								
9/16/2020		0.00482 (J)							
9/17/2020					<0.001015		<0.001015		
9/21/2020			<0.001015						
9/22/2020				<0.001015		<0.001015			
2/2/2021		0.00435	0.000389 (J)	0.000228 (J)			<0.001015		
2/3/2021	0.000274 (J)								
2/8/2021								<0.001015	
2/10/2021						<0.001015			
2/17/2021					<0.001015				0.000326 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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				<0.000203		<0.000203		<0.000203	
8/2/2016			<0.000203						
8/3/2016	<0.000203								
9/19/2016						<0.000203		<0.000203	
9/20/2016	<0.000203		<0.000203	<0.000203					
9/21/2016									
10/24/2016								<0.000203	
10/25/2016	<0.000203		<0.000203	<0.000203		<0.000203			
12/12/2016									
12/13/2016	<0.000203		<0.000203			<0.000203		<0.000203	
12/14/2016				<0.000203					
2/6/2017								<0.000203	
2/7/2017									
2/8/2017	<0.000203		<0.000203	<0.000203		<0.000203			
3/27/2017								<0.000203	
3/28/2017				<0.000203					
3/29/2017	<0.000203		<0.000203			<0.000203			
4/24/2017								<0.000203	
4/26/2017	<0.000203		<0.000203	<0.000203		<0.000203			
6/5/2017								<0.000203	
6/6/2017				<0.000203		<0.000203			
6/7/2017	<0.000203		<0.000203						
2/19/2018								<0.000203	
2/20/2018	<0.000203		<0.000203	<0.000203					
2/21/2018						<0.000203			
5/15/2018	<0.000203		<0.000203	<0.000203				<0.000203	
5/16/2018						<0.000203			
10/15/2018				<0.000203				<0.000203	
10/16/2018	<0.000203								
10/17/2018			<0.000203			<0.000203			
2/20/2019									<0.000203
2/21/2019		<0.000203							
2/26/2019									
4/16/2019	<0.000203		<0.000203						
4/17/2019				<0.000203		<0.000203		<0.000203	
9/23/2019								<0.000203	
9/24/2019				<0.000203		<0.000203			<0.000203
9/25/2019	<0.000203	<0.000203							
3/16/2020								<0.000203	
3/18/2020	<0.000203			<0.000203	<0.000203				
3/24/2020		0.00277 (J)				<0.000203			
3/25/2020									<0.000203
5/12/2020								<0.000203	
9/21/2020					<0.000203		<0.000203	<0.000203	
9/22/2020						<0.000203			
9/23/2020	<0.000203	<0.000203		<0.000203					<0.000203
2/1/2021	<0.000203	0.00129							
2/2/2021								0.000102 (J)	<0.000203
2/3/2021									
2/8/2021									
2/9/2021				<0.000203	<0.000203				
2/10/2021						0.000252	<0.000203		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.000203
8/2/2016	<0.000203		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.000203		<0.000203
10/24/2016	<0.000203		<0.000203
10/25/2016			
12/12/2016	<0.000203		
12/13/2016			<0.000203
12/14/2016			
2/6/2017			
2/7/2017			<0.000203
2/8/2017	<0.000203		
3/27/2017			
3/28/2017	<0.000203		<0.000203
3/29/2017			
4/24/2017			
4/26/2017	<0.000203		<0.000203
6/5/2017			
6/6/2017	<0.000203		<0.000203
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.000203		<0.000203
5/15/2018			
5/16/2018	<0.000203		<0.000203
10/15/2018			
10/16/2018	<0.000203		<0.000203
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.000203	
4/16/2019			
4/17/2019	<0.000203		<0.000203
9/23/2019			
9/24/2019	<0.000203		<0.000203
9/25/2019			
3/16/2020			
3/18/2020	<0.000203		
3/24/2020			<0.000203
3/25/2020		<0.000203	
5/12/2020			
9/21/2020			
9/22/2020		<0.000203	<0.000203
9/23/2020	<0.000203		
2/1/2021			
2/2/2021			
2/3/2021		<0.000203	
2/8/2021	<0.000203		<0.000203
2/9/2021			
2/10/2021			

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.000203	<0.000203							
9/19/2016	<0.000203								
9/21/2016		<0.000203							
10/24/2016	<0.000203								
10/25/2016		<0.000203							
12/13/2016	<0.000203								
12/14/2016		<0.000203							
2/8/2017	<0.000203	<0.000203							
3/28/2017		<0.000203							
3/30/2017	<0.000203								
4/26/2017	<0.000203	<0.000203							
6/6/2017	<0.000203	<0.000203							
2/20/2018		<0.000203							
2/21/2018	<0.000203								
5/15/2018		<0.000203							
5/16/2018	<0.000203								
10/16/2018	<0.000203	<0.000203							
2/20/2019				<0.000203					
2/26/2019					<0.000203				
2/27/2019							<0.000203		<0.000203
3/13/2019								<0.000203	
4/17/2019	<0.000203	<0.000203							
9/23/2019				<0.000203			<0.000203		
9/24/2019		<0.000203			<0.000203				<0.000203
9/25/2019	<0.000203							<0.000203	
3/16/2020								<0.000203	
3/17/2020				<0.000203					
3/18/2020		<0.000203			<0.000203				
3/23/2020			<0.000203						
3/24/2020						<0.000203			
3/25/2020	<0.000203						0.00207 (J)		<0.000203
5/12/2020								<0.000203	
5/13/2020	<0.000203								
9/17/2020				<0.000203	<0.000203	<0.000203			
9/21/2020							0.00357 (J)		
9/22/2020	<0.000203							<0.000203	<0.000203
9/23/2020		<0.000203	<0.000203						
2/1/2021	<0.000203								
2/2/2021					0.000192 (J)				
2/3/2021				0.000512					<0.000203
2/8/2021		<0.000203							
2/9/2021			<0.000203				<0.000203		
2/10/2021						<0.000203			
2/17/2021								<0.000203	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

Date	GS-AP-MW-30HA	GS-AP-MW-31H	GS-AP-MW-32H
8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.000203	<0.000203	
3/23/2020			
3/24/2020			<0.000203
3/25/2020			
5/12/2020			
5/13/2020	<0.000203		
9/17/2020			
9/21/2020	<0.000203		<0.000203
9/22/2020		<0.000203	
9/23/2020		<0.000203	
2/1/2021		<0.000203	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.000203
2/17/2021	0.00016 (J)		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.000203							
3/17/2020	<0.000203		<0.000203	<0.000203					
3/18/2020							<0.000203		
3/24/2020					<0.000203			0.00218 (J)	
5/12/2020		<0.000203	<0.000203						
5/13/2020	<0.000203			<0.000203					
8/27/2020									
9/15/2020	<0.000203								
9/16/2020		<0.000203	<0.000203						
9/17/2020				<0.000203			<0.000203		
9/22/2020					<0.000203	0.0027 (J)		<0.000203	<0.000203
2/2/2021						0.002			
2/3/2021	<0.000203	<0.000203						0.000752	
2/4/2021			<0.000203						
2/8/2021							0.000585		
2/9/2021					<0.000203				
2/17/2021				0.000148 (J)					<0.000203

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.000203	<0.000203
9/20/2016		<0.000203	<0.000203
10/24/2016		<0.000203	
10/26/2016			<0.000203
12/12/2016		<0.000203	0.00212 (J)
2/6/2017		<0.000203	0.00247 (J)
3/27/2017		<0.000203	0.00224 (J)
4/24/2017		<0.000203	<0.000203
6/6/2017		<0.000203	0.00222 (J)
2/19/2018		<0.000203	<0.000203
5/14/2018		<0.000203	<0.000203
10/15/2018		<0.000203	<0.000203
4/16/2019		<0.000203	<0.000203
9/23/2019		<0.000203	<0.000203
3/16/2020			
3/17/2020		<0.000203	<0.000203
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.000203		
9/15/2020	<0.000203		
9/16/2020			<0.000203
9/17/2020		<0.000203	
9/22/2020			
2/2/2021			
2/3/2021	<0.000203	<0.000203	0.000663
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.000203							
8/3/2016			0.0026 (J)						
9/21/2016		<0.000203	0.00362 (J)						
10/24/2016		<0.000203							
10/25/2016			0.00305 (J)						
12/12/2016		<0.000203							
12/13/2016			<0.000203						
2/6/2017		<0.000203	0.00308 (J)						
3/28/2017		<0.000203	<0.000203						
4/24/2017		<0.000203	<0.000203						
6/7/2017		<0.000203	<0.000203						
2/19/2018		<0.000203	<0.000203						
5/15/2018		<0.000203	<0.000203						
10/15/2018		<0.000203							
10/16/2018			<0.000203						
4/16/2019			<0.000203						
4/23/2019		0.00231 (J)							
9/24/2019		<0.000203	0.00234 (J)						
3/17/2020		0.00476 (J)							
3/18/2020			<0.000203						
3/23/2020				<0.000203					
3/24/2020					<0.000203		<0.000203		
3/25/2020						0.00409 (J)			
9/8/2020	<0.000203								
9/15/2020	<0.000203								
9/16/2020		0.00301 (J)							
9/17/2020					<0.000203		<0.000203		
9/21/2020			<0.000203						
9/22/2020				<0.000203		0.00226 (J)			
2/2/2021		0.00248	0.000384	<0.000203			<0.000203		
2/3/2021	8.19E-05 (J)								
2/8/2021								0.00175	
2/10/2021						0.00443			
2/17/2021					<0.000203				<0.000203

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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			
12/12/2016									
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)			
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)	
3/18/2020	0.605			0.939	0.566 (U)				
3/24/2020		0.877 (U)				0.636			
3/25/2020									0.0656 (U)
5/12/2020								0.0339 (U)	
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)
2/3/2021									
2/8/2021									
2/9/2021				0.442 (U)	0.55 (U)				
2/10/2021						0.285 (U)	0.63 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			0.697 (U)
8/2/2016	0.665		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	0.801		1.79
10/24/2016	0.809		1.53
10/25/2016			
12/12/2016	0.628 (U)		
12/13/2016			0.758
12/14/2016			
2/6/2017			
2/7/2017			0.473
2/8/2017	-0.0851 (U)		
3/27/2017			
3/28/2017	0.0973 (U)		0.0705 (U)
3/29/2017			
4/24/2017			
4/26/2017	0.388 (U)		0.238 (U)
6/5/2017			
6/6/2017	0.0674 (U)		0.909
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	0.418 (U)		0.349 (U)
5/15/2018			
5/16/2018	1.04		1.12
10/15/2018			
10/16/2018	0.779		0.856
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.278 (U)	
4/16/2019			
4/17/2019	0.196 (U)		0.507 (U)
9/23/2019			
9/24/2019	0.375 (U)		0.664
9/25/2019			
3/16/2020			
3/18/2020	0.281 (U)		
3/24/2020			1.07
3/25/2020		-0.00344 (U)	
5/12/2020			
9/21/2020			
9/22/2020		1.02	2.09
9/23/2020	0.888		
2/1/2021			
2/2/2021			
2/3/2021		0.921 (U)	
2/8/2021	0.647 (U)		0.947 (U)
2/9/2021			
2/10/2021			

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	0.274 (U)	0.665							
9/19/2016	0.0478 (U)								
9/21/2016		0.532 (U)							
10/24/2016	1.41								
10/25/2016		0.601							
12/13/2016	0.733								
12/14/2016		1.02							
2/8/2017	0.0206 (U)	-0.074 (U)							
3/28/2017		0.3 (U)							
3/30/2017	0.122 (U)								
4/26/2017	0.397 (U)	0.982 (U)							
6/6/2017	0.0873 (U)	0.312 (U)							
2/20/2018		0.321 (U)							
2/21/2018	0.562								
5/15/2018		1.7							
5/16/2018	1.44								
10/16/2018	0.736	0.586							
2/20/2019				0.0759 (U)					
2/26/2019					0.9				
2/27/2019							0.492		0.556
3/13/2019								0.824	
4/17/2019	0.0905 (U)	0.47 (U)							
9/23/2019				0.00709 (U)			0.404 (U)		
9/24/2019		1.08			1.23				1.09
9/25/2019	0.537 (U)							0.648 (U)	
3/16/2020								0.762 (U)	
3/17/2020				0.989					
3/18/2020		0.732			0.788				
3/23/2020			0.982						
3/24/2020						-0.00194 (U)			
3/25/2020	4						0.707 (U)		0.036 (U)
5/12/2020								0.425 (U)	
5/13/2020	0.289 (U)								
9/17/2020				0.66 (U)	0.298 (U)	-0.369 (U)			
9/21/2020							2.05		
9/22/2020	0.712							1.02	0.591 (U)
9/23/2020		0.468 (U)	0.563 (U)						
2/1/2021	0.518 (U)								
2/2/2021					1.03 (U)				
2/3/2021				0.767 (U)					0.102 (U)
2/8/2021		0.667 (U)							
2/9/2021			0.867 (U)				0.674 (U)		
2/10/2021						0.422 (U)			
2/17/2021								0.911 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	2.26	0.0549 (U)	
3/23/2020			
3/24/2020			0.313 (U)
3/25/2020			
5/12/2020			
5/13/2020	0.604		
9/17/2020			
9/21/2020	1.1		0.484 (U)
9/22/2020		0.912	
9/23/2020			
2/1/2021		0.189 (U)	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			0.546 (U)
2/17/2021	0.902 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		-0.085 (U)							
3/17/2020	2.14		7.32	4.33					
3/18/2020							0.64		
3/24/2020					0.862			0.0821 (U)	
5/12/2020		0.345 (U)	1.02						
5/13/2020	0.415 (U)								
8/27/2020									
9/15/2020	-0.106 (U)								
9/16/2020		0.286 (U)	0.435 (U)						
9/17/2020							0.14 (U)		
9/22/2020					1.1	1.91		0.36 (U)	0.0466 (U)
2/2/2021						0.369 (U)			
2/3/2021	0.313 (U)	0.485 (U)						0.475 (U)	
2/4/2021			0.527 (U)						
2/8/2021							0.409 (U)		
2/9/2021					0.746 (U)				
2/17/2021				0.322 (U)					0.629 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		0.42 (U)	1.38
9/20/2016		1.13	1.3
10/24/2016		0.327 (U)	
10/26/2016			0.721 (U)
12/12/2016		1.26	1.36
2/6/2017		0.532	0.702
3/27/2017		0.334 (U)	0.325 (U)
4/24/2017		0.492	0.436 (U)
6/6/2017		0.156 (U)	0.592
2/19/2018		0.283 (U)	0.776
5/14/2018		0.083 (U)	-0.169 (U)
10/15/2018		0.656	0.792
4/16/2019		0.528	1.11
9/23/2019		0.677	1.06
3/16/2020			
3/17/2020		0.629	0.351 (U)
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.798		
9/15/2020	0.311 (U)		
9/16/2020			1.05
9/17/2020		0.32 (U)	
9/22/2020			
2/2/2021			
2/3/2021	0.145 (U)	0.647 (U)	0.489 (U)
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		0.87							
8/3/2016			0.299 (U)						
9/21/2016		0.107 (U)	0.835						
10/24/2016		0.337 (U)							
10/25/2016			0.0629 (U)						
12/12/2016		0.803							
12/13/2016			0.547						
2/6/2017		-0.0165 (U)	0.251 (U)						
3/28/2017		0.00697 (U)	-0.109 (U)						
4/24/2017		0.672	0.293 (U)						
6/7/2017		0.096 (U)	0.529						
2/19/2018		0.207 (U)	0.497						
5/15/2018		0.0311 (U)	-0.601 (U)						
10/15/2018		0.309 (U)							
10/16/2018			0.2 (U)						
4/16/2019			0.733						
4/23/2019		0.894							
9/24/2019		0.618 (U)	0.753						
3/17/2020		1.2							
3/18/2020			0.465 (U)						
3/23/2020				0.156 (U)					
3/24/2020					0.847		0.878		
3/25/2020						0.13 (U)			
9/8/2020	-0.0377 (U)								
9/15/2020	1.25								
9/16/2020		1.74							
9/17/2020					0.438 (U)		0.896		
9/21/2020			1.25						
9/22/2020					0.536 (U)	0.96			
2/2/2021		0.373 (U)	0.223 (U)	0.154 (U)			1.01 (U)		
2/3/2021	0.2 (U)								
2/8/2021								0.49 (U)	
2/10/2021						0.773 (U)			
2/17/2021					0.753 (U)				0.331 (U)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
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 ...
2/9/2021			0.591		0.329				
2/10/2021						0.103	0.529		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			0.385
8/2/2016	0.219 (J)		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	0.213 (J)		0.303
10/24/2016	0.141 (J)		0.24 (J)
10/25/2016			
12/12/2016	0.206 (J)		
12/13/2016			0.188 (J)
12/14/2016			
2/6/2017			
2/7/2017			0.38
2/8/2017	0.34		
3/27/2017			
3/28/2017	0.36		0.32
3/29/2017			
4/24/2017			
4/26/2017	0.31		0.31
6/5/2017			
6/6/2017	0.29		0.31
6/7/2017			
8/22/2017			0.35
8/23/2017	0.34		
2/19/2018			
2/20/2018			
2/21/2018	0.46		0.39
5/15/2018			
5/16/2018	0.43		0.36
10/15/2018			
10/16/2018	0.64		0.37
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.165	
4/16/2019			
4/17/2019	0.632		0.27
9/23/2019			
9/24/2019	0.578		0.307
9/25/2019			
3/16/2020			
3/18/2020	0.437		
3/24/2020			0.327
3/25/2020		0.353	
5/12/2020			
9/21/2020			
9/22/2020		0.368	0.339
9/23/2020	0.575		
2/1/2021			
2/2/2021			
2/3/2021		0.334	
2/8/2021	0.485		0.319

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-18 GS-AP-MW-18V GS-AP-MW-19

2/9/2021
2/10/2021

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
8/21/2017			
8/23/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	0.634	0.15	
3/23/2020			
3/24/2020			0.18
3/25/2020			
5/12/2020			
5/13/2020	0.833		
9/17/2020			
9/21/2020	0.872		0.202
9/22/2020		0.148	
9/23/2020			
2/1/2021		0.176	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			0.134
2/17/2021	0.884		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
8/21/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		0.338							
3/17/2020	0.202		0.166	0.214					
3/18/2020							0.165		
3/24/2020					0.291			0.13	
5/12/2020		0.37	0.167						
5/13/2020	0.191			0.224					
8/27/2020									
9/15/2020	0.188								
9/16/2020		0.364	0.162						
9/17/2020				0.209			0.16		
9/22/2020					0.28	0.114		0.121	0.216
2/2/2021						0.123			
2/3/2021	0.178	0.298						0.131	
2/4/2021			0.152						
2/8/2021							0.138		
2/9/2021					0.243				
2/17/2021				0.22					0.174

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		0.127 (J)	0.099 (J)
9/20/2016		0.087 (J)	0.074 (J)
10/24/2016		0.019 (J)	
10/26/2016			0.032 (J)
12/12/2016		0.043 (J)	0.034 (J)
2/6/2017		0.11	0.06 (J)
3/27/2017		0.12	0.07 (J)
4/24/2017		0.11	0.08 (J)
6/6/2017		0.12	0.09 (J)
8/21/2017		0.15	0.1
2/19/2018		0.13	0.1
5/14/2018		0.13	0.13
10/15/2018		0.16	0.14
4/16/2019		0.156	0.147
9/23/2019		0.132	0.142
3/16/2020			
3/17/2020		0.132	0.231
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.174		
9/15/2020	0.221		
9/16/2020			0.308
9/17/2020		0.133	
9/22/2020			
2/2/2021			
2/3/2021	0.181	0.135	0.195
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		0.098 (J)							
8/3/2016			0.125 (J)						
9/21/2016		0.061 (J)	0.098 (J)						
10/24/2016		<0.3							
10/25/2016			0.025 (J)						
12/12/2016		0.01 (J)							
12/13/2016			0.045 (J)						
2/6/2017		0.07 (J)	0.1						
3/28/2017		0.07 (J)	0.08 (J)						
4/24/2017		0.08 (J)	0.09 (J)						
6/7/2017		0.09 (J)	0.08 (J)						
8/21/2017		0.09 (J)	0.08 (J)						
2/19/2018		0.09 (J)	0.08 (J)						
5/15/2018		0.09 (J)	0.1						
10/15/2018		0.11							
10/16/2018			0.09 (J)						
4/16/2019			0.143						
4/23/2019		0.111							
9/24/2019		0.106	0.128						
3/17/2020		0.107							
3/18/2020			0.108						
3/23/2020				0.187					
3/24/2020					0.228		0.387		
3/25/2020						0.396			
9/8/2020	4.46								
9/15/2020	4.59								
9/16/2020		0.126							
9/17/2020					0.237		0.402		
9/21/2020			0.125						
9/22/2020				0.174		0.392			
2/2/2021		0.124	0.114	0.183			0.389		
2/3/2021	4.28								
2/8/2021								0.152	
2/10/2021						0.368			
2/17/2021				0.219					0.1

Time Series

Constituent: Lead (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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				<0.000203		<0.000203		<0.000203	
8/2/2016			<0.000203						
8/3/2016	<0.000203								
9/19/2016						<0.000203		<0.000203	
9/20/2016	<0.000203		<0.000203	<0.000203					
9/21/2016									
10/24/2016								<0.000203	
10/25/2016	<0.000203		<0.000203	<0.000203		<0.000203			
12/12/2016									
12/13/2016	<0.000203		<0.000203			<0.000203		<0.000203	
12/14/2016				<0.000203					
2/6/2017								<0.000203	
2/7/2017									
2/8/2017	<0.000203		<0.000203	<0.000203		<0.000203			
3/27/2017								<0.000203	
3/28/2017				<0.000203					
3/29/2017	<0.000203		<0.000203			<0.000203			
4/24/2017								<0.000203	
4/26/2017	<0.000203		<0.000203	<0.000203		<0.000203			
6/5/2017								<0.000203	
6/6/2017				<0.000203		<0.000203			
6/7/2017	<0.000203		<0.000203						
2/19/2018								<0.000203	
2/20/2018	<0.000203		<0.000203	<0.000203					
2/21/2018						<0.000203			
5/15/2018	<0.000203		<0.000203	<0.000203				<0.000203	
5/16/2018						<0.000203			
10/15/2018				<0.000203				<0.000203	
10/16/2018	<0.000203								
10/17/2018			<0.000203			<0.000203			
2/20/2019									0.00189 (J)
2/21/2019		<0.000203							
2/26/2019									
4/16/2019	<0.000203		<0.000203						
4/17/2019				<0.000203		<0.000203		<0.000203	
9/23/2019								<0.000203	
9/24/2019				<0.000203		<0.000203			<0.000203
9/25/2019	<0.000203	<0.000203							
3/16/2020								<0.000203	
3/18/2020	<0.000203			<0.000203	<0.000203				
3/24/2020		0.00279 (J)				<0.000203			
3/25/2020									<0.000203
5/12/2020								<0.000203	
9/21/2020					<0.000203		<0.000203	<0.000203	
9/22/2020						<0.000203			
9/23/2020	<0.000203	0.0014 (J)		<0.000203					<0.000203
2/1/2021	<0.000203	0.0013							
2/2/2021								0.000175 (J)	<0.000203
2/3/2021									
2/8/2021									
2/9/2021				8.74E-05 (J)	<0.000203				
2/10/2021						0.000873	0.000105 (J)		

Time Series

Constituent: Lead (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.000203
8/2/2016	<0.000203		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.000203		<0.000203
10/24/2016	<0.000203		<0.000203
10/25/2016			
12/12/2016	<0.000203		
12/13/2016			<0.000203
12/14/2016			
2/6/2017			
2/7/2017			<0.000203
2/8/2017	<0.000203		
3/27/2017			
3/28/2017	<0.000203		<0.000203
3/29/2017			
4/24/2017			
4/26/2017	<0.000203		<0.000203
6/5/2017			
6/6/2017	<0.000203		<0.000203
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.000203		<0.000203
5/15/2018			
5/16/2018	<0.000203		<0.000203
10/15/2018			
10/16/2018	<0.000203		<0.000203
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.000203	
4/16/2019			
4/17/2019	<0.000203		<0.000203
9/23/2019			
9/24/2019	<0.000203		<0.000203
9/25/2019			
3/16/2020			
3/18/2020	<0.000203		
3/24/2020			<0.000203
3/25/2020		<0.000203	
5/12/2020			
9/21/2020			
9/22/2020		<0.000203	<0.000203
9/23/2020	<0.000203		
2/1/2021			
2/2/2021			
2/3/2021		<0.000203	
2/8/2021	<0.000203		<0.000203
2/9/2021			
2/10/2021			

Time Series

Constituent: Lead (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.000203	<0.000203							
9/19/2016	<0.000203								
9/21/2016		<0.000203							
10/24/2016	<0.000203								
10/25/2016		<0.000203							
12/13/2016	<0.000203								
12/14/2016		<0.000203							
2/8/2017	<0.000203	<0.000203							
3/28/2017		<0.000203							
3/30/2017	<0.000203								
4/26/2017	<0.000203	<0.000203							
6/6/2017	<0.000203	<0.000203							
2/20/2018		<0.000203							
2/21/2018	<0.000203								
5/15/2018		<0.000203							
5/16/2018	<0.000203								
10/16/2018	<0.000203	<0.000203							
2/20/2019				<0.000203					
2/26/2019					<0.000203				
2/27/2019							<0.000203		<0.000203
3/13/2019								0.00208 (J)	
4/17/2019	<0.000203	<0.000203							
9/23/2019				<0.000203			0.00109 (J)		
9/24/2019		<0.000203			<0.000203				<0.000203
9/25/2019	<0.000203							<0.000203	
3/16/2020								<0.000203	
3/17/2020				<0.000203					
3/18/2020		<0.000203			<0.000203				
3/23/2020			<0.000203						
3/24/2020						<0.000203			
3/25/2020	<0.000203						0.0019 (J)		<0.000203
5/12/2020								<0.000203	
5/13/2020	<0.000203								
9/17/2020				<0.000203	<0.000203	<0.000203			
9/21/2020							0.00309 (J)		
9/22/2020	<0.000203							<0.000203	<0.000203
9/23/2020		<0.000203	<0.000203						
2/1/2021	<0.000203								
2/2/2021					<0.000203				
2/3/2021				<0.000203					<0.000203
2/8/2021		<0.000203							
2/9/2021			<0.000203				<0.000203		
2/10/2021						<0.000203			
2/17/2021								<0.000203	

Time Series

Constituent: Lead (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.000203	<0.000203	
3/23/2020			
3/24/2020			<0.000203
3/25/2020			
5/12/2020			
5/13/2020	<0.000203		
9/17/2020			
9/21/2020	<0.000203		<0.000203
9/22/2020		<0.000203	
9/23/2020			
2/1/2021		0.000102 (J)	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.000203
2/17/2021	0.00028		

Time Series

Constituent: Lead (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.000203							
3/17/2020	<0.000203		<0.000203	<0.000203					
3/18/2020							<0.000203		
3/24/2020					<0.000203			<0.000203	
5/12/2020		<0.000203	<0.000203						
5/13/2020	<0.000203			<0.000203					
8/27/2020									
9/15/2020	<0.000203								
9/16/2020		<0.000203	<0.000203						
9/17/2020				<0.000203			<0.000203		
9/22/2020					<0.000203	<0.000203		<0.000203	<0.000203
2/2/2021						<0.000203			
2/3/2021	<0.000203	<0.000203						<0.000203	
2/4/2021			<0.000203						
2/8/2021							<0.000203		
2/9/2021					8.23E-05 (J)				
2/17/2021				8.8E-05 (J)					0.000328

Time Series

Constituent: Lead (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.000203	<0.000203
9/20/2016		<0.000203	<0.000203
10/24/2016		<0.000203	
10/26/2016			<0.000203
12/12/2016		<0.000203	<0.000203
2/6/2017		<0.000203	<0.000203
3/27/2017		<0.000203	<0.000203
4/24/2017		<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203
2/19/2018		<0.000203	<0.000203
5/14/2018		<0.000203	<0.000203
10/15/2018		<0.000203	<0.000203
4/16/2019		<0.000203	<0.000203
9/23/2019		<0.000203	<0.000203
3/16/2020			
3/17/2020		<0.000203	<0.000203
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.000203		
9/15/2020	<0.000203		
9/16/2020			<0.000203
9/17/2020		<0.000203	
9/22/2020			
2/2/2021			
2/3/2021	<0.000203	<0.000203	<0.000203
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Lead (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		0.00279 (J)							
8/3/2016			<0.000203						
9/21/2016		0.0024 (J)	<0.000203						
10/24/2016		<0.000203							
10/25/2016			<0.000203						
12/12/2016		<0.000203							
12/13/2016			<0.000203						
2/6/2017		<0.000203	<0.000203						
3/28/2017		<0.000203	<0.000203						
4/24/2017		<0.000203	<0.000203						
6/7/2017		<0.000203	<0.000203						
2/19/2018		<0.000203	<0.000203						
5/15/2018		<0.000203	<0.000203						
10/15/2018		<0.000203							
10/16/2018			<0.000203						
4/16/2019			<0.000203						
4/23/2019		0.00207 (J)							
9/24/2019		<0.000203	<0.000203						
3/17/2020		0.00386 (J)							
3/18/2020			<0.000203						
3/23/2020				<0.000203					
3/24/2020					<0.000203		<0.000203		
3/25/2020						<0.000203			
9/8/2020	<0.000203								
9/15/2020	<0.000203								
9/16/2020		0.00295 (J)							
9/17/2020					<0.000203		<0.000203		
9/21/2020			<0.000203						
9/22/2020				<0.000203		<0.000203			
2/2/2021		0.00243	8.09E-05 (J)	<0.000203			<0.000203		
2/3/2021	0.000155 (J)								
2/8/2021								<0.000203	
2/10/2021						<0.000203			
2/17/2021					0.000148 (J)				<0.000203

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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)			
12/12/2016									
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)			
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	
3/18/2020	0.0297			0.378	0.208				
3/24/2020		0.0462				0.035			
3/25/2020									0.0646
5/12/2020								0.0602	
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
2/3/2021									
2/8/2021									
2/9/2021				0.493	0.122				
2/10/2021						0.0376	0.103		

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			0.0252 (J)
8/2/2016	0.196		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	0.25		0.0223 (J)
10/24/2016	0.293		0.0247 (J)
10/25/2016			
12/12/2016	0.284 (J)		
12/13/2016			0.0312 (J)
12/14/2016			
2/6/2017			
2/7/2017			0.0406 (J)
2/8/2017	0.371		
3/27/2017			
3/28/2017	0.316		0.0309 (J)
3/29/2017			
4/24/2017			
4/26/2017	0.24		0.0267 (J)
6/5/2017			
6/6/2017	0.262		0.0311 (J)
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	0.189		0.0472 (J)
5/15/2018			
5/16/2018	0.172		0.0391 (J)
10/15/2018			
10/16/2018	0.314		0.0406
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.0423	
4/16/2019			
4/17/2019	0.0942		0.0429
9/23/2019			
9/24/2019	0.114		0.0392
9/25/2019			
3/16/2020			
3/18/2020	0.116		
3/24/2020			0.0417
3/25/2020		0.0244	
5/12/2020			
9/21/2020			
9/22/2020		0.0254	0.0435
9/23/2020	0.0895		
2/1/2021			
2/2/2021			
2/3/2021		0.0293	
2/8/2021	0.108		0.0368
2/9/2021			
2/10/2021			

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	0.0495 (J)	0.145							
9/19/2016	0.049 (J)								
9/21/2016		0.153							
10/24/2016	0.0488 (J)								
10/25/2016		0.171							
12/13/2016	0.0483 (J)								
12/14/2016		0.182							
2/8/2017	0.0644	0.178							
3/28/2017		0.161							
3/30/2017	0.0597								
4/26/2017	0.0459 (J)	0.126							
6/6/2017	0.0491 (J)	0.135							
2/20/2018		0.158							
2/21/2018	0.0534								
5/15/2018		0.174							
5/16/2018	0.0451 (J)								
10/16/2018	0.0511	0.219							
2/20/2019			0.031						
2/26/2019				0.0282					
2/27/2019						0.0966		0.07	
3/13/2019							0.0625		
4/17/2019	0.0421	0.312							
9/23/2019			0.0324			0.0945			
9/24/2019		0.276		0.0275					0.0509
9/25/2019	0.0457						0.0619		
3/16/2020							0.0627		
3/17/2020			0.0327						
3/18/2020		0.379		0.0264					
3/23/2020			0.146						
3/24/2020					0.0461				
3/25/2020	0.0434					0.0946		0.0528	
5/12/2020							0.0569		
5/13/2020	0.0409								
9/17/2020			0.0333	0.0237	0.0449				
9/21/2020						0.0958			
9/22/2020	0.0395						0.0574	0.0586	
9/23/2020		0.179	0.137						
2/1/2021	0.0445								
2/2/2021				0.0247					
2/3/2021			0.0319						0.0915
2/8/2021		0.239							
2/9/2021			0.124				0.0928		
2/10/2021					0.0579				
2/17/2021							0.0686		

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	0.0528	0.0347	
3/23/2020			
3/24/2020			0.0428
3/25/2020			
5/12/2020			
5/13/2020	0.0536		
9/17/2020			
9/21/2020	0.0494		0.0421
9/22/2020		0.0357	
9/23/2020			
2/1/2021		0.0417	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			0.0471
2/17/2021	0.0548		

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		0.205							
3/17/2020	0.0516		0.074	0.0342					
3/18/2020							0.311		
3/24/2020					0.0632			0.0346	
5/12/2020		0.18	0.0693						
5/13/2020	0.0455			0.0337					
8/27/2020									
9/15/2020	0.0479								
9/16/2020		0.18	0.0685						
9/17/2020				0.035			0.341		
9/22/2020					0.0591	0.0405		0.0333	0.0587
2/2/2021						0.0571			
2/3/2021	0.0534	0.249						0.0356	
2/4/2021			0.0734						
2/8/2021							0.356		
2/9/2021					0.0676				
2/17/2021				0.039					0.0723

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		0.204	<0.02
9/20/2016		0.223	<0.02
10/24/2016		0.243	
10/26/2016			0.0199 (J)
12/12/2016		0.22	<0.02
2/6/2017		0.247	<0.02
3/27/2017		0.263	<0.02
4/24/2017		0.237	<0.02
6/6/2017		0.259	<0.02
2/19/2018		0.213	<0.02
5/14/2018		0.239	0.0238 (J)
10/15/2018		0.236	0.03
4/16/2019		0.267	<0.02
9/23/2019		0.264	0.0105 (J)
3/16/2020			
3/17/2020		0.292	0.0695
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.0411		
9/15/2020	0.0494		
9/16/2020			0.066
9/17/2020		0.299	
9/22/2020			
2/2/2021			
2/3/2021	0.063	0.312	0.0455
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		0.144							
8/3/2016			<0.02						
9/21/2016		0.136	<0.02						
10/24/2016		0.135							
10/25/2016			<0.02						
12/12/2016		0.146							
12/13/2016			<0.02						
2/6/2017		0.182	<0.02						
3/28/2017		0.175	<0.02						
4/24/2017		0.143	<0.02						
6/7/2017		0.152	<0.02						
2/19/2018		0.143	<0.02						
5/15/2018		0.151	<0.02						
10/15/2018		0.155							
10/16/2018			<0.02						
4/16/2019			<0.02						
4/23/2019		0.144							
9/24/2019		0.156	<0.02						
3/17/2020		0.161							
3/18/2020			<0.02						
3/23/2020				0.0309					
3/24/2020					0.0714		0.0734		
3/25/2020						0.109			
9/8/2020	0.138								
9/15/2020	0.136								
9/16/2020		0.16							
9/17/2020					0.073		0.0862		
9/21/2020			<0.02						
9/22/2020				0.0293		0.0789			
2/2/2021		0.183	0.00796 (J)	0.0299			0.0743		
2/3/2021	0.156								
2/8/2021								0.14	
2/10/2021						0.12			
2/17/2021					0.0762				0.0995

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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			
12/12/2016									
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			
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	
3/18/2020	<0.0005			<0.0005	<0.0005				
3/24/2020		<0.0005				<0.0005			
3/25/2020									<0.0005
5/12/2020								<0.0005	
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
2/3/2021									
2/8/2021									
2/9/2021				<0.0005	<0.0005				
2/10/2021						<0.0005	<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.0005
8/2/2016	<0.0005		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.0005		<0.0005
10/24/2016	<0.0005		<0.0005
10/25/2016			
12/12/2016	<0.0005		
12/13/2016			<0.0005
12/14/2016			
2/6/2017			
2/7/2017			<0.0005
2/8/2017	<0.0005		
3/27/2017			
3/28/2017	<0.0005		<0.0005
3/29/2017			
4/24/2017			
4/26/2017	<0.0005		<0.0005
6/5/2017			
6/6/2017	<0.0005		<0.0005
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.0005		<0.0005
5/15/2018			
5/16/2018	<0.0005		<0.0005
10/15/2018			
10/16/2018	<0.0005		<0.0005
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.0005	
4/16/2019			
4/17/2019	<0.0005		<0.0005
9/23/2019			
9/24/2019	<0.0005		<0.0005
9/25/2019			
3/16/2020			
3/18/2020	<0.0005		
3/24/2020			<0.0005
3/25/2020		<0.0005	
5/12/2020			
9/21/2020			
9/22/2020		<0.0005	<0.0005
9/23/2020	<0.0005		
2/1/2021			
2/2/2021			
2/3/2021		<0.0005	
2/8/2021	<0.0005		<0.0005
2/9/2021			
2/10/2021			

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.0005	<0.0005							
9/19/2016	<0.0005								
9/21/2016		<0.0005							
10/24/2016	<0.0005								
10/25/2016		<0.0005							
12/13/2016	<0.0005								
12/14/2016		<0.0005							
2/8/2017	<0.0005	<0.0005							
3/28/2017		<0.0005							
3/30/2017	<0.0005								
4/26/2017	<0.0005	<0.0005							
6/6/2017	<0.0005	<0.0005							
2/20/2018		<0.0005							
2/21/2018	<0.0005								
5/15/2018		<0.0005							
5/16/2018	<0.0005								
10/16/2018	<0.0005	<0.0005							
2/20/2019				<0.0005					
2/26/2019					<0.0005				
2/27/2019							<0.0005		<0.0005
3/13/2019								<0.0005	
4/17/2019	<0.0005	<0.0005							
9/23/2019				<0.0005			<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				<0.0005					
3/18/2020		<0.0005			<0.0005				
3/23/2020			<0.0005						
3/24/2020						<0.0005			
3/25/2020	<0.0005						<0.0005		<0.0005
5/12/2020								<0.0005	
5/13/2020	<0.0005								
9/17/2020				<0.0005	<0.0005	<0.0005			
9/21/2020							<0.0005		
9/22/2020	<0.0005							<0.0005	<0.0005
9/23/2020		<0.0005	<0.0005						
2/1/2021	<0.0005								
2/2/2021					<0.0005				
2/3/2021				<0.0005					<0.0005
2/8/2021		<0.0005							
2/9/2021			<0.0005				<0.0005		
2/10/2021						<0.0005			
2/17/2021								<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.0005	<0.0005	
3/23/2020			
3/24/2020			<0.0005
3/25/2020			
5/12/2020			
5/13/2020	<0.0005		
9/17/2020			
9/21/2020	<0.0005		<0.0005
9/22/2020		<0.0005	
9/23/2020			
2/1/2021		<0.0005	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.0005
2/17/2021	<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.0005							
3/17/2020	<0.0005		<0.0005	<0.0005					
3/18/2020							<0.0005		
3/24/2020					<0.0005			<0.0005	
5/12/2020		<0.0005	<0.0005						
5/13/2020	<0.0005			<0.0005					
8/27/2020									
9/15/2020	<0.0005								
9/16/2020		<0.0005	<0.0005						
9/17/2020				<0.0005			<0.0005		
9/22/2020					<0.0005	<0.0005		<0.0005	<0.0005
2/2/2021						<0.0005			
2/3/2021	<0.0005	<0.0005						<0.0005	
2/4/2021			<0.0005						
2/8/2021							<0.0005		
2/9/2021					<0.0005				
2/17/2021				<0.0005					<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.0005	<0.0005
9/20/2016		<0.0005	<0.0005
10/24/2016		<0.0005	
10/26/2016			<0.0005
12/12/2016		<0.0005	<0.0005
2/6/2017		<0.0005	<0.0005
3/27/2017		<0.0005	<0.0005
4/24/2017		<0.0005	<0.0005
6/6/2017		<0.0005	<0.0005
2/19/2018		<0.0005	<0.0005
5/14/2018		<0.0005	<0.0005
10/15/2018		<0.0005	<0.0005
4/16/2019		<0.0005	<0.0005
9/23/2019		<0.0005	<0.0005
3/16/2020			
3/17/2020		<0.0005	<0.0005
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.0005		
9/15/2020	<0.0005		
9/16/2020			<0.0005
9/17/2020		<0.0005	
9/22/2020			
2/2/2021			
2/3/2021	<0.0005	<0.0005	<0.0005
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.0005							
8/3/2016			<0.0005						
9/21/2016		<0.0005	<0.0005						
10/24/2016		<0.0005							
10/25/2016			<0.0005						
12/12/2016		<0.0005							
12/13/2016			<0.0005						
2/6/2017		<0.0005	<0.0005						
3/28/2017		<0.0005	<0.0005						
4/24/2017		<0.0005	<0.0005						
6/7/2017		<0.0005	<0.0005						
2/19/2018		<0.0005	<0.0005						
5/15/2018		<0.0005	<0.0005						
10/15/2018		<0.0005							
10/16/2018			<0.0005						
4/16/2019			<0.0005						
4/23/2019		<0.0005							
9/24/2019		<0.0005	<0.0005						
3/17/2020		<0.0005							
3/18/2020			<0.0005						
3/23/2020				<0.0005					
3/24/2020					<0.0005		<0.0005		
3/25/2020						<0.0005			
9/8/2020	<0.0005								
9/15/2020	<0.0005								
9/16/2020		<0.0005							
9/17/2020					<0.0005		<0.0005		
9/21/2020			<0.0005						
9/22/2020				<0.0005		<0.0005			
2/2/2021		<0.0005	<0.0005	<0.0005			<0.0005		
2/3/2021	<0.0005								
2/8/2021								<0.0005	
2/10/2021						<0.0005			
2/17/2021				<0.0005					<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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		<0.000203		0.00738 (J)	
8/2/2016			<0.000203						
8/3/2016	0.0269								
9/19/2016						<0.000203		0.00889 (J)	
9/20/2016	0.00762 (J)		<0.000203	0.0683					
9/21/2016									
10/24/2016								0.00819 (J)	
10/25/2016	0.00456 (J)		<0.000203	0.063		<0.000203			
12/12/2016									
12/13/2016	0.00411 (J)		<0.000203			<0.000203		0.0189	
12/14/2016				0.0604					
2/6/2017								0.00852 (J)	
2/7/2017									
2/8/2017	0.00235 (J)		<0.000203	0.0346		<0.000203			
3/27/2017								0.00592 (J)	
3/28/2017				0.0331					
3/29/2017	<0.000203		<0.000203			<0.000203			
4/24/2017								0.00644 (J)	
4/26/2017	<0.000203		<0.000203	0.038		<0.000203			
6/5/2017								0.00537 (J)	
6/6/2017				0.0327		<0.000203			
6/7/2017	<0.000203		<0.000203						
2/19/2018								0.0134	
2/20/2018	<0.000203		<0.000203	0.0362					
2/21/2018						<0.000203			
5/15/2018	<0.000203		<0.000203	0.0344				0.00789 (J)	
5/16/2018						<0.000203			
10/15/2018				0.0525				0.00376 (J)	
10/16/2018	<0.000203								
10/17/2018			<0.000203			<0.000203			
2/20/2019									0.00577 (J)
2/21/2019		0.00253 (J)							
2/26/2019									
4/16/2019	<0.000203		<0.000203						
4/17/2019				0.029		<0.000203		0.00661 (J)	
9/23/2019								0.011	
9/24/2019				0.0597		<0.000203			0.00906 (J)
9/25/2019	<0.000203	0.00942 (J)							
3/16/2020								0.00504 (J)	
3/18/2020	0.00444 (J)			0.0673	0.0327				
3/24/2020		0.00454 (J)				<0.000203			
3/25/2020									0.00508 (J)
5/12/2020								0.00436 (J)	
9/21/2020					0.0538		0.041	0.00776 (J)	
9/22/2020						<0.000203			
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
2/3/2021									
2/8/2021									
2/9/2021				0.0644	0.0522				
2/10/2021						0.00014 (J)	0.0402		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			0.00752 (J)
8/2/2016	0.0516		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	0.0567		0.0117
10/24/2016	0.0517		0.0198
10/25/2016			
12/12/2016	0.0431		
12/13/2016			0.00703 (J)
12/14/2016			
2/6/2017			
2/7/2017			0.0103
2/8/2017	0.0381		
3/27/2017			
3/28/2017	0.0333		0.00599 (J)
3/29/2017			
4/24/2017			
4/26/2017	0.0348		0.00845 (J)
6/5/2017			
6/6/2017	0.0384		0.00624 (J)
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	0.0441		0.00903 (J)
5/15/2018			
5/16/2018	0.0374		0.00515 (J)
10/15/2018			
10/16/2018	0.0425		0.00593 (J)
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		0.00696 (J)	
4/16/2019			
4/17/2019	0.0113		0.00703 (J)
9/23/2019			
9/24/2019	0.0504		0.00562 (J)
9/25/2019			
3/16/2020			
3/18/2020	0.00927 (J)		
3/24/2020			0.00605 (J)
3/25/2020		0.0217	
5/12/2020			
9/21/2020			
9/22/2020		0.0248	0.0063 (J)
9/23/2020	0.044		
2/1/2021			
2/2/2021			
2/3/2021		0.0236	
2/8/2021	0.033		0.00366
2/9/2021			
2/10/2021			

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.000203	0.0365							
9/19/2016	<0.000203								
9/21/2016		0.0362							
10/24/2016	<0.000203								
10/25/2016		0.0326							
12/13/2016	<0.000203								
12/14/2016		0.0345							
2/8/2017	0.00359 (J)	0.0419							
3/28/2017		0.0523							
3/30/2017	0.00485 (J)								
4/26/2017	0.00444 (J)	0.0502							
6/6/2017	0.00489 (J)	0.05							
2/20/2018		0.0966							
2/21/2018	0.0112								
5/15/2018		0.0687							
5/16/2018	0.00547 (J)								
10/16/2018	0.00919 (J)	0.061							
2/20/2019			<0.000203						
2/26/2019				<0.000203					
2/27/2019						0.00286 (J)		<0.000203	
3/13/2019							0.00555 (J)		
4/17/2019	0.00293 (J)	0.0885							
9/23/2019			<0.000203			<0.000203			
9/24/2019		0.0613		<0.000203					0.00424 (J)
9/25/2019	0.00803 (J)						0.00338 (J)		
3/16/2020				<0.000203			0.00463 (J)		
3/17/2020									
3/18/2020		0.102			<0.000203				
3/23/2020			0.117						
3/24/2020						0.0176			
3/25/2020	0.00343 (J)						<0.000203		0.0025 (J)
5/12/2020							0.00644 (J)		
5/13/2020	0.00224 (J)								
9/17/2020			<0.000203	<0.000203	0.0182				
9/21/2020							<0.000203		
9/22/2020	0.00308 (J)						0.00616 (J)	0.0281	
9/23/2020		0.0404	0.12						
2/1/2021	0.00427								
2/2/2021					0.000563				
2/3/2021				0.000902					0.0623
2/8/2021		0.0396							
2/9/2021			0.0983				0.000207		
2/10/2021						0.0158			
2/17/2021								0.00454	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	0.00603 (J)	0.0102	
3/23/2020			
3/24/2020			0.0826
3/25/2020			
5/12/2020			
5/13/2020	0.00519 (J)		
9/17/2020			
9/21/2020	0.00254 (J)		0.0896
9/22/2020		0.00438 (J)	
9/23/2020			
2/1/2021		0.00447	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			0.0889
2/17/2021	0.0019		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		0.00386 (J)							
3/17/2020	<0.000203		0.00222 (J)	0.00571 (J)					
3/18/2020							0.0158		
3/24/2020					0.00445 (J)			<0.000203	
5/12/2020		0.0088 (J)	<0.000203						
5/13/2020	0.00626 (J)			0.00475 (J)					
8/27/2020									
9/15/2020	0.00496 (J)								
9/16/2020		0.00598 (J)	<0.000203						
9/17/2020				0.0105			0.026		
9/22/2020					0.00423 (J)	0.00293 (J)		<0.000203	<0.000203
2/2/2021						0.00257			
2/3/2021	0.00346	0.00753						0.00174	
2/4/2021			0.00273						
2/8/2021							0.0284		
2/9/2021					0.00267				
2/17/2021				0.0054					0.00292

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		0.00372 (J)	<0.000203
9/20/2016		0.00481 (J)	0.00202 (J)
10/24/2016		0.00496 (J)	
10/26/2016			0.00599 (J)
12/12/2016		0.00467 (J)	0.00214 (J)
2/6/2017		0.00468 (J)	<0.000203
3/27/2017		0.00548 (J)	<0.000203
4/24/2017		0.00606 (J)	<0.000203
6/6/2017		0.00545 (J)	<0.000203
2/19/2018		0.00537 (J)	<0.000203
5/14/2018		0.00564 (J)	0.00526 (J)
10/15/2018		0.00538 (J)	0.00644 (J)
4/16/2019		0.00747 (J)	0.00246 (J)
9/23/2019		0.00758 (J)	0.00412 (J)
3/16/2020			
3/17/2020		0.00959 (J)	0.0272
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	0.0071 (J)		
9/15/2020	0.00858 (J)		
9/16/2020			0.0427
9/17/2020		0.00924 (J)	
9/22/2020			
2/2/2021			
2/3/2021	0.00429	0.0095	0.0218
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		0.146							
8/3/2016			<0.000203						
9/21/2016		0.146	<0.000203						
10/24/2016		0.136							
10/25/2016			<0.000203						
12/12/2016		0.14							
12/13/2016			<0.000203						
2/6/2017		0.15	<0.000203						
3/28/2017		0.159	<0.000203						
4/24/2017		0.16	<0.000203						
6/7/2017		0.15	<0.000203						
2/19/2018		0.172	<0.000203						
5/15/2018		0.177	<0.000203						
10/15/2018		0.168							
10/16/2018			<0.000203						
4/16/2019			<0.000203						
4/23/2019		0.185							
9/24/2019		0.178	<0.000203						
3/17/2020		0.193							
3/18/2020			<0.000203						
3/23/2020				<0.000203					
3/24/2020					<0.000203		0.00333 (J)		
3/25/2020						0.00919 (J)			
9/8/2020	0.00317 (J)								
9/15/2020	0.00256 (J)								
9/16/2020		0.215							
9/17/2020					0.00241 (J)		0.00357 (J)		
9/21/2020			<0.000203						
9/22/2020				<0.000203		0.00496 (J)			
2/2/2021		0.202	<0.000203	0.000538			0.00367		
2/3/2021	0.00284								
2/8/2021								0.00288	
2/10/2021						0.00511			
2/17/2021					0.00132				0.0113

Time Series

Constituent: pH (SU) Analysis Run 5/24/2021 1:29 PM View: Descriptive
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 ...
2/9/2021				11.88	9.55				
2/10/2021						7.73	10.37		

Time Series

Constituent: pH (SU) Analysis Run 5/24/2021 1:29 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			8.05
8/2/2016	7.65		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	7.47		8.14
10/24/2016	7.44		8.55
10/25/2016			
12/12/2016	7.39		
12/13/2016			8.08
12/14/2016			
2/6/2017			
2/7/2017			8.61
2/8/2017	7.31		
3/27/2017			
3/28/2017	7.6		7.94
3/29/2017			
4/24/2017			
4/26/2017	7.5		8.26
6/5/2017			
6/6/2017	7.34		8.23
6/7/2017			
8/22/2017			8.1
8/23/2017	7.4		
2/19/2018			
2/20/2018			
2/21/2018	7.44		8.48
5/15/2018			
5/16/2018	7.47		8.12
10/15/2018			
10/16/2018	7.06		8.22
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		7.79	
4/16/2019			
4/17/2019	7.58		8.06
9/23/2019			
9/24/2019	7.49		7.8
9/25/2019			
3/16/2020			
3/18/2020	6.99		
3/24/2020			7.93
3/25/2020		8.19	
5/12/2020			
9/21/2020			
9/22/2020		8.35	8.17
9/23/2020	7.54		
2/1/2021			
2/2/2021			
2/3/2021		8.42	
2/8/2021	7.49		7.89

Time Series

Constituent: pH (SU) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-18 GS-AP-MW-18V GS-AP-MW-19

2/9/2021
2/10/2021

Time Series

Constituent: pH (SU) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
8/21/2017			
8/23/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	7.2	8.73	
3/23/2020			
3/24/2020			8.47
3/25/2020			
5/12/2020			
5/13/2020	7.27		
9/17/2020			
9/21/2020	7.56		8.15
9/22/2020		8.76	
9/23/2020			
2/1/2021		8.66	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			8.03
2/17/2021	7.29		

Time Series

Constituent: pH (SU) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
8/21/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		7.35							
3/17/2020	7.67		8.4	8.44					
3/18/2020							7.2		
3/24/2020					7.99			6.28	
5/12/2020		7.44	8.46						
5/13/2020	7.7			8.52					
8/27/2020									
9/15/2020	7.66								
9/16/2020		7.45	8.48						
9/17/2020				8.18			7.22		
9/22/2020					7.96	6.64		6.51	8.66
2/2/2021						6.55			
2/3/2021	7.64	7.26						6.47	
2/4/2021			8.35						
2/8/2021							7.36		
2/9/2021					8.06				
2/17/2021				8.36					8.72

Time Series

Constituent: pH (SU) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		7.27	6.81
9/20/2016		7.27	6.72
10/24/2016		7.25	
10/26/2016			6.68
12/12/2016		7.26	6.76
2/6/2017		7.24	6.75
3/27/2017		7.29	6.67
4/24/2017		7.46	6.81
6/6/2017		7.29	6.8
8/21/2017		7.21	6.78
2/19/2018		7.36	6.85
5/14/2018		7.36	6.82
10/15/2018		7.33	6.78
4/16/2019		7.26	6.82
9/23/2019		7.23	6.51
3/16/2020			
3/17/2020		7.39	6.92
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	8.9		
9/15/2020	8.94		
9/16/2020			6.93
9/17/2020		7.41	
9/22/2020			
2/2/2021			
2/3/2021	8.9	7.55	7.05
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: pH (SU) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		7.72							
8/3/2016			5.84						
9/21/2016		7.6	5.99						
10/24/2016		7.68							
10/25/2016			5.94						
12/12/2016		7.72							
12/13/2016			5.84						
2/6/2017		7.64	5.9						
3/28/2017		7.58	5.67						
4/24/2017		7.68	5.79						
6/7/2017		7.56	5.71						
8/21/2017		7.61	5.7						
2/19/2018		7.65	5.78						
5/15/2018		7.69	5.84						
10/15/2018		7.62							
10/16/2018			5.75						
4/16/2019			5.76						
4/23/2019		7.83							
9/24/2019		7.38	5.27						
3/17/2020		7.72							
3/18/2020			5.81						
3/23/2020				6.97					
3/24/2020					7.89		7.77		
3/25/2020						6.8			
9/8/2020	8.67								
9/15/2020	8.76								
9/16/2020		7.74							
9/17/2020					9.15		8.81		
9/21/2020			5.75						
9/22/2020				7.08		7			
2/2/2021		7.77	5.69	6.94			7.5		
2/3/2021	8.9								
2/8/2021								6.77	
2/10/2021						6.9			
2/17/2021				8.32					7.71

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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				<0.001015		<0.001015		<0.001015	
8/2/2016			<0.001015						
8/3/2016	<0.001015								
9/19/2016						<0.001015		<0.001015	
9/20/2016	<0.001015		<0.001015	<0.001015					
9/21/2016									
10/24/2016								<0.001015	
10/25/2016	<0.001015		<0.001015	<0.001015		<0.001015			
12/12/2016									
12/13/2016	<0.001015		<0.001015			<0.001015		<0.001015	
12/14/2016				<0.001015					
2/6/2017								<0.001015	
2/7/2017									
2/8/2017	<0.001015		<0.001015	<0.001015		<0.001015			
3/27/2017								<0.001015	
3/28/2017				<0.001015					
3/29/2017	<0.001015		<0.001015			<0.001015			
4/24/2017								<0.001015	
4/26/2017	<0.001015		<0.001015	<0.001015		<0.001015			
6/5/2017								<0.001015	
6/6/2017				<0.001015		<0.001015			
6/7/2017	<0.001015		<0.001015						
2/19/2018								<0.001015	
2/20/2018	<0.001015		<0.001015	<0.001015					
2/21/2018						<0.001015			
5/15/2018	<0.001015		<0.001015	<0.001015				<0.001015	
5/16/2018						<0.001015			
10/15/2018				<0.001015				<0.001015	
10/16/2018	<0.001015								
10/17/2018			<0.001015			<0.001015			
2/20/2019									<0.001015
2/21/2019		<0.001015							
2/26/2019									
4/16/2019	<0.001015		<0.001015						
4/17/2019				<0.001015		<0.001015		<0.001015	
9/23/2019								<0.001015	
9/24/2019				<0.001015		<0.001015			<0.001015
9/25/2019	<0.001015	<0.001015							
3/16/2020								<0.001015	
3/18/2020	<0.001015			<0.001015	<0.001015				
3/24/2020		<0.001015				<0.001015			
3/25/2020									<0.001015
5/12/2020								<0.001015	
9/21/2020					<0.001015		<0.001015	<0.001015	
9/22/2020						<0.001015			
9/23/2020	<0.001015	<0.001015		<0.001015					<0.001015
2/1/2021	<0.001015	<0.001015							
2/2/2021								<0.001015	<0.001015
2/3/2021									
2/8/2021									
2/9/2021				<0.001015	<0.001015				
2/10/2021						<0.001015	<0.001015		

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.001015
8/2/2016	<0.001015		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.001015		<0.001015
10/24/2016	<0.001015		<0.001015
10/25/2016			
12/12/2016	<0.001015		
12/13/2016			<0.001015
12/14/2016			
2/6/2017			
2/7/2017			<0.001015
2/8/2017	<0.001015		
3/27/2017			
3/28/2017	<0.001015		<0.001015
3/29/2017			
4/24/2017			
4/26/2017	<0.001015		<0.001015
6/5/2017			
6/6/2017	<0.001015		<0.001015
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.001015		<0.001015
5/15/2018			
5/16/2018	<0.001015		<0.001015
10/15/2018			
10/16/2018	<0.001015		<0.001015
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.001015	
4/16/2019			
4/17/2019	<0.001015		<0.001015
9/23/2019			
9/24/2019	<0.001015		<0.001015
9/25/2019			
3/16/2020			
3/18/2020	<0.001015		
3/24/2020			<0.001015
3/25/2020		<0.001015	
5/12/2020			
9/21/2020			
9/22/2020		<0.001015	<0.001015
9/23/2020	<0.001015		
2/1/2021			
2/2/2021			
2/3/2021		<0.001015	
2/8/2021	<0.001015		<0.001015
2/9/2021			
2/10/2021			

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.001015	<0.001015							
9/19/2016	<0.001015								
9/21/2016		<0.001015							
10/24/2016	<0.001015								
10/25/2016		<0.001015							
12/13/2016	<0.001015								
12/14/2016		<0.001015							
2/8/2017	<0.001015	<0.001015							
3/28/2017		<0.001015							
3/30/2017	<0.001015								
4/26/2017	<0.001015	<0.001015							
6/6/2017	<0.001015	<0.001015							
2/20/2018		<0.001015							
2/21/2018	<0.001015								
5/15/2018		<0.001015							
5/16/2018	<0.001015								
10/16/2018	<0.001015	<0.001015							
2/20/2019				<0.001015					
2/26/2019					<0.001015				
2/27/2019							<0.001015		<0.001015
3/13/2019								<0.001015	
4/17/2019	<0.001015	<0.001015							
9/23/2019				<0.001015			<0.001015		
9/24/2019		<0.001015			<0.001015				<0.001015
9/25/2019	<0.001015							<0.001015	
3/16/2020								<0.001015	
3/17/2020				<0.001015					
3/18/2020		<0.001015			<0.001015				
3/23/2020			<0.001015						
3/24/2020						<0.001015			
3/25/2020	<0.001015						<0.001015		<0.001015
5/12/2020								<0.001015	
5/13/2020	<0.001015								
9/17/2020				<0.001015	<0.001015	0.00636 (J)			
9/21/2020							<0.001015		
9/22/2020	<0.001015							<0.001015	<0.001015
9/23/2020		<0.001015	<0.001015						
2/1/2021	<0.001015								
2/2/2021					<0.001015				
2/3/2021				<0.001015					<0.001015
2/8/2021		<0.001015							
2/9/2021			<0.001015				<0.001015		
2/10/2021						<0.001015			
2/17/2021								<0.001015	

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.001015	<0.001015	
3/23/2020			
3/24/2020			<0.001015
3/25/2020			
5/12/2020			
5/13/2020	<0.001015		
9/17/2020			
9/21/2020	<0.001015		<0.001015
9/22/2020		<0.001015	
9/23/2020			
2/1/2021		<0.001015	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.001015
2/17/2021	<0.001015		

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.001015							
3/17/2020	<0.001015		<0.001015	<0.001015					
3/18/2020							<0.001015		
3/24/2020					<0.001015			<0.001015	
5/12/2020		<0.001015	<0.001015						
5/13/2020	<0.001015			<0.001015					
8/27/2020									
9/15/2020	<0.001015								
9/16/2020		<0.001015	<0.001015						
9/17/2020				<0.001015			<0.001015		
9/22/2020					<0.001015	<0.001015		<0.001015	<0.001015
2/2/2021						<0.001015			
2/3/2021	<0.001015	<0.001015						<0.001015	
2/4/2021			<0.001015						
2/8/2021							<0.001015		
2/9/2021					<0.001015				
2/17/2021				<0.001015					<0.001015

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.001015	<0.001015
9/20/2016		<0.001015	<0.001015
10/24/2016		<0.001015	
10/26/2016			<0.001015
12/12/2016		<0.001015	<0.001015
2/6/2017		<0.001015	<0.001015
3/27/2017		<0.001015	<0.001015
4/24/2017		<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015
2/19/2018		<0.001015	<0.001015
5/14/2018		<0.001015	<0.001015
10/15/2018		<0.001015	<0.001015
4/16/2019		<0.001015	<0.001015
9/23/2019		<0.001015	<0.001015
3/16/2020			
3/17/2020		<0.001015	<0.001015
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.001015		
9/15/2020	<0.001015		
9/16/2020			<0.001015
9/17/2020		<0.001015	
9/22/2020			
2/2/2021			
2/3/2021	<0.001015	<0.001015	0.000794 (J)
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.001015							
8/3/2016			<0.001015						
9/21/2016		<0.001015	<0.001015						
10/24/2016		<0.001015							
10/25/2016			<0.001015						
12/12/2016		<0.001015							
12/13/2016			<0.001015						
2/6/2017		<0.001015	<0.001015						
3/28/2017		<0.001015	<0.001015						
4/24/2017		<0.001015	<0.001015						
6/7/2017		<0.001015	<0.001015						
2/19/2018		<0.001015	<0.001015						
5/15/2018		<0.001015	<0.001015						
10/15/2018		<0.001015							
10/16/2018			<0.001015						
4/16/2019			<0.001015						
4/23/2019		<0.001015							
9/24/2019		<0.001015	<0.001015						
3/17/2020		<0.001015							
3/18/2020			<0.001015						
3/23/2020				<0.001015					
3/24/2020					<0.001015		<0.001015		
3/25/2020						<0.001015			
9/8/2020	<0.001015								
9/15/2020	<0.001015								
9/16/2020		<0.001015							
9/17/2020					<0.001015		<0.001015		
9/21/2020			<0.001015						
9/22/2020				<0.001015		<0.001015			
2/2/2021		<0.001015	<0.001015	<0.001015			<0.001015		
2/3/2021	<0.001015								
2/8/2021								<0.001015	
2/10/2021						<0.001015			
2/17/2021				<0.001015					<0.001015

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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			
12/12/2016									
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			
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						
8/22/2017	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	
3/18/2020	20.8			15.9	261				
3/24/2020		<1				14.1			
3/25/2020									9.69
5/12/2020								44.4	
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
2/3/2021									
2/8/2021									
2/9/2021				10.6	350				
2/10/2021						15.8	3.84		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			9.02
8/2/2016	295		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	440		8.38
10/24/2016	608		18.5
10/25/2016			
12/12/2016	755		
12/13/2016			7.4
12/14/2016			
2/6/2017			
2/7/2017			8.16
2/8/2017	672		
3/27/2017			
3/28/2017	610		6.4
3/29/2017			
4/24/2017			
4/26/2017	600		4.6 (J)
6/5/2017			
6/6/2017	670		5.2
6/7/2017			
8/22/2017			5.3
8/23/2017	560		
5/15/2018			
5/16/2018	260		6
10/15/2018			
10/16/2018	520		5.6
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		39.9	
4/16/2019			
4/17/2019	71.6		14.3
9/23/2019			
9/24/2019	119		13.8
9/25/2019			
3/16/2020			
3/18/2020	216		
3/24/2020			15.2
3/25/2020		16.5	
5/12/2020			
9/21/2020			
9/22/2020		14.4	16.9
9/23/2020	88.9		
2/1/2021			
2/2/2021			
2/3/2021		14.6	
2/8/2021	72.6		16.2
2/9/2021			
2/10/2021			

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
8/21/2017			
8/23/2017			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	184	50.4	
3/23/2020			
3/24/2020			33.2
3/25/2020			
5/12/2020			
5/13/2020	194		
9/17/2020			
9/21/2020	128		38.7
9/22/2020		22.1	
9/23/2020			
2/1/2021		32.2	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			50.8
2/17/2021	136		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
8/21/2017									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		1480							
3/17/2020	172		40.1	57.1					
3/18/2020							122		
3/24/2020					16.7			449	
5/12/2020		1330	22.6						
5/13/2020	60			47.8					
8/27/2020									
9/15/2020	98.6								
9/16/2020		1390	24.6						
9/17/2020				50.2			105		
9/22/2020					27	626		372	269
2/2/2021						644			
2/3/2021	70.7	1610						373	
2/4/2021			25.3						
2/8/2021							111		
2/9/2021					27				
2/17/2021				28.9					285

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		52	203
9/20/2016		56	209
10/24/2016		57.5	
10/26/2016			224
12/12/2016		50	249
2/6/2017		54.9	309
3/27/2017		50	290
4/24/2017		56	300
6/6/2017		63	310
8/21/2017		35	260
5/14/2018		46	210
10/15/2018		37	170
4/16/2019		46.8	195
9/23/2019		47.9	176
3/16/2020			
3/17/2020		59.5	148
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	33.5		
9/15/2020	71.6		
9/16/2020			115
9/17/2020		65.1	
9/22/2020			
2/2/2021			
2/3/2021	57	58.9	116
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		154							
8/3/2016			4.2						
9/21/2016		146	4.27						
10/24/2016		131							
10/25/2016			2.78						
12/12/2016		141							
12/13/2016			3.18						
2/6/2017		135	3.74						
3/28/2017		140	3.4 (J)						
4/24/2017		140	2.7 (J)						
6/7/2017		150	2.7 (J)						
8/21/2017		140	3.9 (J)						
5/15/2018		120	2.5 (J)						
10/15/2018		130							
10/16/2018			2.4 (J)						
4/16/2019			4.53						
4/23/2019		156							
9/24/2019		145	6.61						
3/17/2020		149							
3/18/2020			4.86						
3/23/2020				18.7					
3/24/2020					27.7		70.1		
3/25/2020						355			
9/8/2020	9.06								
9/15/2020	7.02								
9/16/2020		131							
9/17/2020					15.2		79.9		
9/21/2020			4.69						
9/22/2020				21.2		245			
2/2/2021		130	4.83	31.2			84.1		
2/3/2021	4.29								
2/8/2021								95.1	
2/10/2021						390			
2/17/2021					14.1				158

Time Series

Constituent: TDS (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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				640		222		408	
8/2/2016			221						
8/3/2016	546								
9/19/2016						220		441	
9/20/2016	542		221	434					
9/21/2016									
10/24/2016								424	
10/25/2016	518		226	394		223			
12/12/2016									
12/13/2016	424		211			211		466	
12/14/2016				387					
2/6/2017								414	
2/7/2017									
2/8/2017	379		212	303		206			
3/27/2017								444	
3/28/2017				305					
3/29/2017	334		217			215			
4/24/2017								446	
4/26/2017	332		202	329		212			
6/5/2017								493	
6/6/2017				331		227			
6/7/2017	308		218						
8/22/2017	286		224	364		230		500	
8/23/2017									
5/15/2018	235		209	340				528	
5/16/2018						216			
10/15/2018				448				462	
10/16/2018	211								
10/17/2018			208			191			
2/20/2019									346
2/21/2019		237							
2/26/2019									
4/16/2019	193		185						
4/17/2019				354		207		540	
9/23/2019								684	
9/24/2019				536		208			365
9/25/2019	253	183							
3/16/2020								516	
3/18/2020	236			515	873				
3/24/2020		206				205			
3/25/2020									364
5/12/2020								493	
9/21/2020					1090		426	658	
9/22/2020						218			
9/23/2020	216	195		600					368
2/1/2021	224	240							
2/2/2021								548	356
2/3/2021									
2/8/2021									
2/9/2021				616	1040				
2/10/2021						224	402		

Time Series

Constituent: TDS (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			245
8/2/2016	586		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	848		267
10/24/2016	1100		275
10/25/2016			
12/12/2016	1260		
12/13/2016			255
12/14/2016			
2/6/2017			
2/7/2017			272
2/8/2017	1160		
3/27/2017			
3/28/2017	1100		271
3/29/2017			
4/24/2017			
4/26/2017	1090		265
6/5/2017			
6/6/2017	1170		287
6/7/2017			
8/22/2017			293
8/23/2017	1020		
5/15/2018			
5/16/2018	658		301
10/15/2018			
10/16/2018	1030		303
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		238	
4/16/2019			
4/17/2019	347		296
9/23/2019			
9/24/2019	372		302
9/25/2019			
3/16/2020			
3/18/2020	618		
3/24/2020			302
3/25/2020		287	
5/12/2020			
9/21/2020			
9/22/2020		290	300
9/23/2020	380		
2/1/2021			
2/2/2021			
2/3/2021		308	
2/8/2021	384		324
2/9/2021			
2/10/2021			

Time Series

Constituent: TDS (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
8/21/2017			
8/23/2017			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	612	326	
3/23/2020			
3/24/2020			331
3/25/2020			
5/12/2020			
5/13/2020	624		
9/17/2020			
9/21/2020	592		357
9/22/2020		298	
9/23/2020			
2/1/2021		339	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			379
2/17/2021	534		

Time Series

Constituent: TDS (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
8/21/2017									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		2460							
3/17/2020	827		365	362					
3/18/2020							309		
3/24/2020					335			850	
5/12/2020		2440	311						
5/13/2020	457			333					
8/27/2020									
9/15/2020	538								
9/16/2020		2720	326						
9/17/2020				348			318		
9/22/2020					339	1310		800	910
2/2/2021						1320			
2/3/2021	443	2930						768	
2/4/2021			339						
2/8/2021							326		
2/9/2021					355				
2/17/2021				292					853

Time Series

Constituent: TDS (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		302	394
9/20/2016		298	444
10/24/2016		306	
10/26/2016			456
12/12/2016		291	491
2/6/2017		285	580
3/27/2017		305	554
4/24/2017		301	566
6/6/2017		311	580
8/21/2017		289	524
5/14/2018		303	458
10/15/2018		309	404
4/16/2019		285	382
9/23/2019		296	381
3/16/2020			
3/17/2020		303	328
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	435		
9/15/2020	564		
9/16/2020			269
9/17/2020		314	
9/22/2020			
2/2/2021			
2/3/2021	592	301	274
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

Constituent: TDS (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		358							
8/3/2016			113						
9/21/2016		370	128						
10/24/2016		370							
10/25/2016			121						
12/12/2016		353							
12/13/2016			101						
2/6/2017		338	108						
3/28/2017		352	91						
4/24/2017		362	89.3						
6/7/2017		348	84						
8/21/2017		362	91.3						
5/15/2018		338	94.7						
10/15/2018		333							
10/16/2018			76.7						
4/16/2019			92						
4/23/2019		354							
9/24/2019		344	109						
3/17/2020		334							
3/18/2020			90.7						
3/23/2020				268					
3/24/2020					381		412		
3/25/2020						738			
9/8/2020	810								
9/15/2020	857								
9/16/2020		351							
9/17/2020					387		438		
9/21/2020			94						
9/22/2020				285		648			
2/2/2021		349	98.7	314			446		
2/3/2021	840								
2/8/2021								317	
2/10/2021						787			
2/17/2021					397				387

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

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				<0.000203		<0.000203		<0.000203	
8/2/2016			<0.000203						
8/3/2016	<0.000203								
9/19/2016						<0.000203		<0.000203	
9/20/2016	<0.000203		<0.000203	<0.000203					
9/21/2016									
10/24/2016								<0.000203	
10/25/2016	<0.000203		<0.000203	<0.000203		<0.000203			
12/12/2016									
12/13/2016	<0.000203		<0.000203			<0.000203		<0.000203	
12/14/2016				<0.000203					
2/6/2017								<0.000203	
2/7/2017									
2/8/2017	<0.000203		<0.000203	<0.000203		<0.000203			
3/27/2017								<0.000203	
3/28/2017				<0.000203					
3/29/2017	<0.000203		<0.000203			<0.000203			
4/24/2017								<0.000203	
4/26/2017	<0.000203		<0.000203	<0.000203		<0.000203			
6/5/2017								<0.000203	
6/6/2017				<0.000203		<0.000203			
6/7/2017	<0.000203		<0.000203						
2/19/2018								<0.000203	
2/20/2018	<0.000203		<0.000203	<0.000203					
2/21/2018						<0.000203			
5/15/2018	<0.000203		<0.000203	<0.000203				<0.000203	
5/16/2018						<0.000203			
10/15/2018				<0.000203				<0.000203	
10/16/2018	<0.000203								
10/17/2018			<0.000203			<0.000203			
2/20/2019									<0.000203
2/21/2019		<0.000203							
2/26/2019									
4/16/2019	<0.000203		<0.000203						
4/17/2019				<0.000203		<0.000203		<0.000203	
9/23/2019								<0.000203	
9/24/2019				<0.000203		<0.000203			<0.000203
9/25/2019	<0.000203	<0.000203							
3/16/2020								<0.000203	
3/18/2020	<0.000203			<0.000203	<0.000203				
3/24/2020		<0.000203				<0.000203			
3/25/2020									<0.000203
5/12/2020								<0.000203	
9/21/2020					<0.000203		<0.000203	<0.000203	
9/22/2020						<0.000203			
9/23/2020	<0.000203	<0.000203		<0.000203					<0.000203
2/1/2021	<0.000203	<0.000203							
2/2/2021								<0.000203	<0.000203
2/3/2021									
2/8/2021									
2/9/2021				<0.000203	<0.000203				
2/10/2021						<0.000203	<0.000203		

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-18	GS-AP-MW-18V	GS-AP-MW-19
8/1/2016			<0.000203
8/2/2016	<0.000203		
8/3/2016			
9/19/2016			
9/20/2016			
9/21/2016	<0.000203		<0.000203
10/24/2016	<0.000203		<0.000203
10/25/2016			
12/12/2016	<0.000203		
12/13/2016			<0.000203
12/14/2016			
2/6/2017			
2/7/2017			<0.000203
2/8/2017	<0.000203		
3/27/2017			
3/28/2017	<0.000203		<0.000203
3/29/2017			
4/24/2017			
4/26/2017	<0.000203		<0.000203
6/5/2017			
6/6/2017	<0.000203		<0.000203
6/7/2017			
2/19/2018			
2/20/2018			
2/21/2018	<0.000203		<0.000203
5/15/2018			
5/16/2018	<0.000203		<0.000203
10/15/2018			
10/16/2018	<0.000203		<0.000203
10/17/2018			
2/20/2019			
2/21/2019			
2/26/2019		<0.000203	
4/16/2019			
4/17/2019	<0.000203		<0.000203
9/23/2019			
9/24/2019	<0.000203		<0.000203
9/25/2019			
3/16/2020			
3/18/2020	<0.000203		
3/24/2020			<0.000203
3/25/2020		<0.000203	
5/12/2020			
9/21/2020			
9/22/2020		<0.000203	<0.000203
9/23/2020	<0.000203		
2/1/2021			
2/2/2021			
2/3/2021		<0.000203	
2/8/2021	<0.000203		<0.000203
2/9/2021			
2/10/2021			

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H
8/2/2016	<0.000203	<0.000203							
9/19/2016	<0.000203								
9/21/2016		<0.000203							
10/24/2016	<0.000203								
10/25/2016		<0.000203							
12/13/2016	<0.000203								
12/14/2016		<0.000203							
2/8/2017	<0.000203	<0.000203							
3/28/2017		<0.000203							
3/30/2017	<0.000203								
4/26/2017	<0.000203	<0.000203							
6/6/2017	<0.000203	<0.000203							
2/20/2018		<0.000203							
2/21/2018	<0.000203								
5/15/2018		<0.000203							
5/16/2018	<0.000203								
10/16/2018	<0.000203	<0.000203							
2/20/2019				<0.000203					
2/26/2019					<0.000203				
2/27/2019							<0.000203		<0.000203
3/13/2019								<0.000203	
4/17/2019	<0.000203	<0.000203							
9/23/2019				<0.000203			<0.000203		
9/24/2019		<0.000203			<0.000203				<0.000203
9/25/2019	<0.000203							<0.000203	
3/16/2020								<0.000203	
3/17/2020				<0.000203					
3/18/2020		<0.000203			<0.000203				
3/23/2020			<0.000203						
3/24/2020						<0.000203			
3/25/2020	<0.000203						<0.000203		<0.000203
5/12/2020								<0.000203	
5/13/2020	<0.000203								
9/17/2020				<0.000203	<0.000203	<0.000203			
9/21/2020							<0.000203		
9/22/2020	<0.000203							<0.000203	<0.000203
9/23/2020		<0.000203	<0.000203						
2/1/2021	<0.000203								
2/2/2021					<0.000203				
2/3/2021				<0.000203					<0.000203
2/8/2021		<0.000203							
2/9/2021			<0.000203				<0.000203		
2/10/2021						<0.000203			
2/17/2021								<0.000203	

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H GS-AP-MW-32H

8/2/2016			
9/19/2016			
9/21/2016			
10/24/2016			
10/25/2016			
12/13/2016			
12/14/2016			
2/8/2017			
3/28/2017			
3/30/2017			
4/26/2017			
6/6/2017			
2/20/2018			
2/21/2018			
5/15/2018			
5/16/2018			
10/16/2018			
2/20/2019			
2/26/2019			
2/27/2019			
3/13/2019			
4/17/2019			
9/23/2019			
9/24/2019			
9/25/2019			
3/16/2020			
3/17/2020			
3/18/2020	<0.000203	<0.000203	
3/23/2020			
3/24/2020			<0.000203
3/25/2020			
5/12/2020			
5/13/2020	<0.000203		
9/17/2020			
9/21/2020	<0.000203		<0.000203
9/22/2020		<0.000203	
9/23/2020			
2/1/2021		<0.000203	
2/2/2021			
2/3/2021			
2/8/2021			
2/9/2021			
2/10/2021			<0.000203
2/17/2021	<0.000203		

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-42H	GS-AP-MW-43H
8/3/2016									
9/20/2016									
10/24/2016									
10/26/2016									
12/12/2016									
2/6/2017									
3/27/2017									
4/24/2017									
6/6/2017									
2/19/2018									
5/14/2018									
10/15/2018									
4/16/2019									
9/23/2019									
3/16/2020		<0.000203							
3/17/2020	<0.000203		<0.000203	<0.000203					
3/18/2020							<0.000203		
3/24/2020					<0.000203			<0.000203	
5/12/2020		<0.000203	<0.000203						
5/13/2020	<0.000203			<0.000203					
8/27/2020									
9/15/2020	<0.000203								
9/16/2020		<0.000203	<0.000203						
9/17/2020				<0.000203			<0.000203		
9/22/2020					<0.000203	<0.000203		<0.000203	<0.000203
2/2/2021						<0.000203			
2/3/2021	<0.000203	<0.000203						<0.000203	
2/4/2021			<0.000203						
2/8/2021							<0.000203		
2/9/2021					<0.000203				
2/17/2021				<0.000203					<0.000203

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S
8/3/2016		<0.000203	<0.000203
9/20/2016		<0.000203	<0.000203
10/24/2016		<0.000203	
10/26/2016			<0.000203
12/12/2016		<0.000203	<0.000203
2/6/2017		<0.000203	<0.000203
3/27/2017		<0.000203	<0.000203
4/24/2017		<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203
2/19/2018		<0.000203	<0.000203
5/14/2018		<0.000203	<0.000203
10/15/2018		<0.000203	<0.000203
4/16/2019		<0.000203	<0.000203
9/23/2019		<0.000203	<0.000203
3/16/2020			
3/17/2020		<0.000203	<0.000203
3/18/2020			
3/24/2020			
5/12/2020			
5/13/2020			
8/27/2020	<0.000203		
9/15/2020	<0.000203		
9/16/2020			<0.000203
9/17/2020		<0.000203	
9/22/2020			
2/2/2021			
2/3/2021	<0.000203	<0.000203	<0.000203
2/4/2021			
2/8/2021			
2/9/2021			
2/17/2021			

Time Series

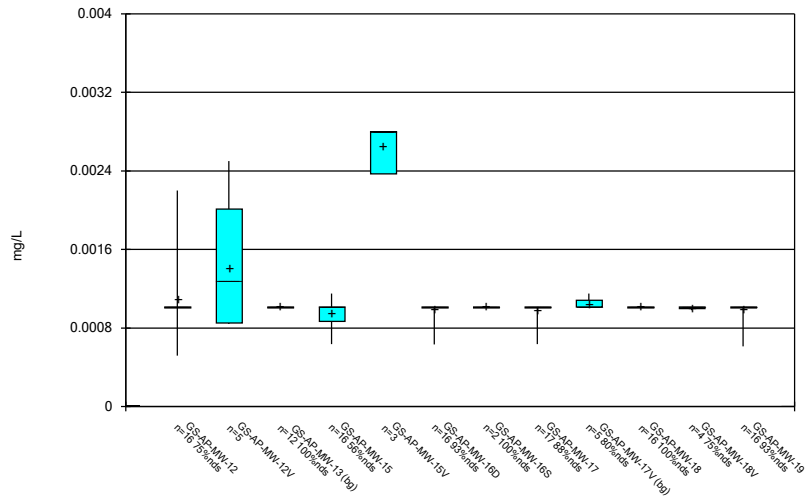
Constituent: Thallium (mg/L) Analysis Run 5/24/2021 1:29 PM View: Descriptive

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-18	GS-AP-PZ-22	GS-AP-MW-41HS	GS-AP-MW-3
8/2/2016		<0.000203							
8/3/2016			<0.000203						
9/21/2016		<0.000203	<0.000203						
10/24/2016		<0.000203							
10/25/2016			<0.000203						
12/12/2016		<0.000203							
12/13/2016			<0.000203						
2/6/2017		<0.000203	<0.000203						
3/28/2017		<0.000203	<0.000203						
4/24/2017		<0.000203	<0.000203						
6/7/2017		<0.000203	<0.000203						
2/19/2018		<0.000203	<0.000203						
5/15/2018		<0.000203	<0.000203						
10/15/2018		<0.000203							
10/16/2018			<0.000203						
4/16/2019			<0.000203						
4/23/2019		<0.000203							
9/24/2019		<0.000203	<0.000203						
3/17/2020		<0.000203							
3/18/2020			<0.000203						
3/23/2020				<0.000203					
3/24/2020					<0.000203		<0.000203		
3/25/2020						<0.000203			
9/8/2020	<0.000203								
9/15/2020	<0.000203								
9/16/2020		<0.000203							
9/17/2020					<0.000203		<0.000203		
9/21/2020			<0.000203						
9/22/2020				<0.000203		<0.000203			
2/2/2021		<0.000203	<0.000203	<0.000203			<0.000203		
2/3/2021	<0.000203								
2/8/2021								<0.000203	
2/10/2021						<0.000203			
2/17/2021				<0.000203					<0.000203

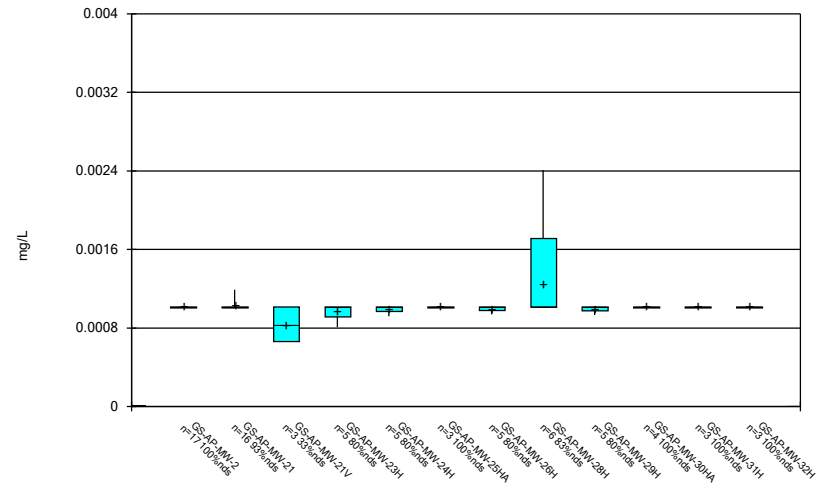
FIGURE B.

Box & Whiskers Plot



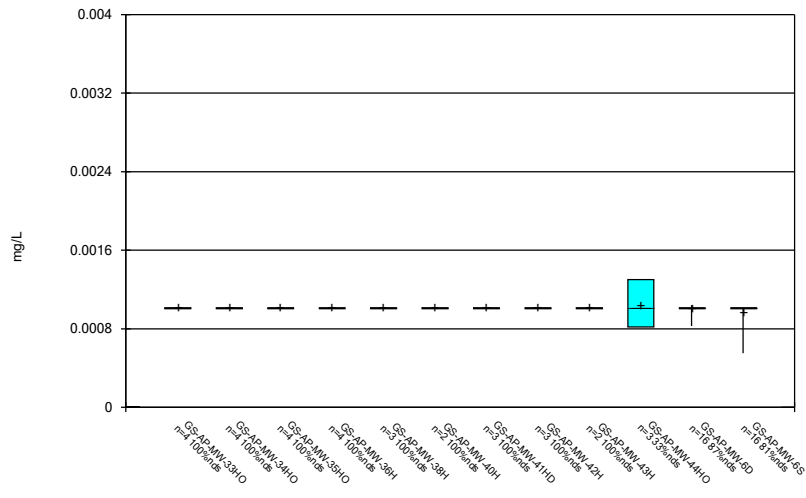
Constituent: Antimony Analysis Run 5/24/2021 1:30 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



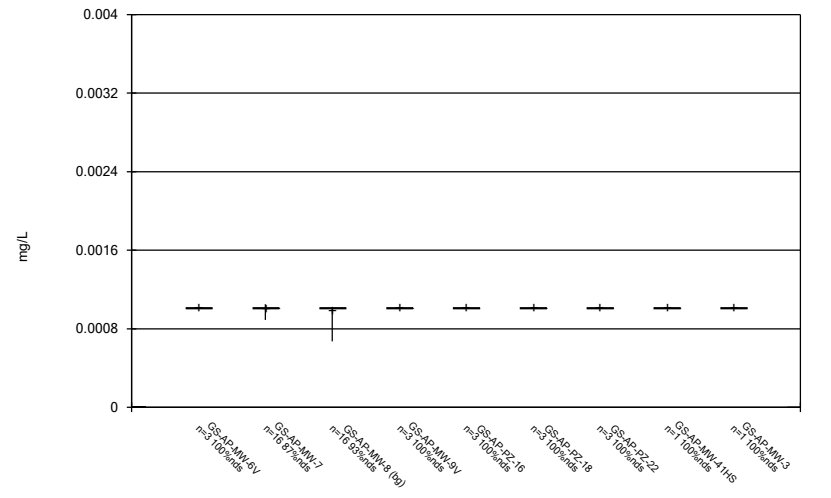
Constituent: Antimony Analysis Run 5/24/2021 1:31 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



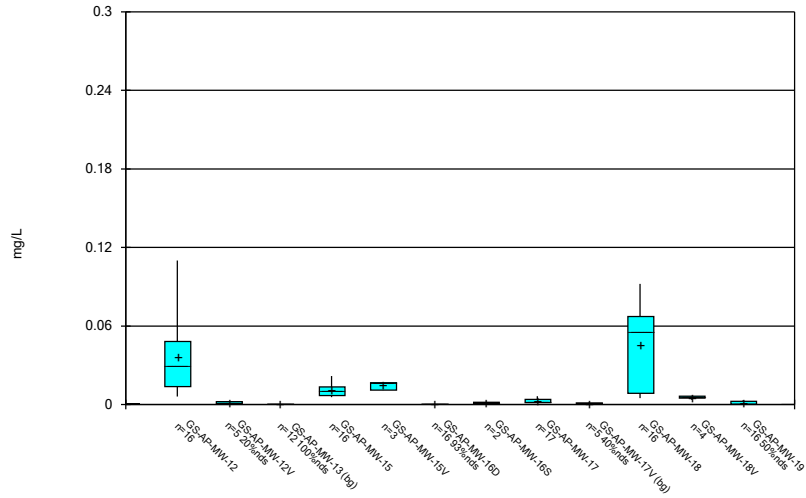
Constituent: Antimony Analysis Run 5/24/2021 1:31 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



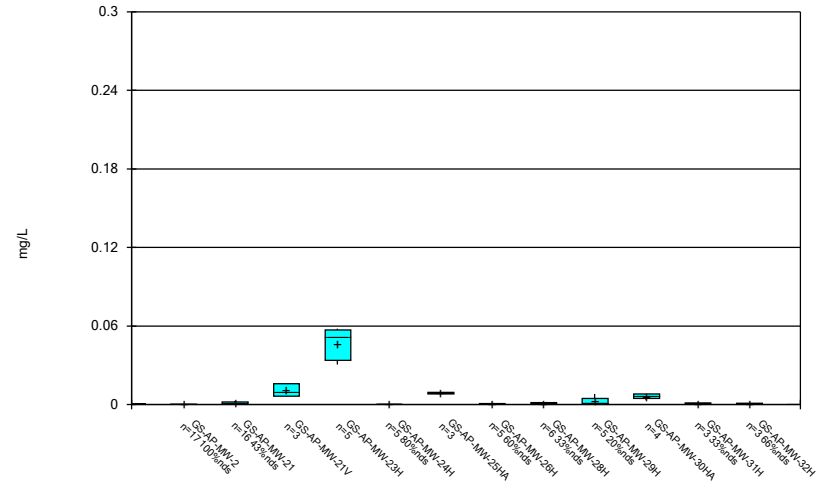
Constituent: Antimony Analysis Run 5/24/2021 1:31 PM View: Descriptive
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



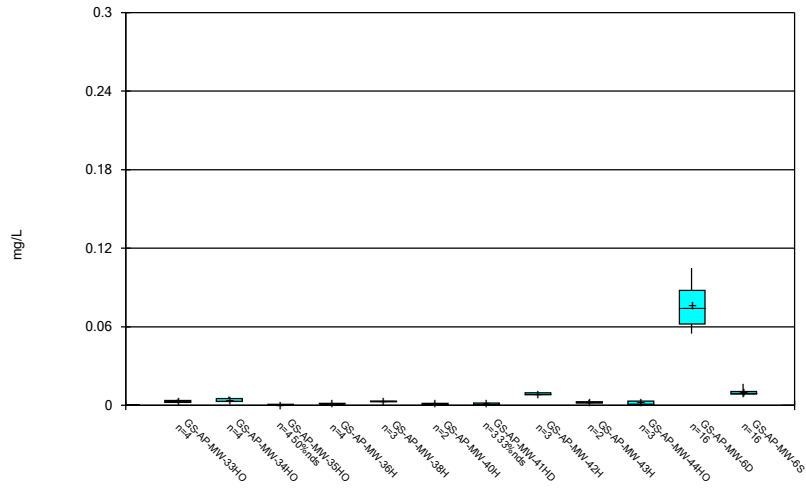
Constituent: Arsenic Analysis Run 5/24/2021 1:31 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



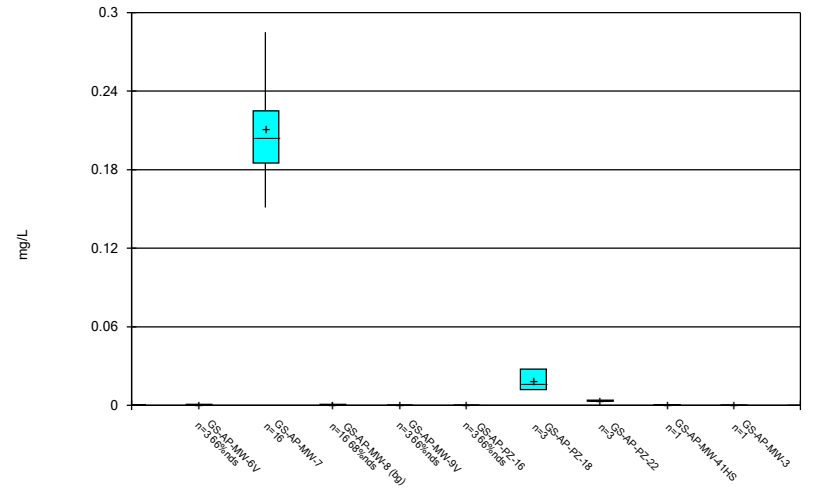
Constituent: Arsenic Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



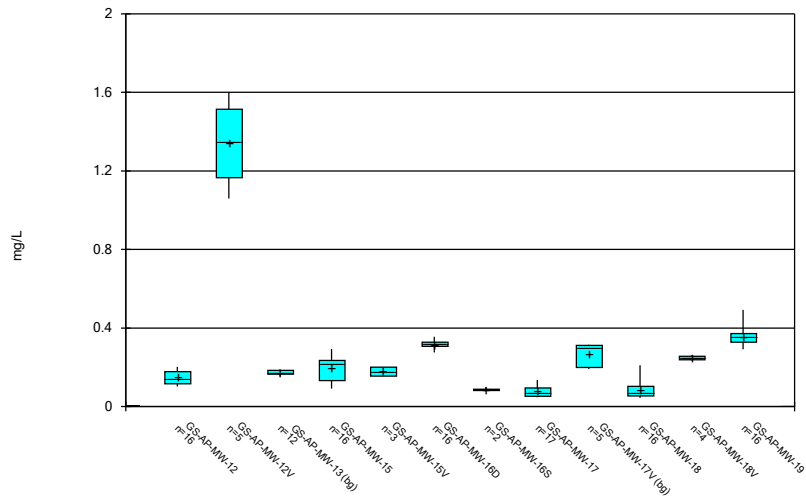
Constituent: Arsenic Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



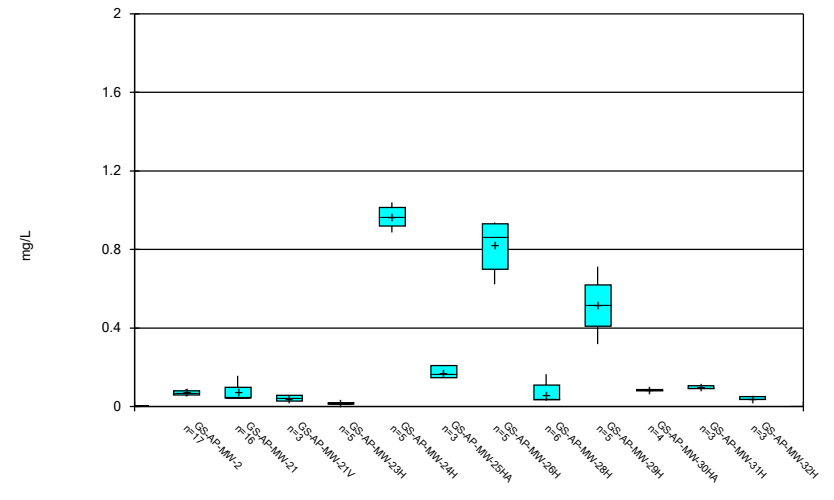
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



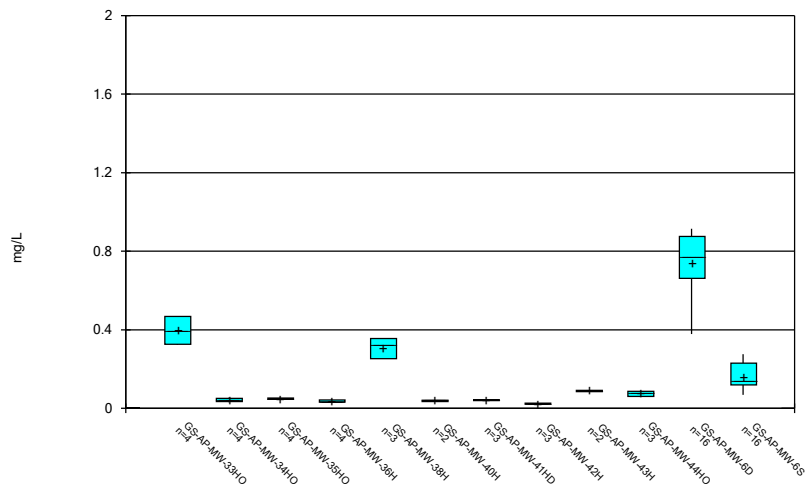
Constituent: Barium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



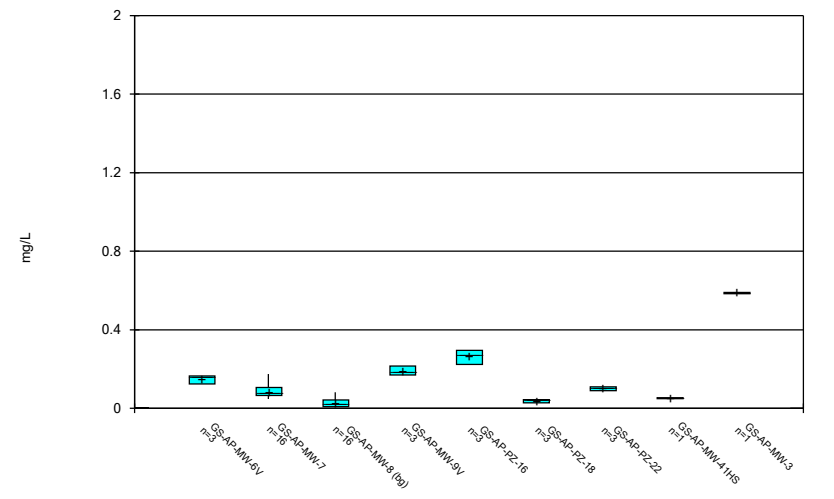
Constituent: Barium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



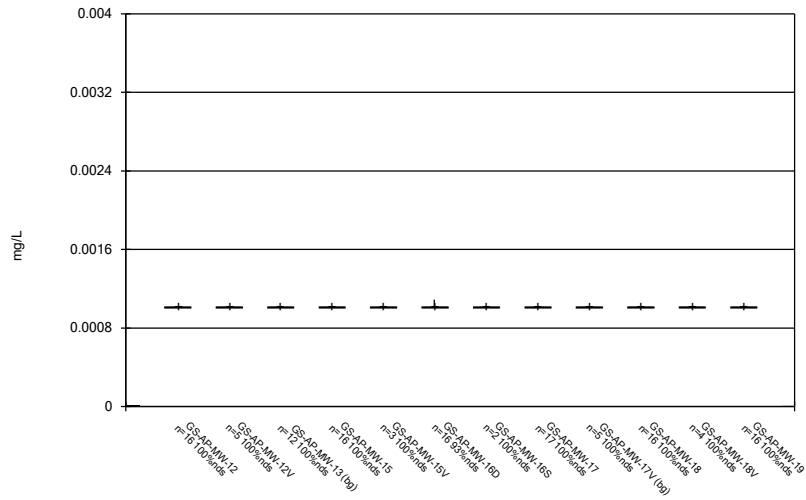
Constituent: Barium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



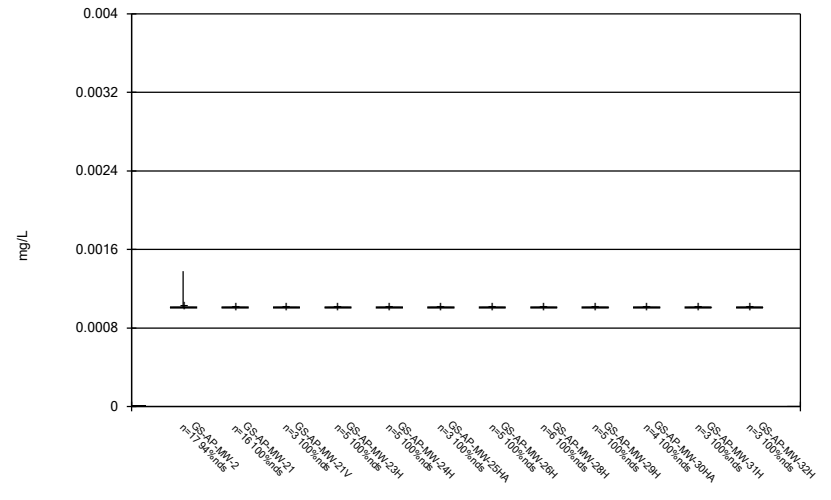
Constituent: Barium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



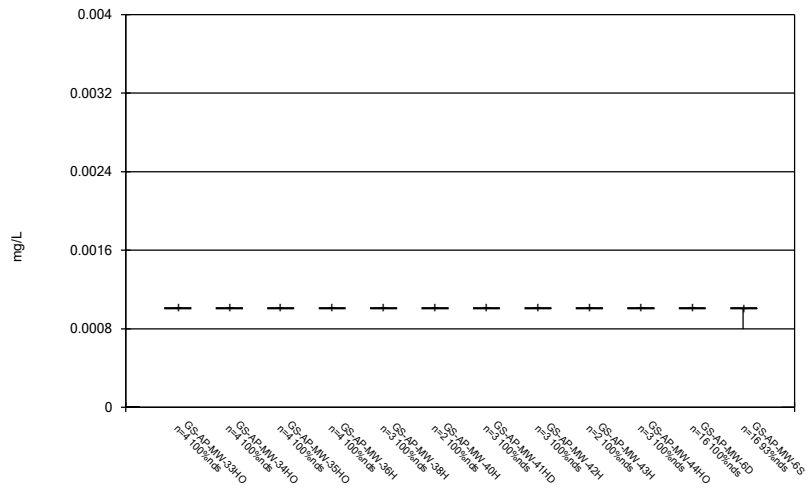
Constituent: Beryllium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



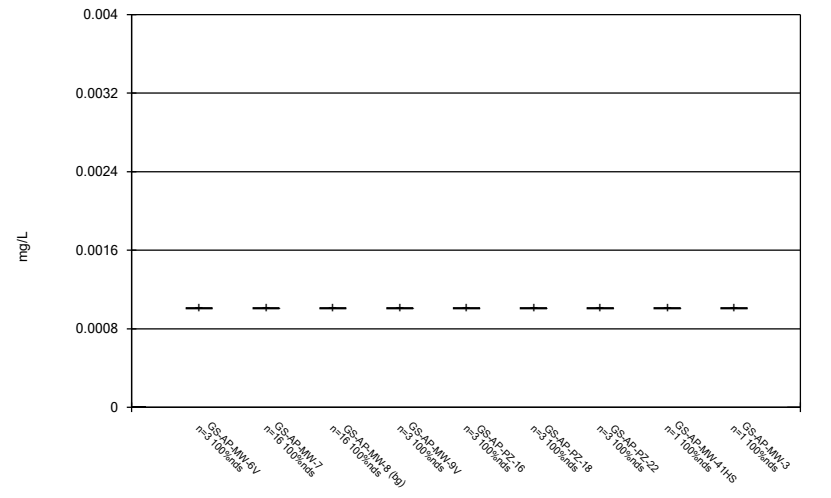
Constituent: Beryllium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



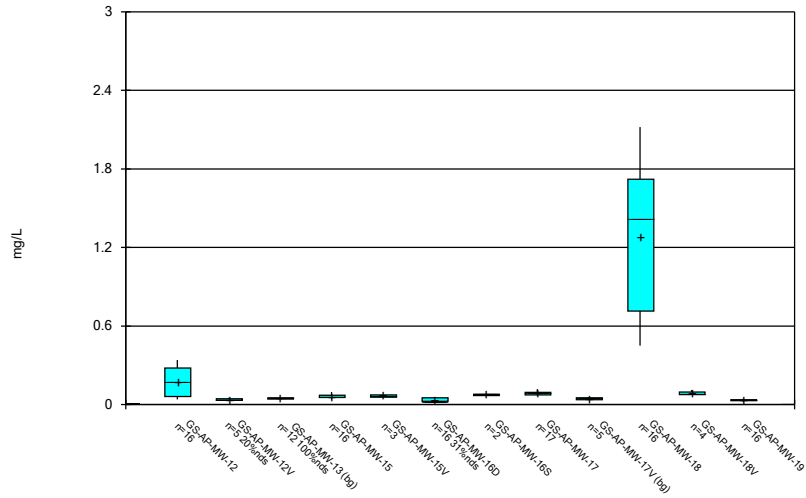
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



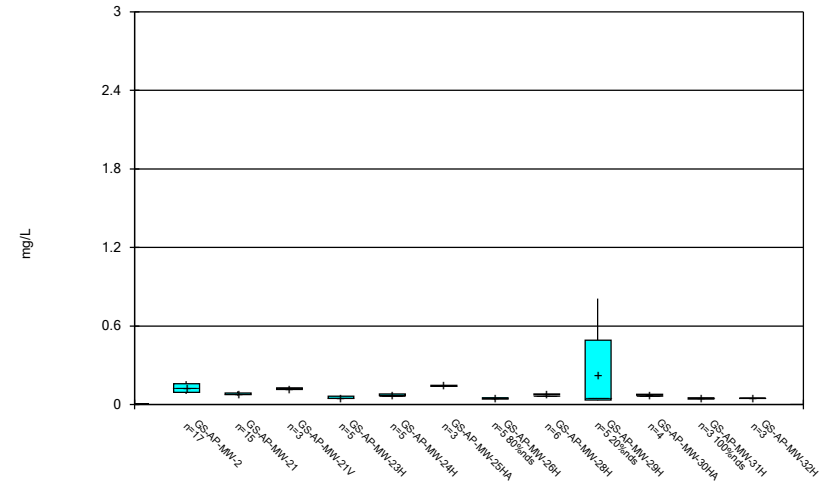
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



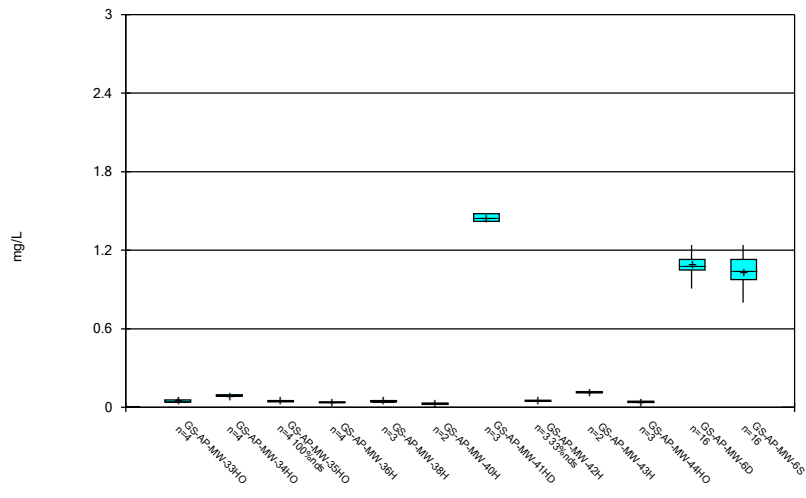
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



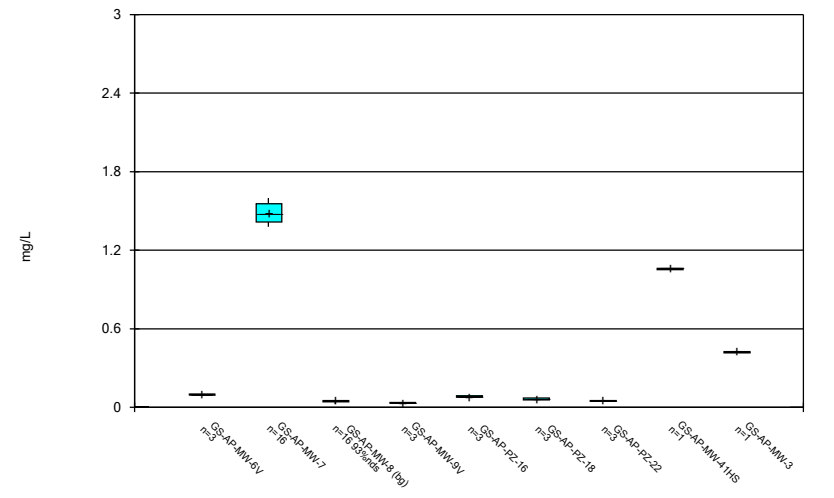
Constituent: Boron Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



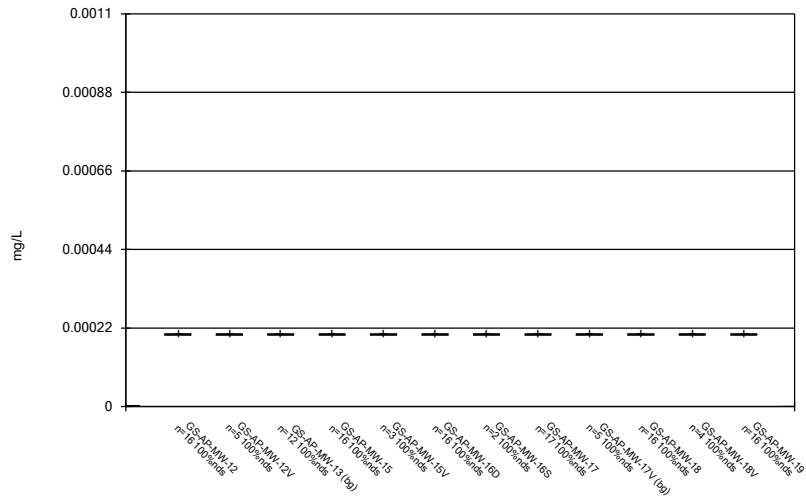
Constituent: Boron Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



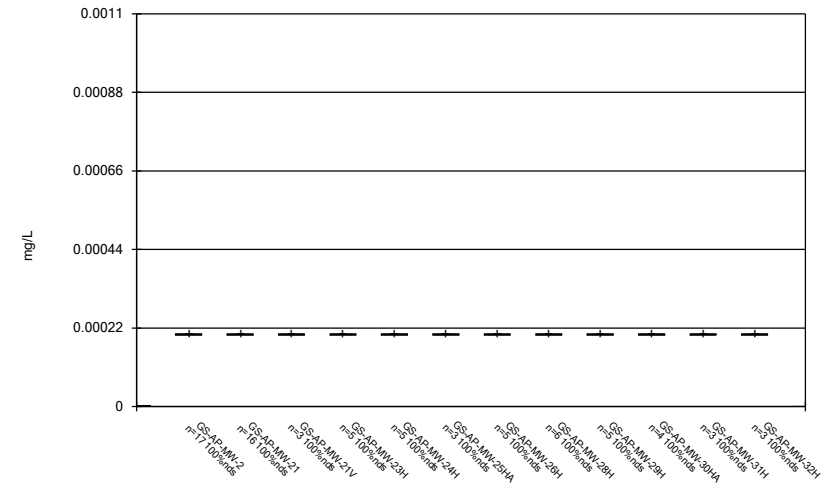
Constituent: Boron Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



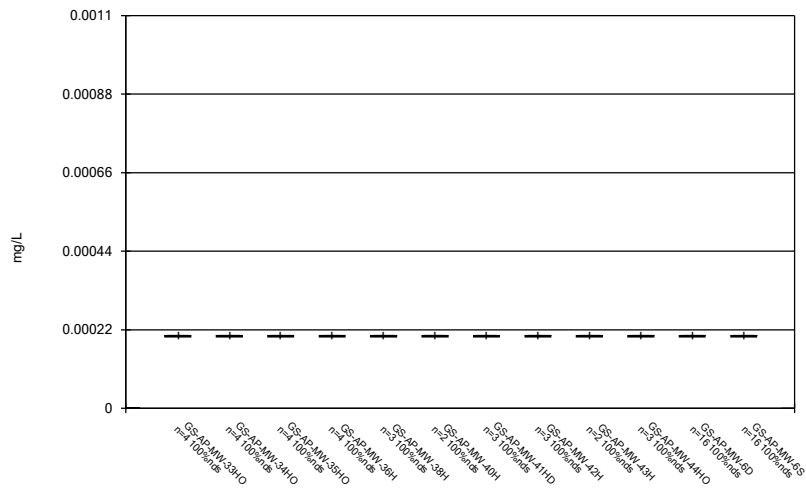
Constituent: Cadmium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



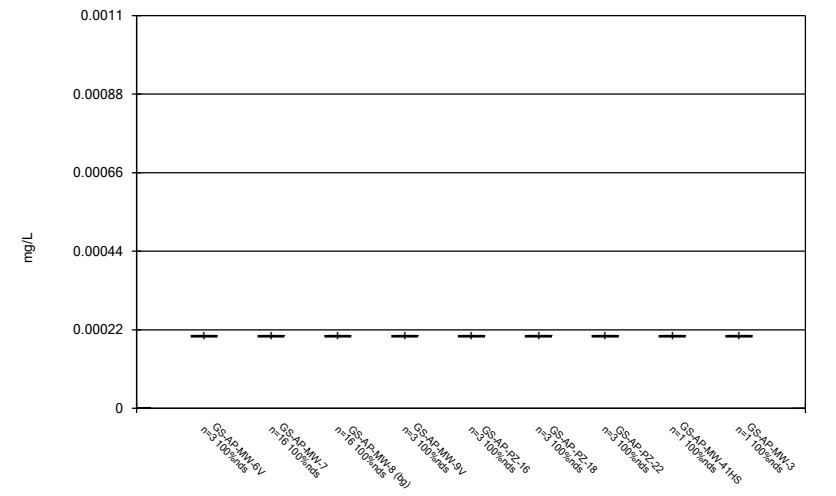
Constituent: Cadmium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



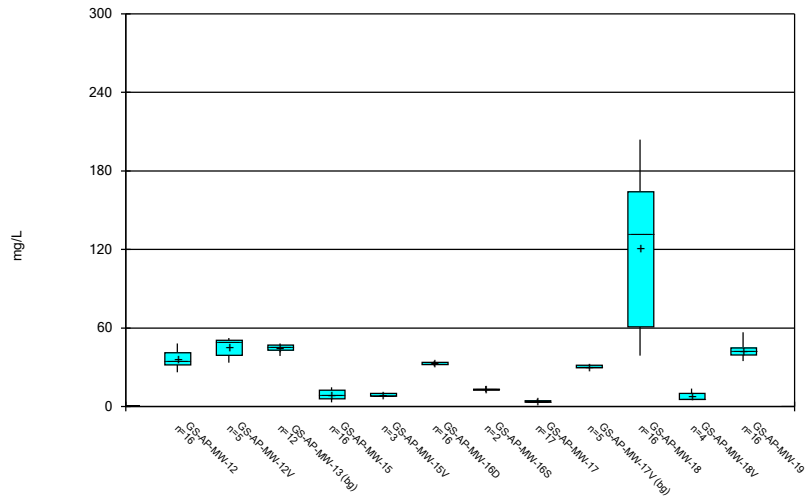
Constituent: Cadmium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



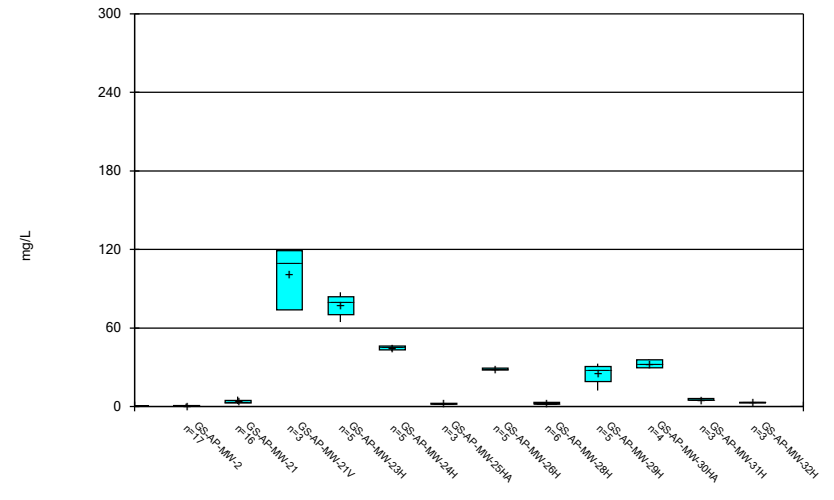
Constituent: Cadmium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



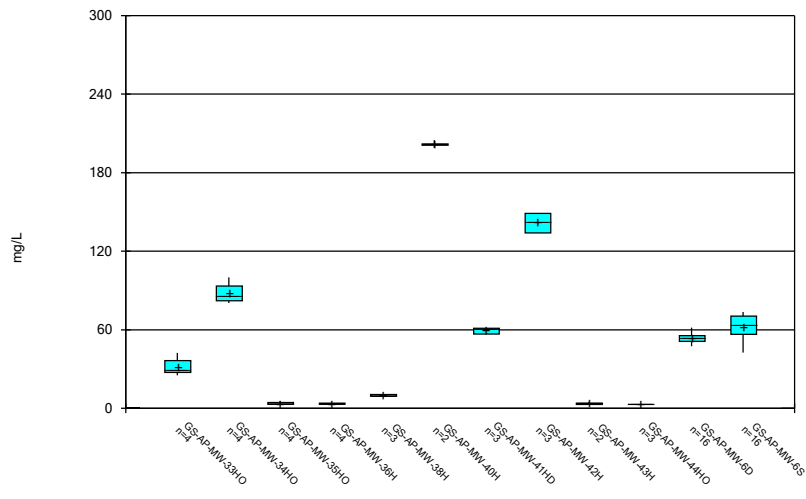
Constituent: Calcium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



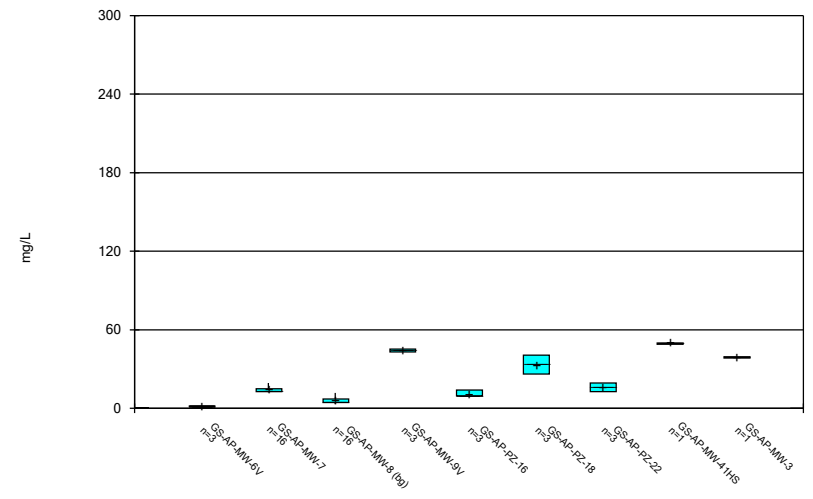
Constituent: Calcium Analysis Run 5/24/2021 1:32 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



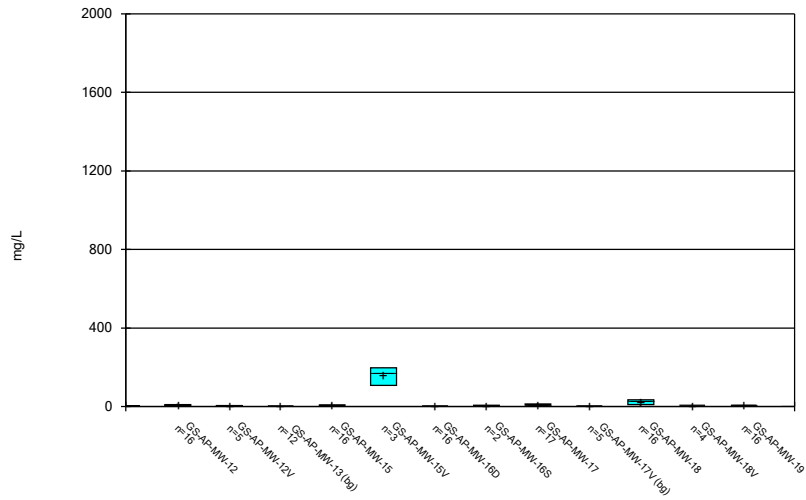
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Box & Whiskers Plot



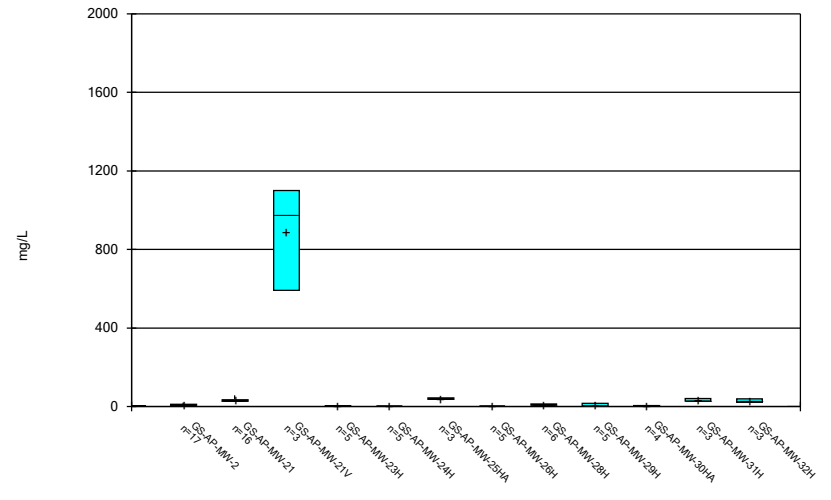
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



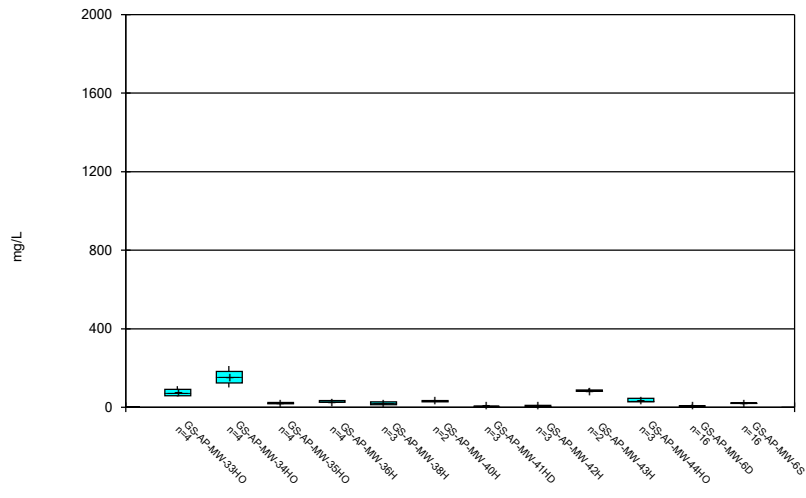
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Box & Whiskers Plot



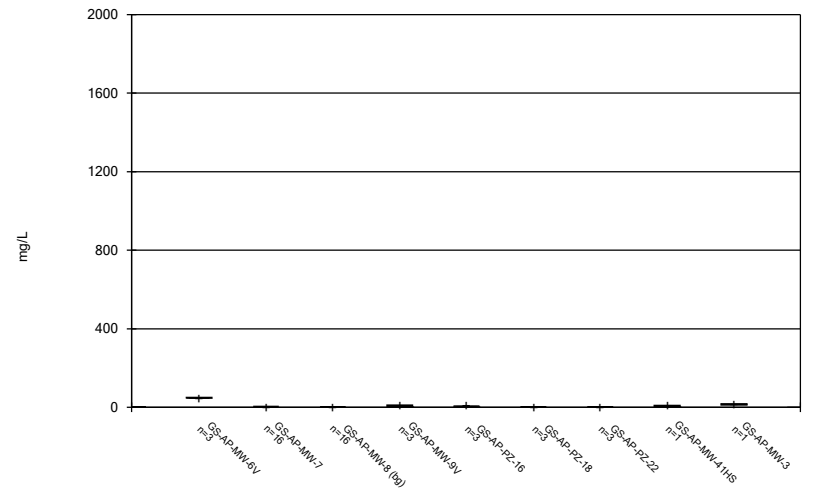
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Box & Whiskers Plot



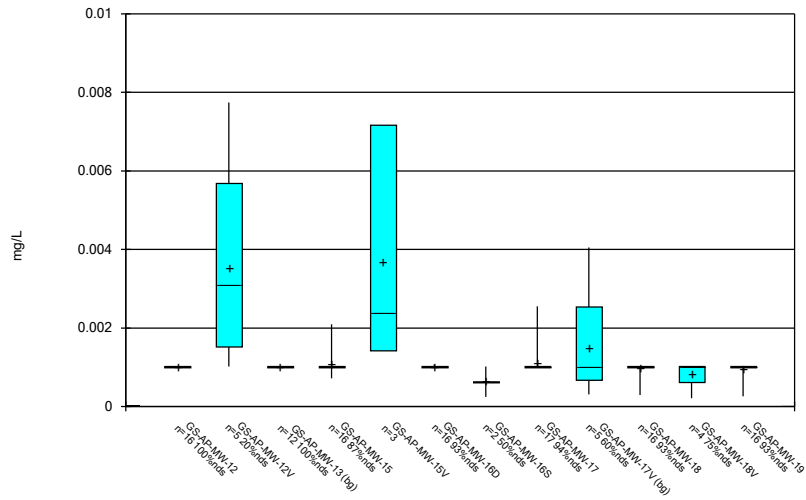
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Box & Whiskers Plot



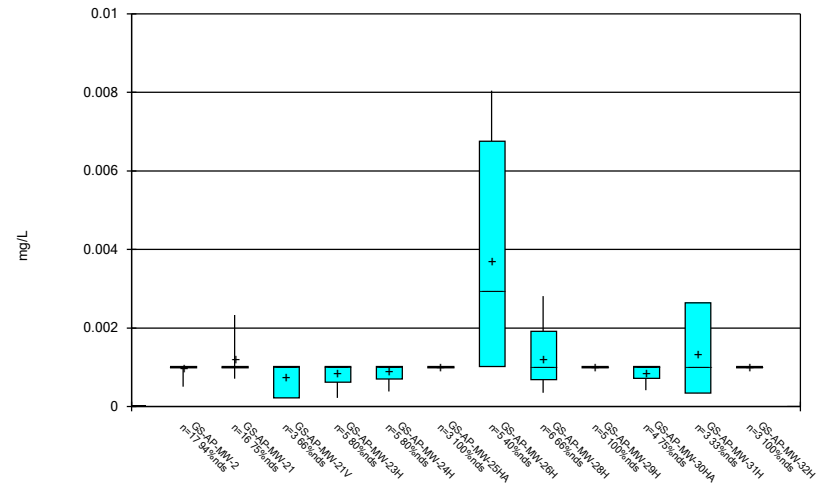
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Box & Whiskers Plot



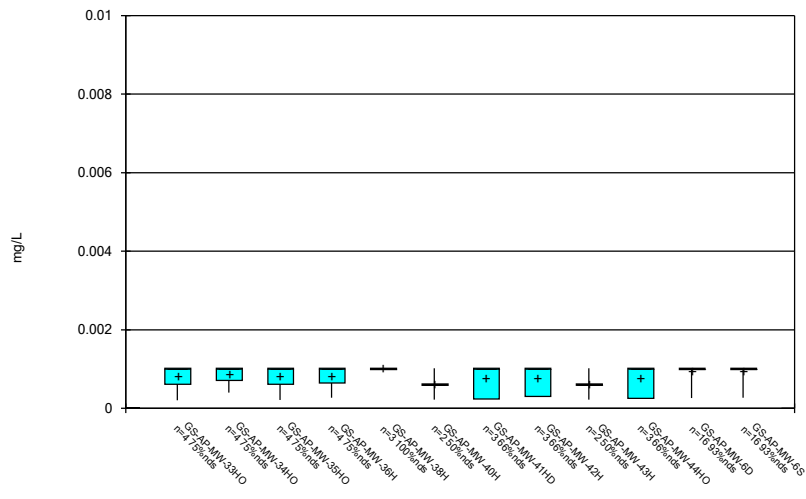
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Box & Whiskers Plot



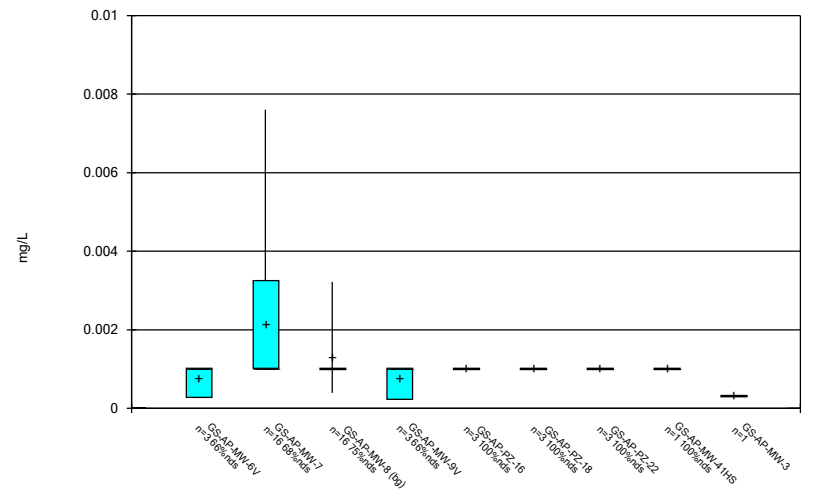
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Box & Whiskers Plot



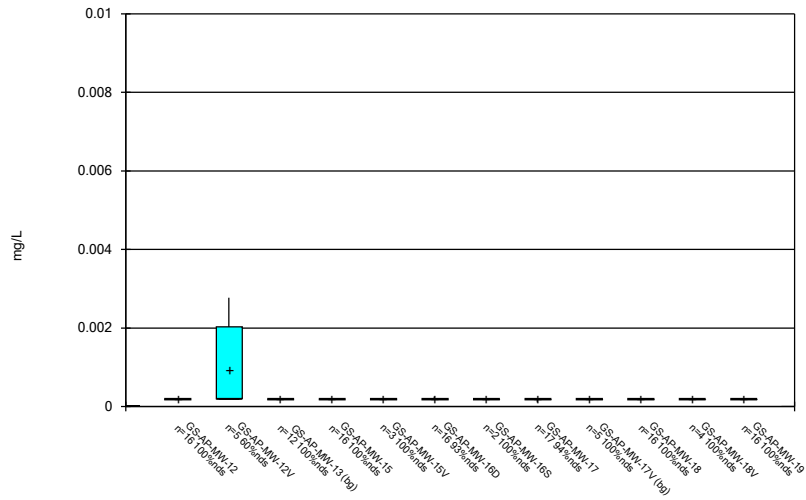
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Box & Whiskers Plot



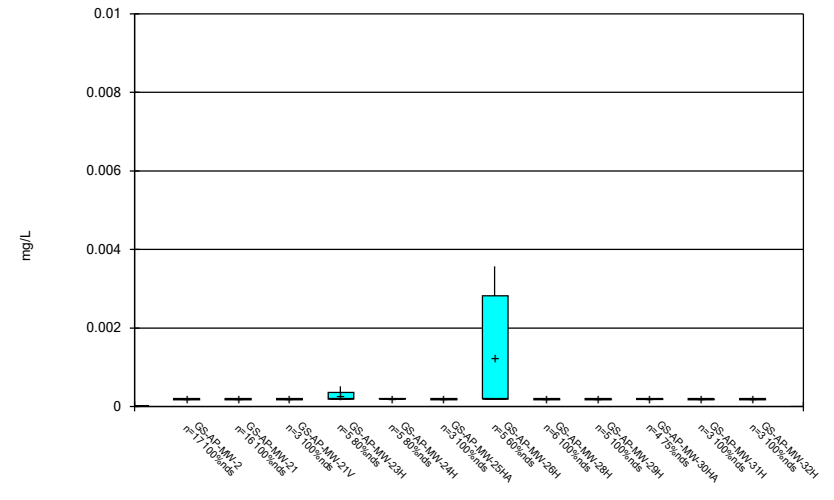
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Box & Whiskers Plot



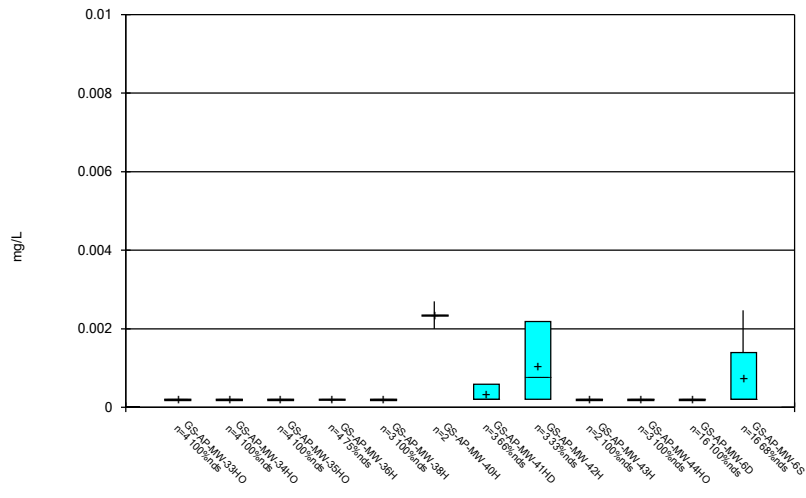
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Box & Whiskers Plot



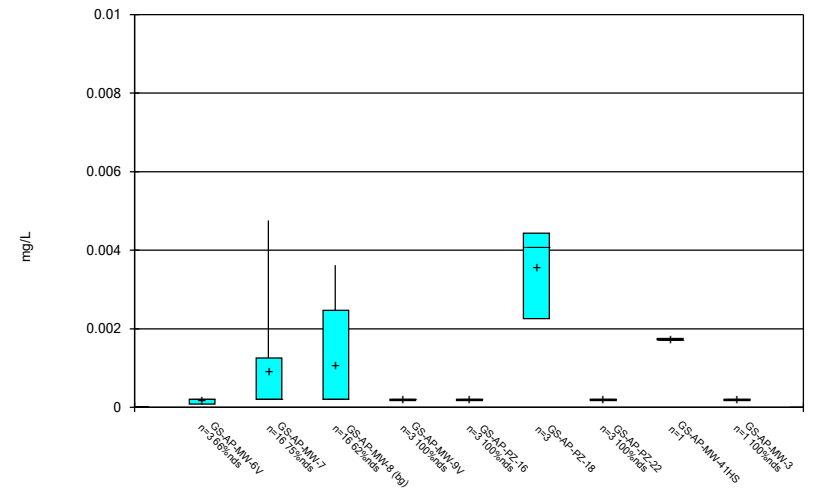
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Box & Whiskers Plot



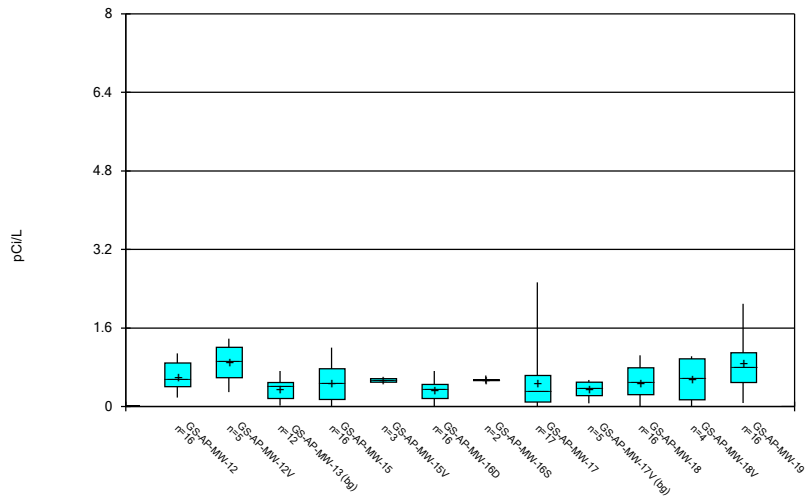
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Box & Whiskers Plot



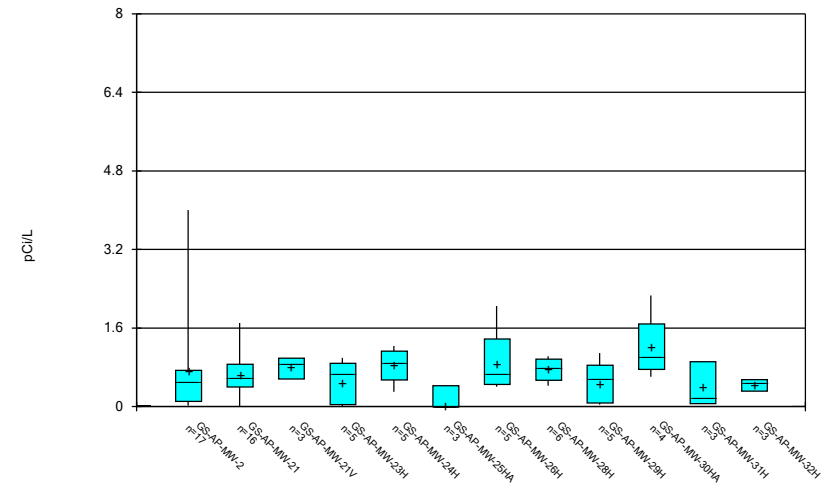
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Box & Whiskers Plot



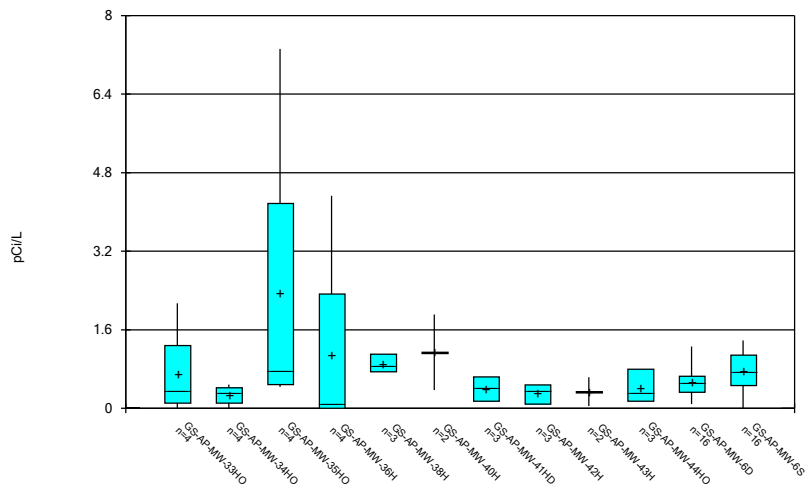
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Box & Whiskers Plot



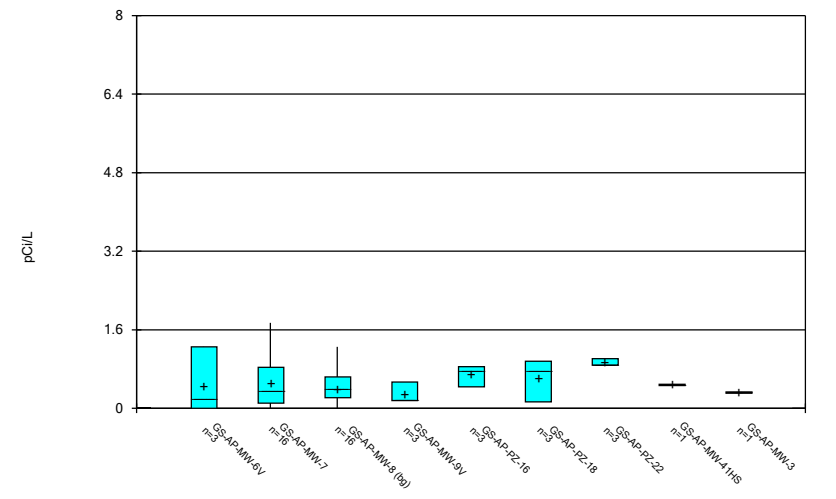
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Box & Whiskers Plot



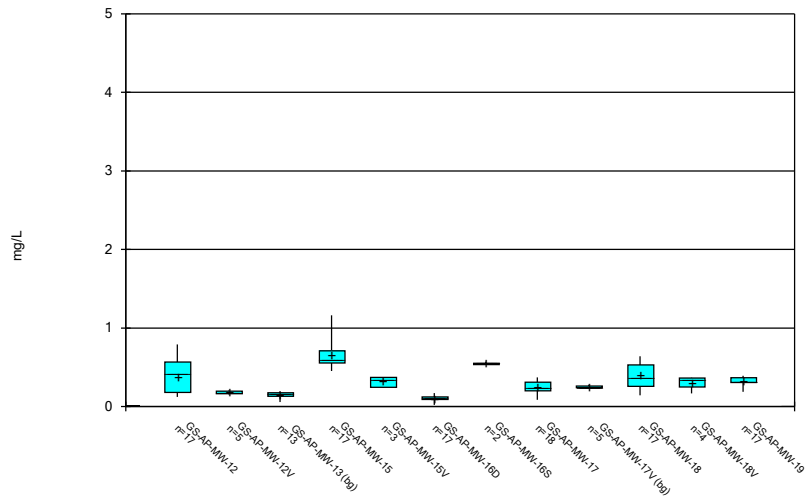
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



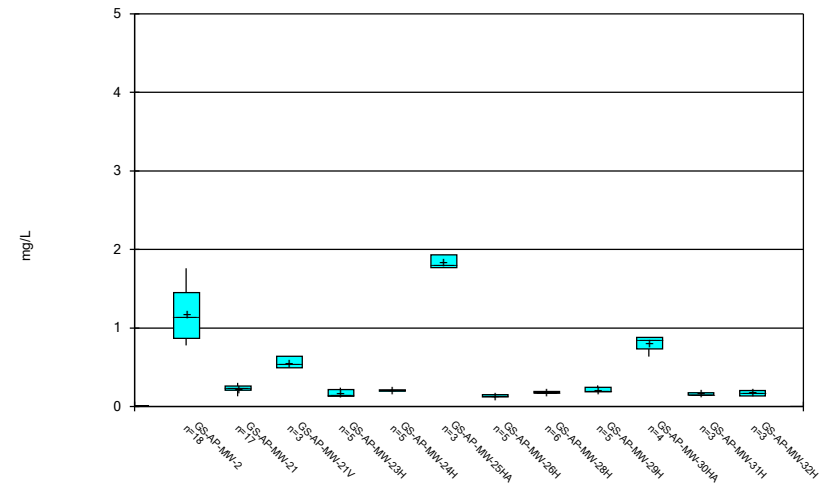
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Box & Whiskers Plot



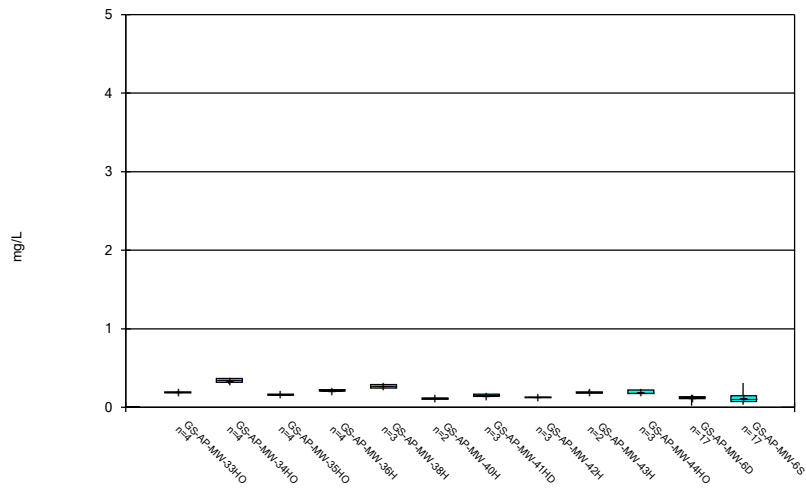
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Box & Whiskers Plot



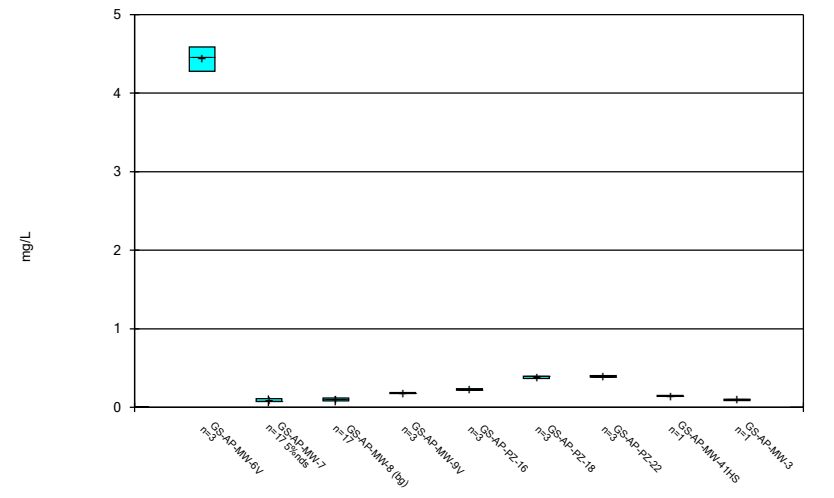
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Box & Whiskers Plot



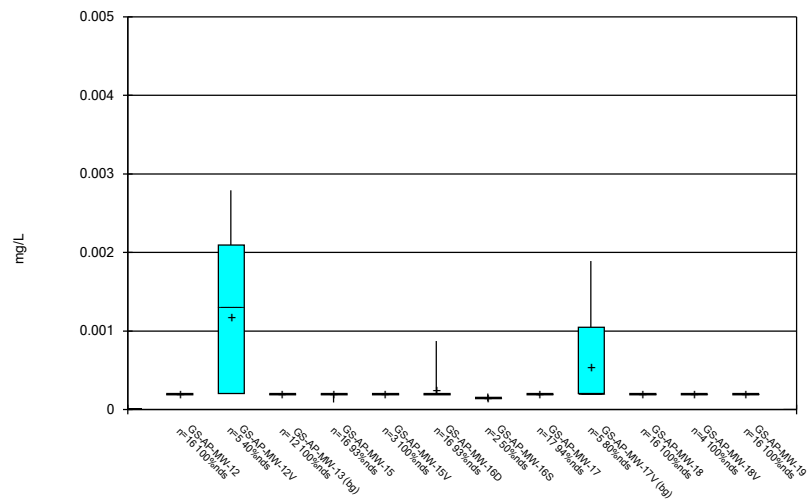
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Box & Whiskers Plot



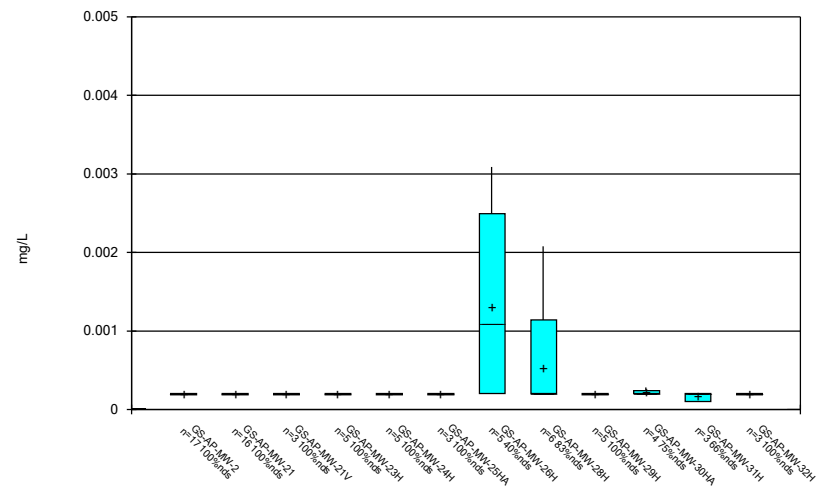
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Box & Whiskers Plot



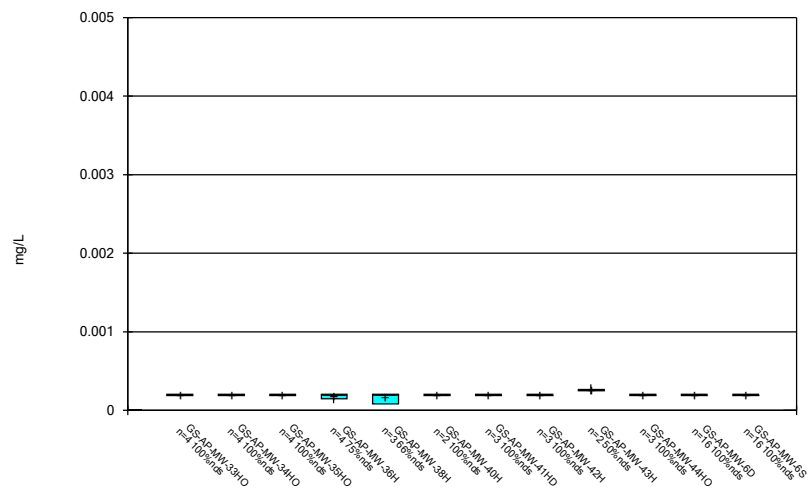
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Box & Whiskers Plot



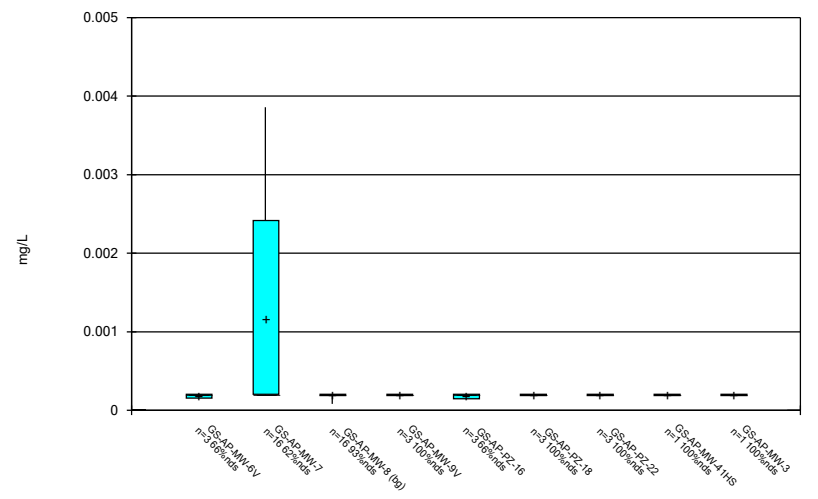
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Box & Whiskers Plot



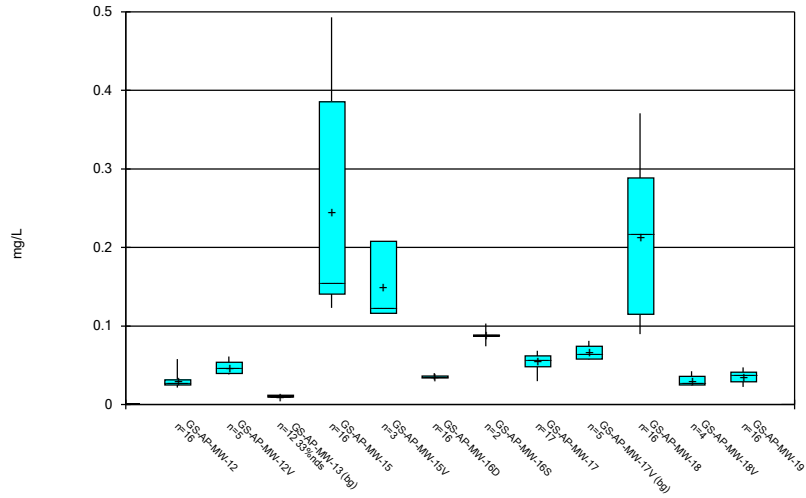
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Box & Whiskers Plot



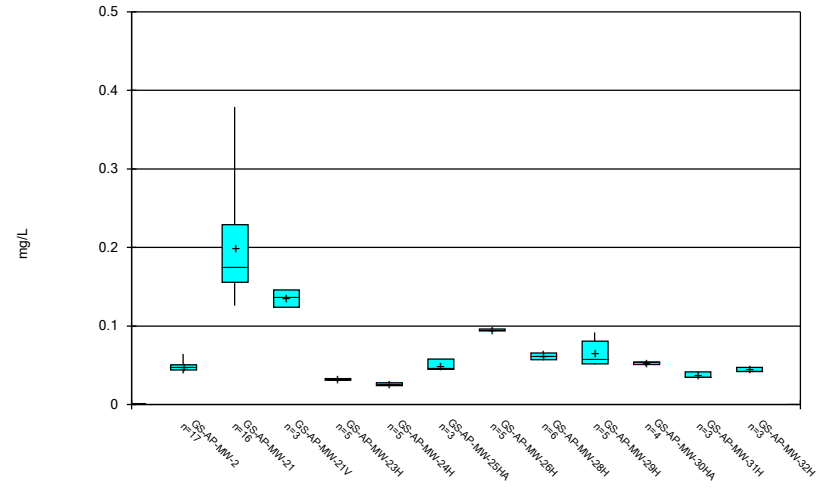
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Box & Whiskers Plot



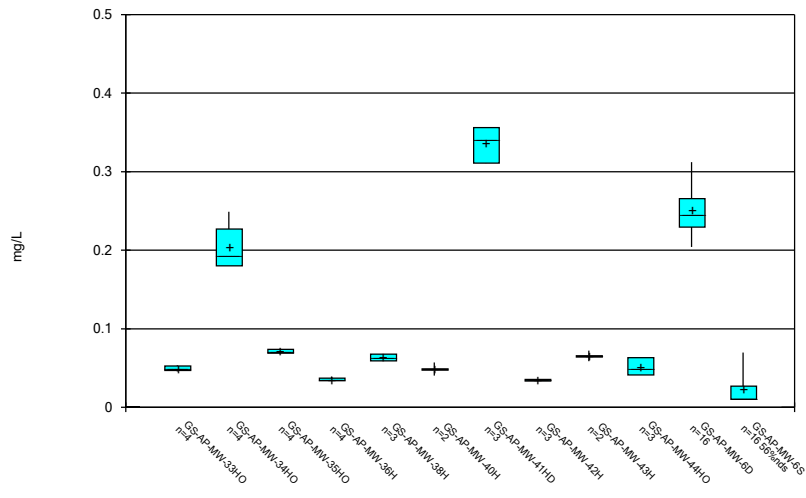
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Box & Whiskers Plot



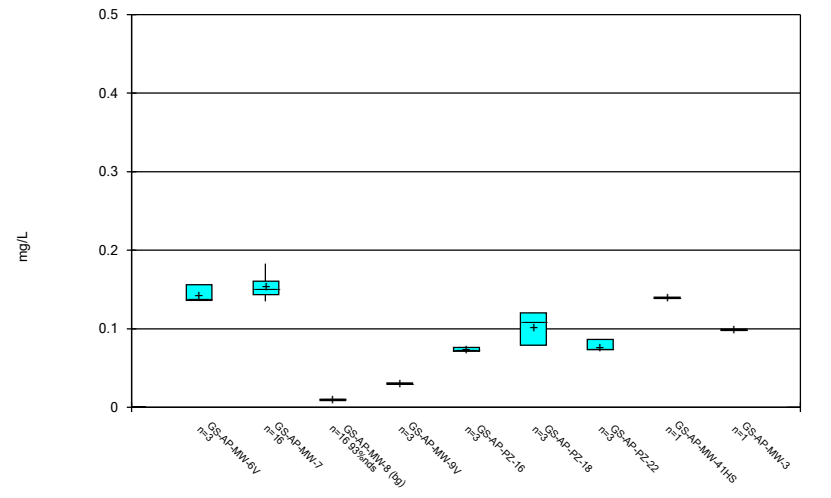
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Box & Whiskers Plot



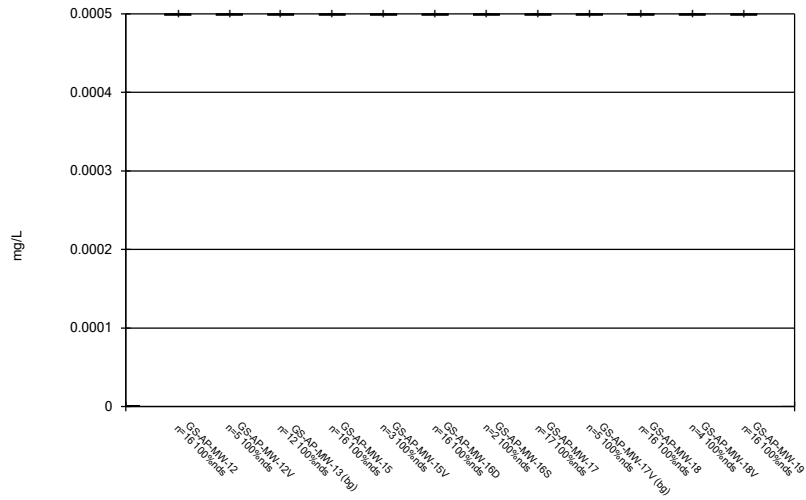
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Box & Whiskers Plot



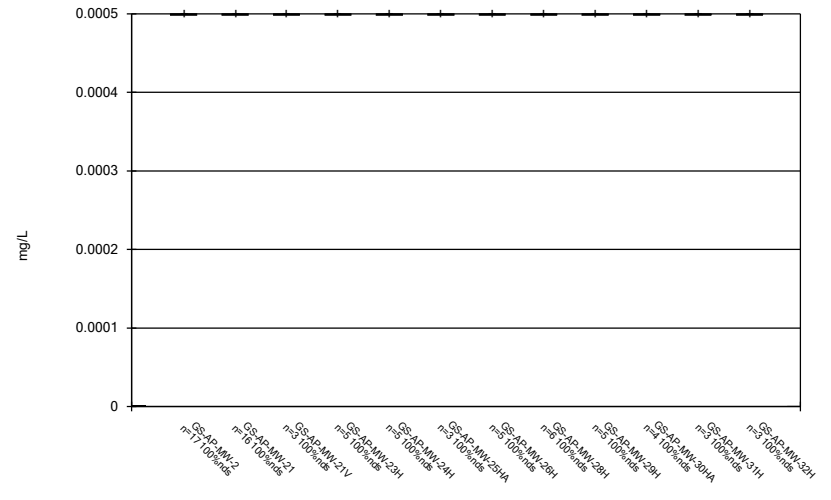
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Box & Whiskers Plot



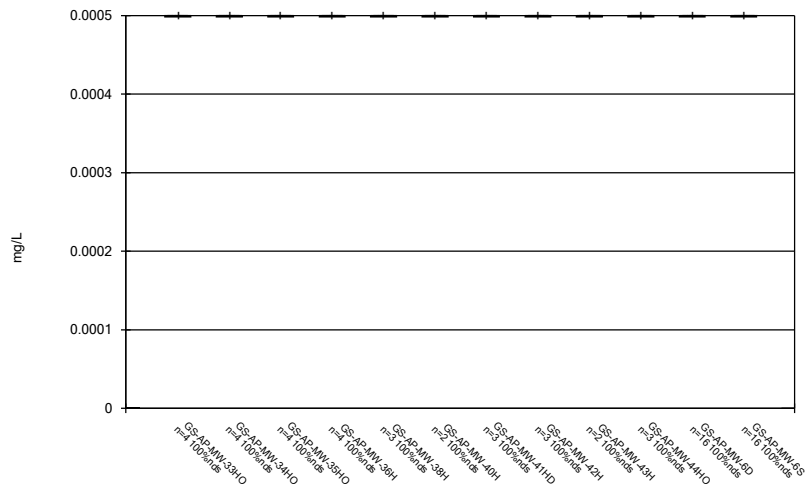
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Box & Whiskers Plot



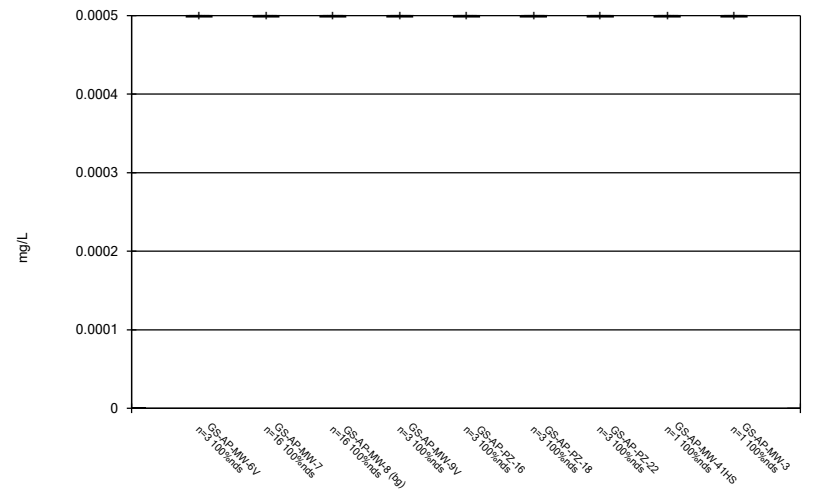
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Box & Whiskers Plot



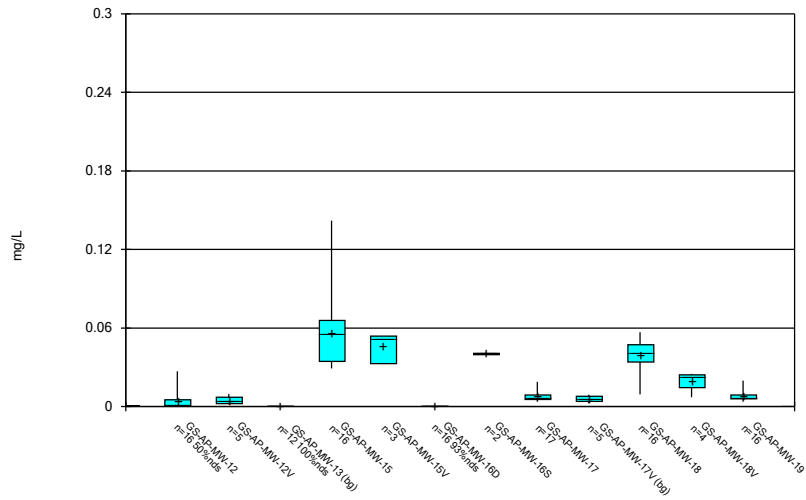
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Box & Whiskers Plot



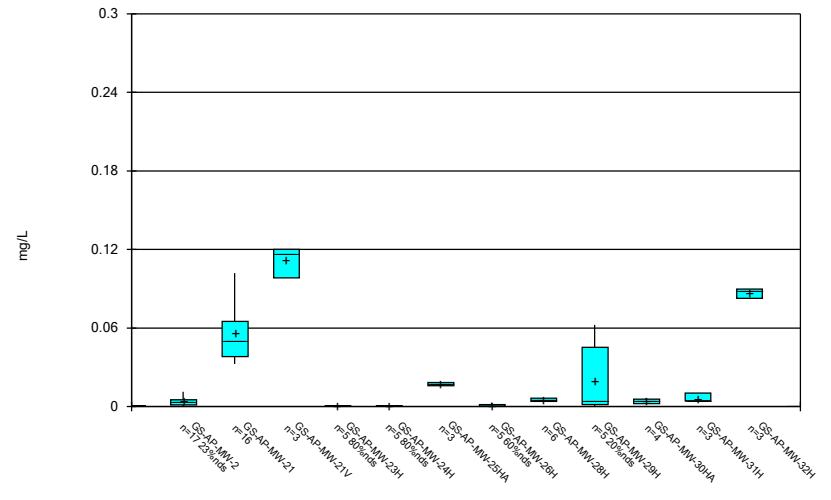
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Box & Whiskers Plot



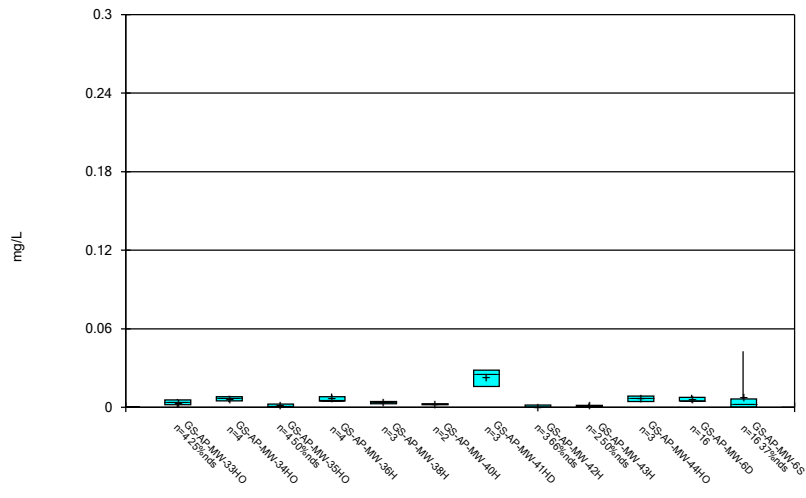
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Box & Whiskers Plot



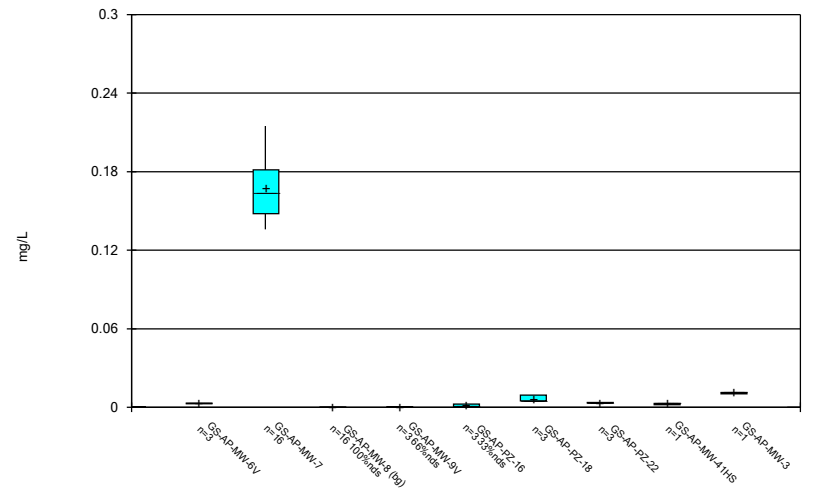
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Box & Whiskers Plot



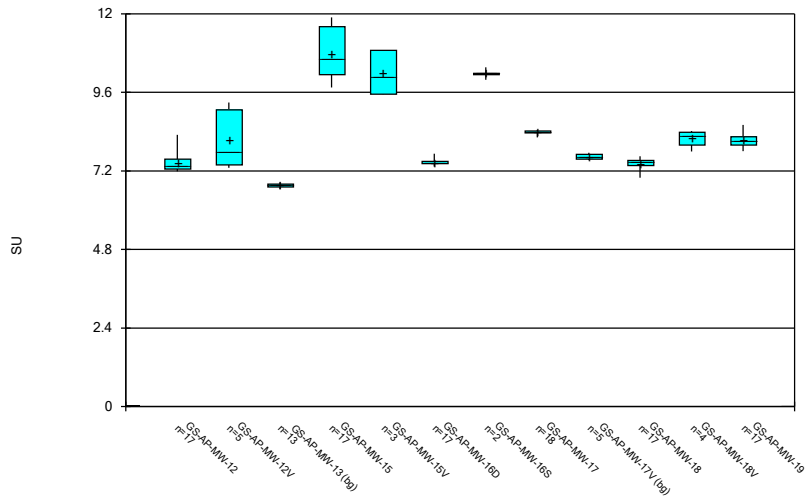
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Box & Whiskers Plot



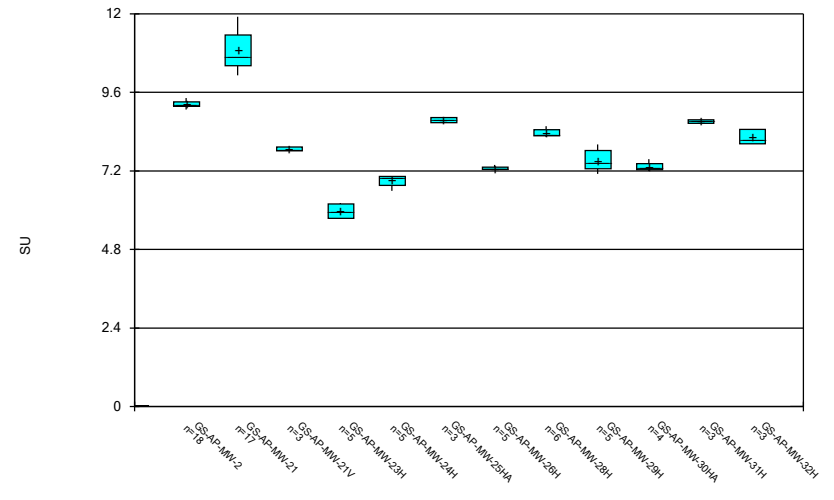
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Box & Whiskers Plot



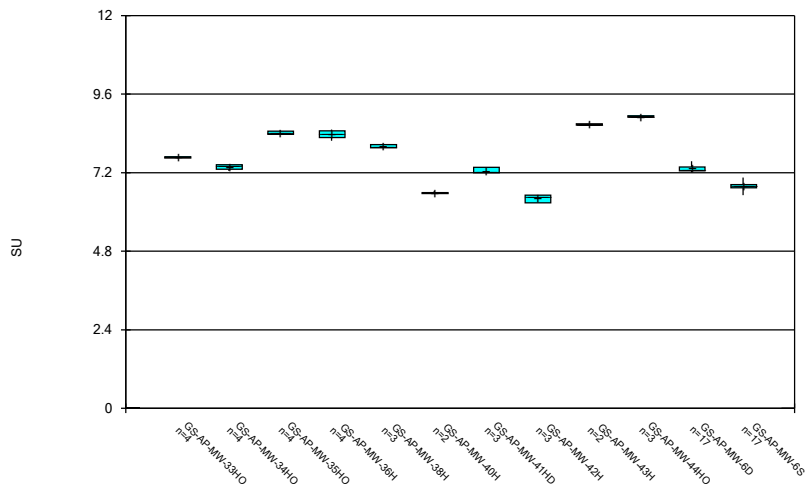
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Box & Whiskers Plot



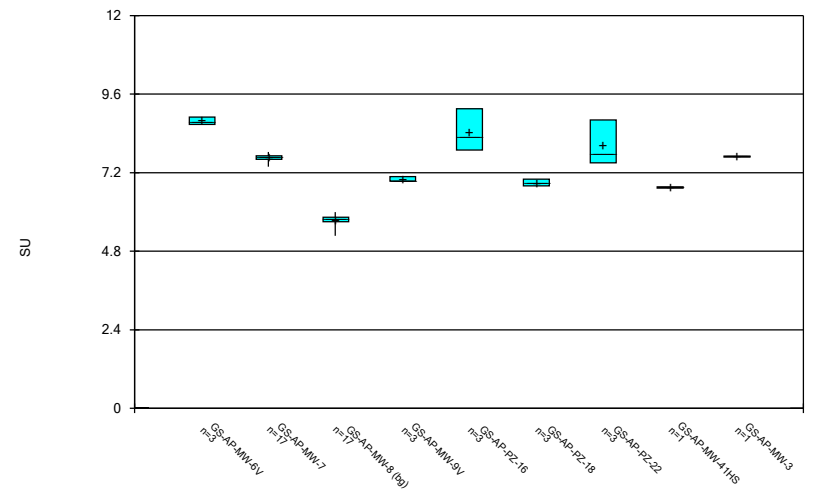
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Box & Whiskers Plot



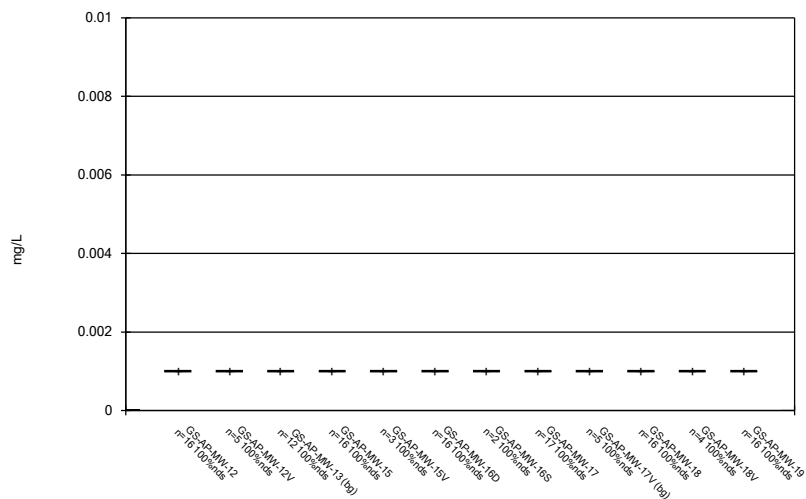
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Box & Whiskers Plot



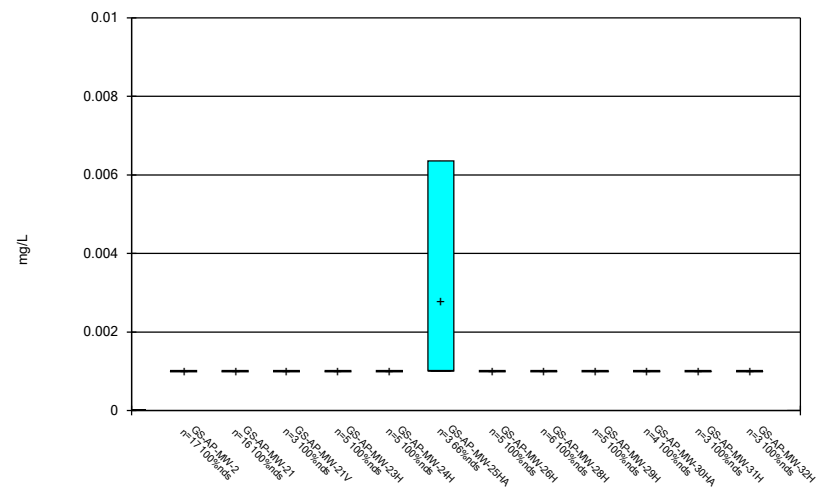
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



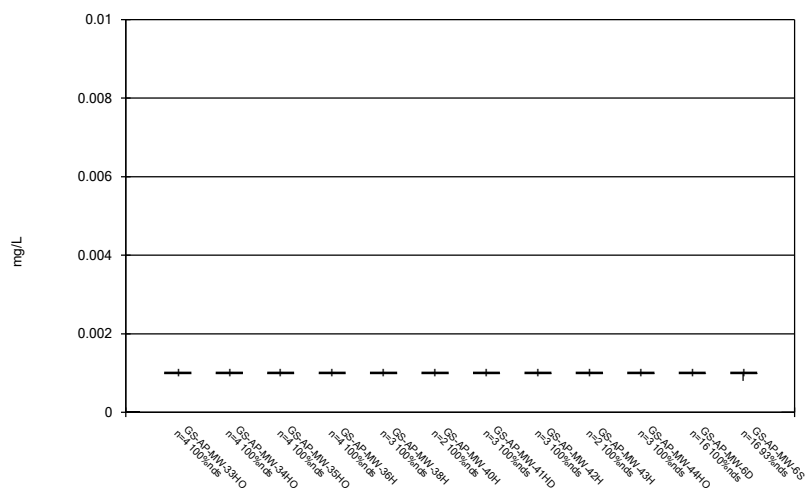
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



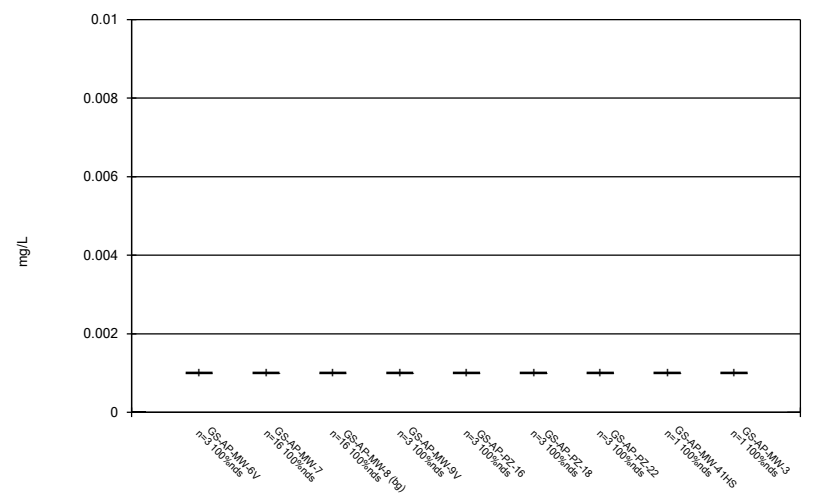
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Box & Whiskers Plot



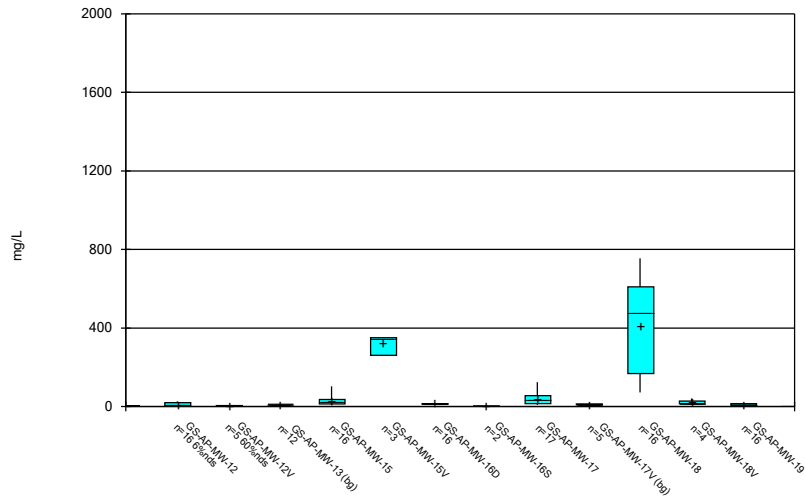
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Box & Whiskers Plot



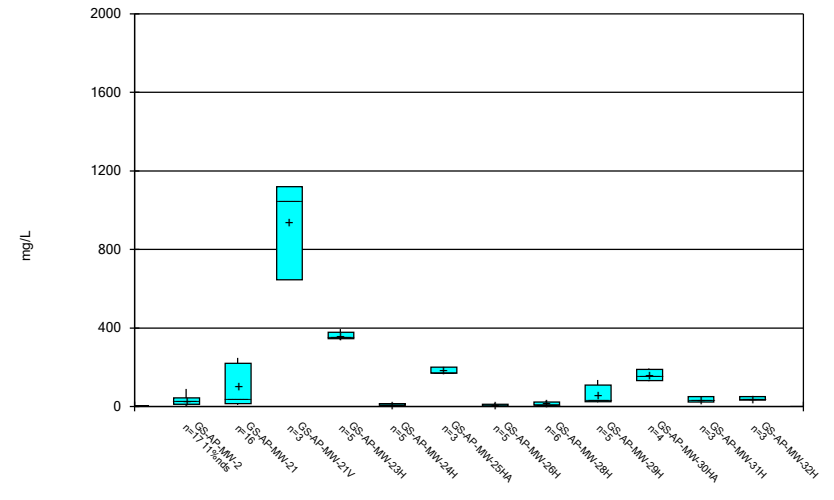
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Box & Whiskers Plot



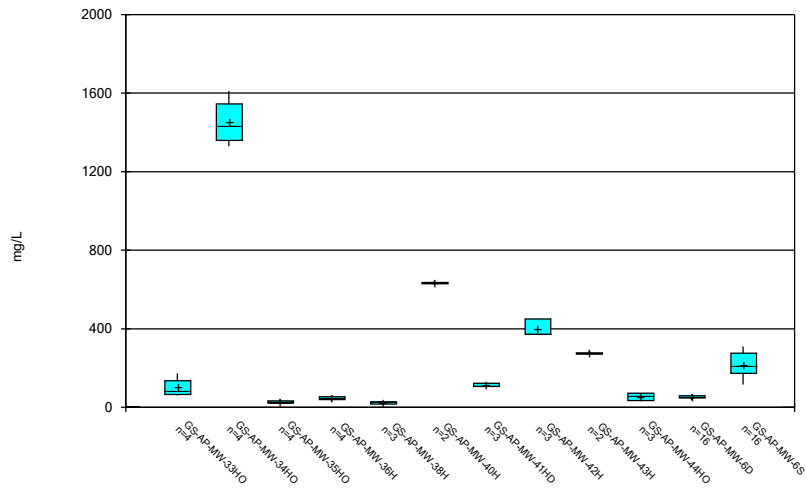
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Box & Whiskers Plot



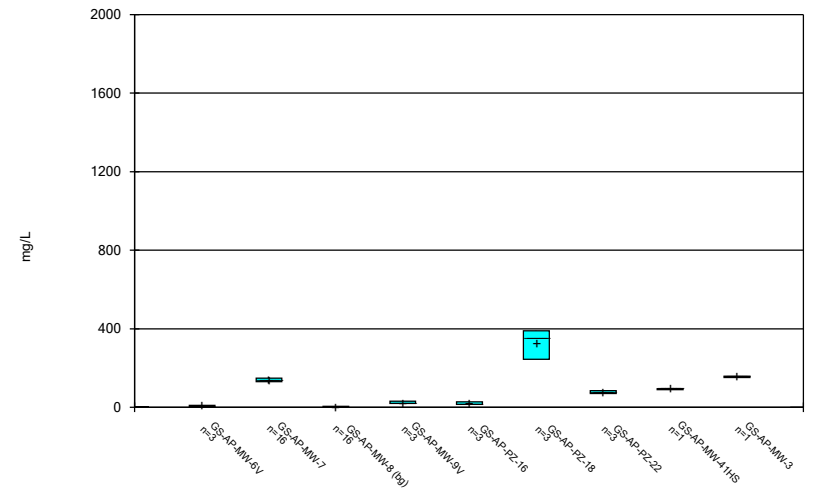
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Box & Whiskers Plot



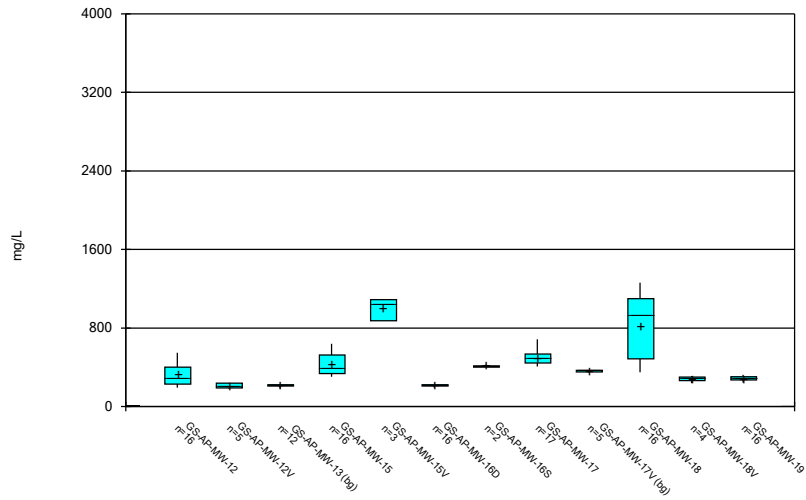
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Box & Whiskers Plot



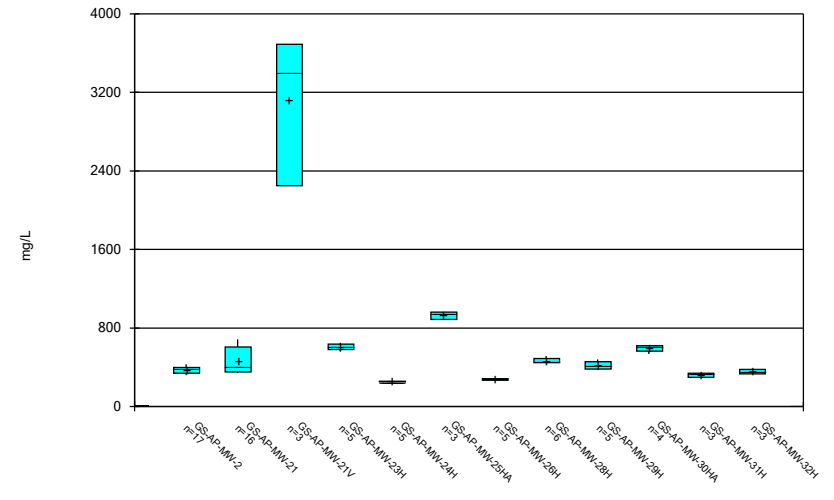
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Box & Whiskers Plot



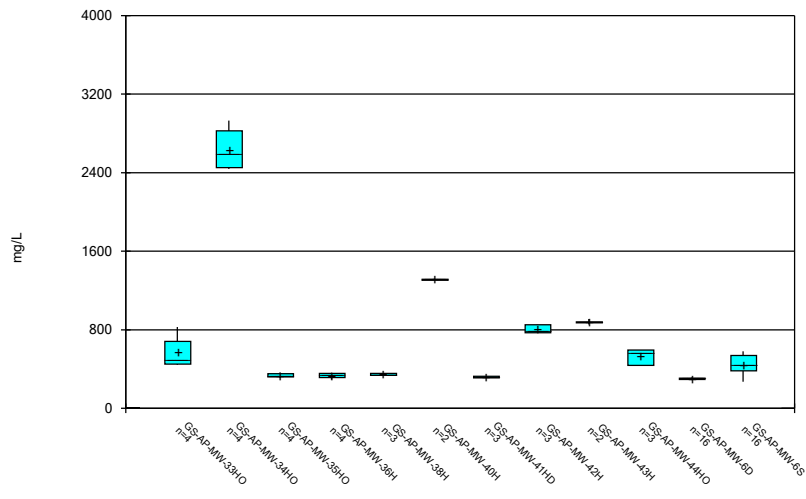
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Box & Whiskers Plot



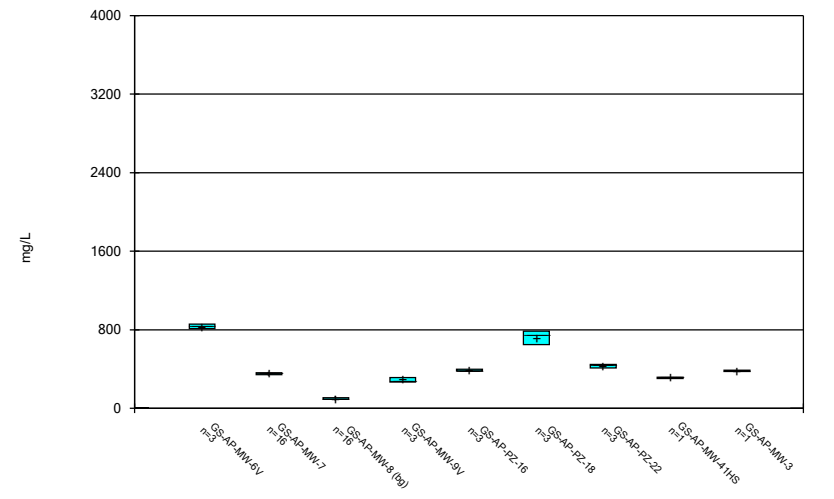
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Box & Whiskers Plot



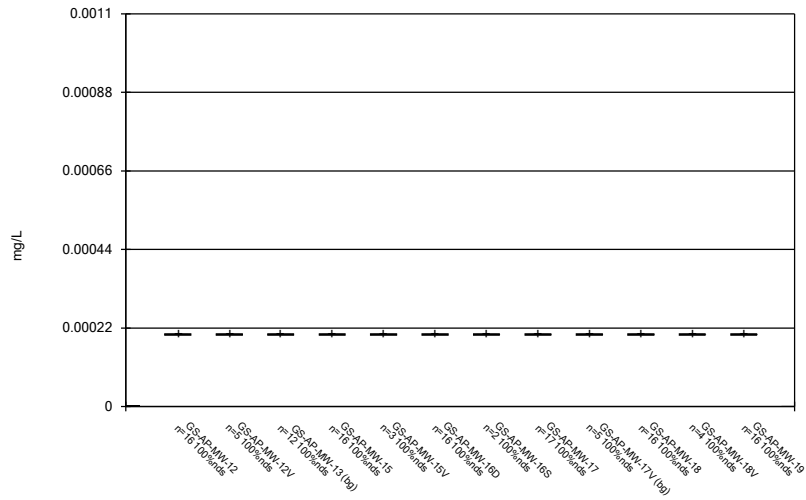
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Box & Whiskers Plot



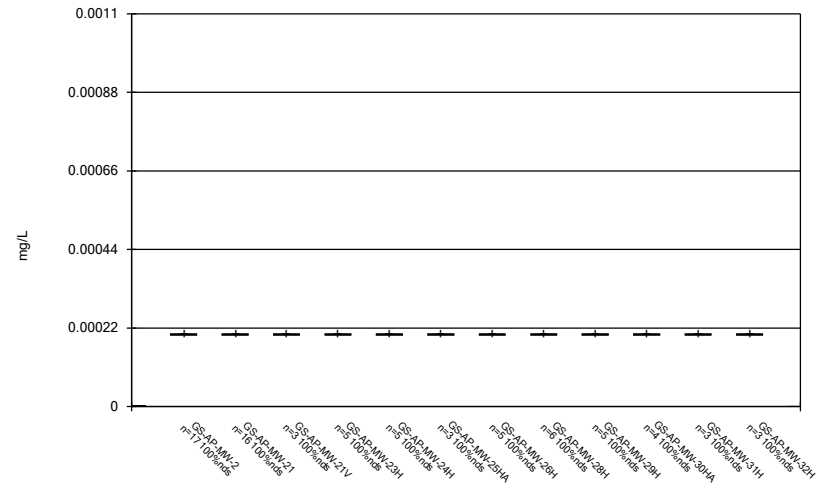
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



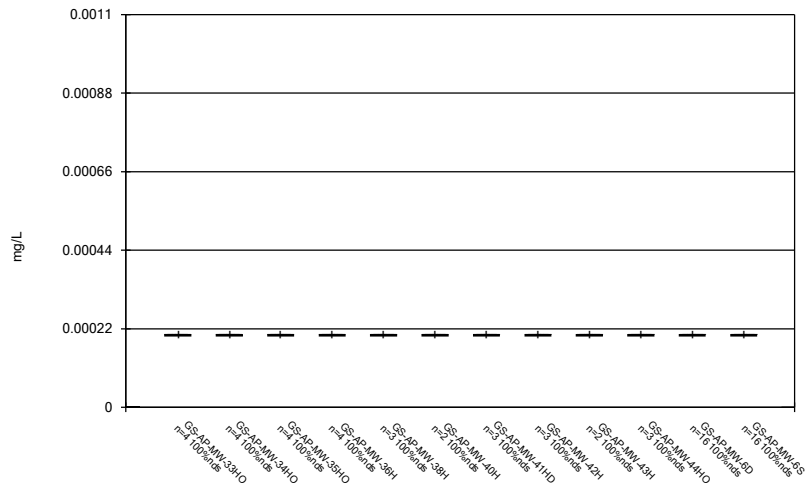
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Box & Whiskers Plot



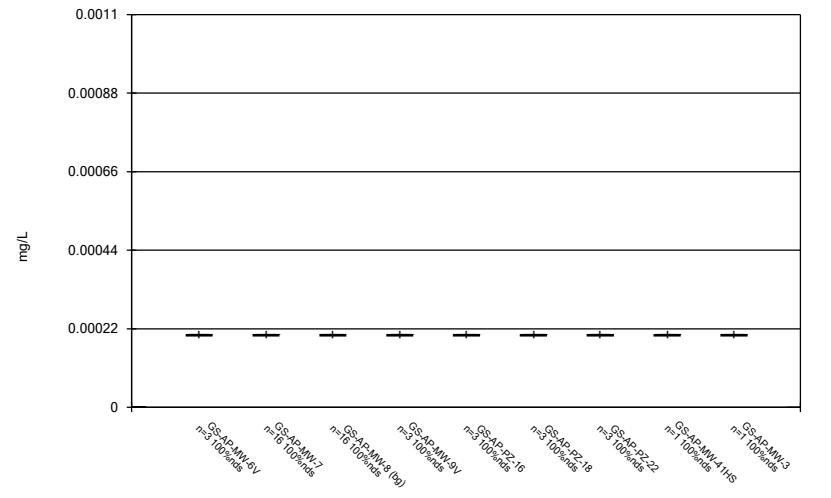
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Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/24/2021 1:33 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/24/2021 1:33 PM View: Descriptive
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

FIGURE C.

Outlier Summary

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 11:16 AM

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 5/22/2021, 10:37 AM

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-18	0.1015	n/a	2/8/2021	0.546	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-2	0.1015	n/a	2/1/2021	0.13	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	2/3/2021	1.24	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1015	n/a	2/3/2021	0.817	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	2/2/2021	1.6	Yes	33	n/a	n/a	81.82	n/a	n/a	0.001585	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	2/8/2021	56.8	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	2/3/2021	56.9	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	2/3/2021	50.7	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.154	n/a	2/9/2021	6.12	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.154	n/a	2/2/2021	10.2	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-18	4.154	n/a	2/8/2021	5.48	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.154	n/a	2/8/2021	6	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.154	n/a	2/1/2021	8.42	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.154	n/a	2/8/2021	39.8	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.154	n/a	2/3/2021	12.2	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	4.154	n/a	2/3/2021	14.9	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.154	n/a	2/2/2021	6.76	Yes	33	3.328	0.3873	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.2689	n/a	2/9/2021	0.591	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.2689	n/a	2/2/2021	0.276	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-18	0.2689	n/a	2/8/2021	0.485	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.2689	n/a	2/8/2021	0.319	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2689	n/a	2/1/2021	0.865	Yes	35	0.1369	0.06232	0	None	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.27	2/9/2021	11.88	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.27	2/2/2021	8.43	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-19	7.76	5.27	2/8/2021	7.89	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-2	7.76	5.27	2/1/2021	9.31	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.27	2/8/2021	10.69	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	7.76	5.27	2/2/2021	7.77	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	2/1/2021	18.7	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-16D	15.2	n/a	2/10/2021	15.8	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	15.2	n/a	2/2/2021	55.1	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-18	15.2	n/a	2/8/2021	72.6	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	15.2	n/a	2/8/2021	16.2	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	2/1/2021	21.3	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	2/8/2021	232	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	2/3/2021	58.9	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	15.2	n/a	2/3/2021	116	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	2/2/2021	130	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	2/9/2021	616	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	2/2/2021	548	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-18	368	n/a	2/8/2021	384	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	2/8/2021	684	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2

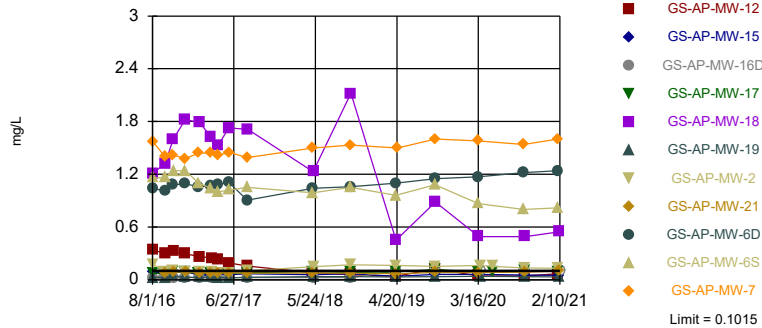
Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:37 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (SU)	GS-AP-MW-2	7.76	5.27	2/1/2021	9.31	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.27	2/8/2021	10.69	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6D	7.76	5.27	2/3/2021	7.55	No	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6S	7.76	5.27	2/3/2021	7.05	No	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	7.76	5.27	2/2/2021	7.77	Yes	35	n/a	n/a	0	n/a	n/a	0.002814	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	2/1/2021	18.7	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	15.2	n/a	2/9/2021	10.6	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-16D	15.2	n/a	2/10/2021	15.8	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	15.2	n/a	2/2/2021	55.1	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-18	15.2	n/a	2/8/2021	72.6	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	15.2	n/a	2/8/2021	16.2	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	2/1/2021	21.3	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	2/8/2021	232	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	2/3/2021	58.9	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	15.2	n/a	2/3/2021	116	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	2/2/2021	130	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-12	368	n/a	2/1/2021	224	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	2/9/2021	616	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-16D	368	n/a	2/10/2021	224	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	2/2/2021	548	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-18	368	n/a	2/8/2021	384	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-19	368	n/a	2/8/2021	324	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	368	n/a	2/1/2021	333	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	2/8/2021	684	Yes	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	368	n/a	2/3/2021	301	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6S	368	n/a	2/3/2021	274	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	368	n/a	2/2/2021	349	No	33	n/a	n/a	0	n/a	n/a	0.001585	NP Inter (normality) 1 of 2

Exceeds Limit: GS-AP-MW-18, GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-6S, GS-AP-MW-7

Prediction Limit
Interwell Non-parametric

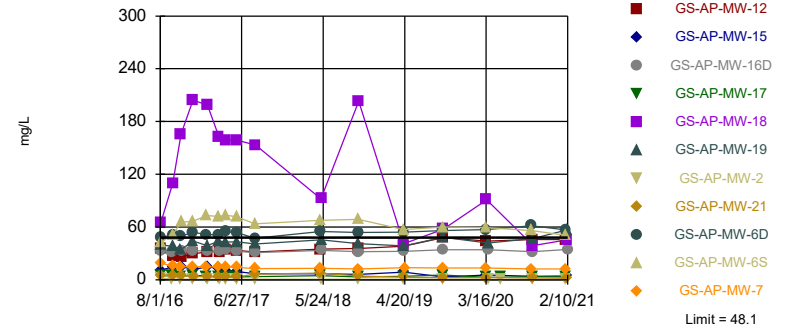


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 33 background values. 81.82% NDs. Annual per-constituent alpha = 0.0343. Individual comparison alpha = 0.001585 (1 of 2). Comparing 11 points to limit.

Constituent: Boron Analysis Run 5/22/2021 10:33 AM View: PLS
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-19, GS-AP-MW-6D, GS-AP-MW-6S

Prediction Limit
Interwell Non-parametric

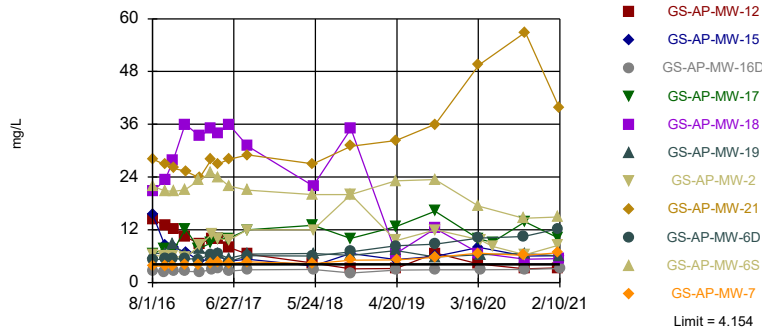


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 33 background values. Annual per-constituent alpha = 0.0343. Individual comparison alpha = 0.001585 (1 of 2). Comparing 11 points to limit.

Constituent: Calcium Analysis Run 5/22/2021 10:33 AM View: PLS
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D,...

Prediction Limit
Interwell Parametric

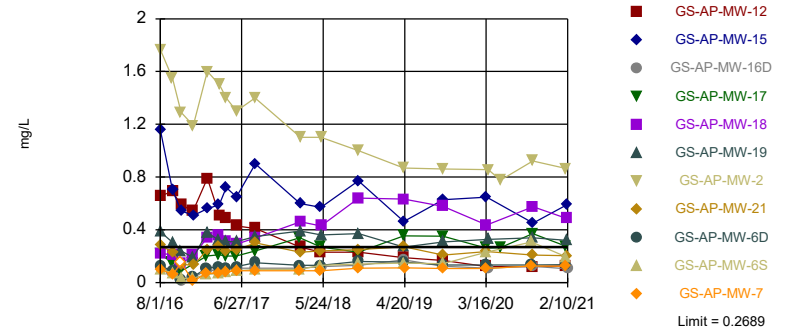


Background Data Summary: Mean=3.328, Std. Dev.=0.3873, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9722, critical = 0.906. Kappa = 2.134 (c=7, w=11, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006839. Comparing 11 points to limit.

Constituent: Chloride Analysis Run 5/22/2021 10:33 AM View: PLS
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2

Prediction Limit
Interwell Parametric

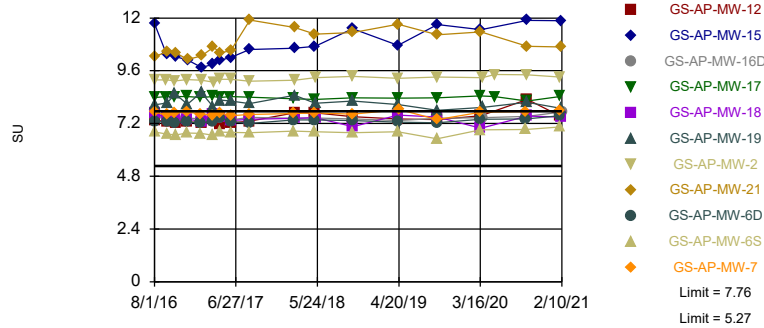


Background Data Summary: Mean=0.1369, Std. Dev.=0.06232, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9566, critical = 0.91. Kappa = 2.119 (c=7, w=11, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006839. Comparing 11 points to limit.

Constituent: Fluoride Analysis Run 5/22/2021 10:33 AM View: PLS
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limits: GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-7

Prediction Limit
Interwell Non-parametric

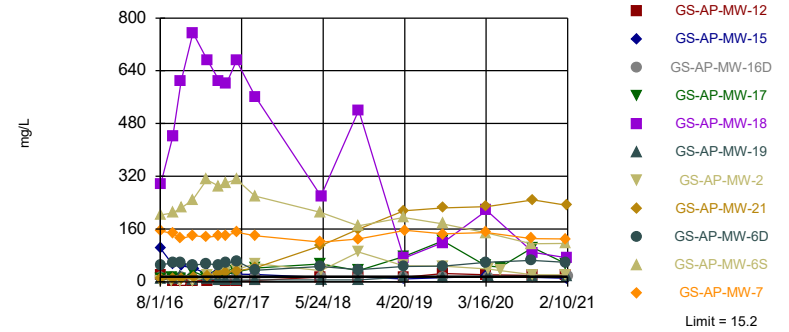


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 35 background values. Annual per-constituent alpha = 0.06099. Individual comparison alpha = 0.002814 (1 of 2). Comparing 11 points to limit.

Constituent: pH Analysis Run 5/22/2021 10:33 AM View: PLS
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-12, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21,...

Prediction Limit
Interwell Non-parametric

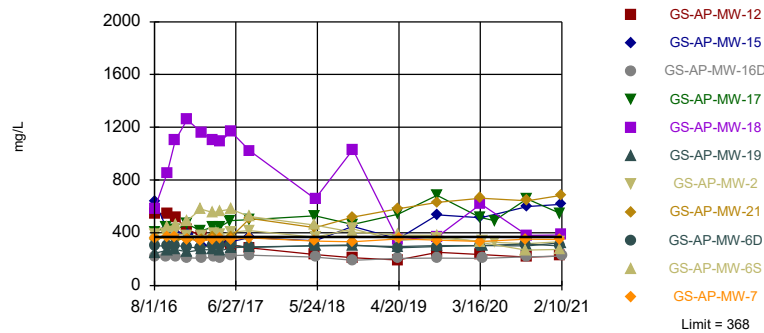


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 33 background values. Annual per-constituent alpha = 0.0343. Individual comparison alpha = 0.001585 (1 of 2). Comparing 11 points to limit.

Constituent: Sulfate Analysis Run 5/22/2021 10:33 AM View: PLS
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-21

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 33 background values. Annual per-constituent alpha = 0.0343. Individual comparison alpha = 0.001585 (1 of 2). Comparing 11 points to limit.

Constituent: TDS Analysis Run 5/22/2021 10:33 AM View: PLS
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-15	GS-AP-MW-19	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-7	GS-AP-MW-18	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-6S
8/1/2016	0.0955 (J)	0.0279 (J)	0.0266 (J)	0.0712 (J)					
8/2/2016					1.57	1.21	0.178	<0.1015	
8/3/2016									1.16
9/19/2016			0.0262 (J)	0.0716 (J)			0.0937 (J)		
9/20/2016	0.0706 (J)							<0.1015	1.16
9/21/2016		0.0235 (J)			1.4	1.32			
10/24/2016		0.0444 (J)		0.0858 (J)	1.42	1.6	0.0986 (J)		
10/25/2016	0.0849 (J)		0.0273 (J)					<0.1015	
10/26/2016									1.24
12/12/2016					1.38	1.82			1.24
12/13/2016		0.0285 (J)	0.0258 (J)	0.0875 (J)			0.0965 (J)	<0.1015	
12/14/2016	0.0914 (J)								
2/6/2017				0.0729 (J)	1.44				1.1
2/7/2017		0.03 (J)							
2/8/2017	0.0524 (J)		0.0249 (J)			1.79	0.0896 (J)	<0.1015	
3/27/2017				0.0706 (J)					1.04
3/28/2017	0.0532 (J)	0.0309 (J)			1.44	1.62			
3/29/2017			0.0247 (J)					<0.1015	
3/30/2017							0.0871 (J)		
4/24/2017				0.0737 (J)	1.41				1
4/26/2017	0.0598 (J)	0.0273 (J)	0.0264 (J)			1.53	0.0818 (J)	<0.1015	
6/5/2017				0.0767 (J)					
6/6/2017	0.0576 (J)	0.0212 (J)	0.0247 (J)			1.73	0.0805 (J)		1.02
6/7/2017					1.45			<0.1015	
8/21/2017					1.39		0.102		1.05
8/22/2017	0.0702 (J)	0.0294 (J)	0.0246 (J)	0.0786 (J)				<0.1015	
8/23/2017						1.71			
5/14/2018									0.99
5/15/2018	0.0567 (J)			0.0953 (J)	1.5			<0.1015	
5/16/2018		0.0356 (J)	0.0247 (J)			1.23	0.147		
10/15/2018	0.07 (J)			0.0842 (J)	1.53				1.05
10/16/2018		0.0363 (J)				2.12	0.169		
10/17/2018			0.0251 (J)					<0.1015	
2/20/2019									
4/16/2019								<0.1015	0.961
4/17/2019	0.0388 (J)	0.0336 (J)	<0.1015	0.0916 (J)		0.449	0.165		
4/23/2019					1.5				
9/23/2019				0.116					1.08
9/24/2019	0.0607 (J)	0.0375 (J)	<0.1015		1.6	0.883			
9/25/2019							0.153		
3/16/2020				0.0894 (J)					
3/17/2020					1.58				0.867
3/18/2020	0.0596 (J)					0.492			
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					
9/22/2020		0.037 (J)	<0.1015				0.133		
9/23/2020	0.0537 (J)					0.491			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-15	GS-AP-MW-19	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-7	GS-AP-MW-18	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-6S
2/1/2021							0.13		
2/2/2021				0.0946 (J)	1.6				
2/3/2021									0.817
2/8/2021		0.0336 (J)				0.546			
2/9/2021	0.0521 (J)								
2/10/2021			<0.1015						

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-21	GS-AP-MW-17V ...
8/1/2016					
8/2/2016				0.176 (o)	
8/3/2016	1.04	0.0239 (J)	0.34		
9/19/2016					
9/20/2016	1.01		0.299		
9/21/2016		<0.1015		0.0723 (J)	
10/24/2016	1.08				
10/25/2016		<0.1015	0.323	0.0867 (J)	
10/26/2016					
12/12/2016	1.09				
12/13/2016		<0.1015	0.294		
12/14/2016				0.092 (J)	
2/6/2017	1.06	<0.1015			
2/7/2017					
2/8/2017			0.264	0.0803 (J)	
3/27/2017	1.07				
3/28/2017		<0.1015		0.0804 (J)	
3/29/2017			0.246		
3/30/2017					
4/24/2017	1.08	<0.1015			
4/26/2017			0.234	0.0801 (J)	
6/5/2017					
6/6/2017	1.11			0.0795 (J)	
6/7/2017		<0.1015	0.194		
8/21/2017	0.906	<0.1015			
8/22/2017			0.156		
8/23/2017				0.0764 (J)	
5/14/2018	1.04				
5/15/2018		<0.1015	0.0781 (J)	0.0769 (J)	
5/16/2018					
10/15/2018	1.06				
10/16/2018		<0.1015	0.057 (J)	0.0764 (J)	
10/17/2018					
2/20/2019					0.0337 (J)
4/16/2019	1.1	<0.1015	0.0385 (J)		
4/17/2019				0.0675 (J)	
4/23/2019					
9/23/2019	1.15				
9/24/2019		<0.1015		0.0843 (J)	0.0532 (J)
9/25/2019			0.122		
3/16/2020					
3/17/2020	1.17				
3/18/2020		<0.1015	0.0449 (J)	0.0824 (J)	
3/24/2020					
3/25/2020					0.0482 (J)
5/12/2020					
5/13/2020					
9/16/2020					
9/17/2020	1.22				
9/21/2020		<0.1015			
9/22/2020					
9/23/2020			0.0446 (J)	0.0871 (J)	0.0478 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-21	GS-AP-MW-17V ...
2/1/2021			0.0672 (J)		
2/2/2021		<0.1015		0.0396 (J)	
2/3/2021	1.24				
2/8/2021				0.0991 (J)	
2/9/2021					
2/10/2021					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
8/1/2016	39.6	4.52	33	10.5					
8/2/2016					64.2	2.25	5.29	19.4	47.2
8/3/2016									
9/19/2016		4.3	31.7			0.724			
9/20/2016				14.7					46.3
9/21/2016	38.1				110		4.51	15.4	
10/24/2016	34.7	4.02			166	0.635		14.8	
10/25/2016			32.2	14.7			4.92		46.6
10/26/2016									
12/12/2016					204			15	
12/13/2016	44	5.5	33.1			0.714			43.1
12/14/2016				11.9			3.5		
2/6/2017		3.79						14.9	
2/7/2017	39								
2/8/2017			32.7	14.4	199	0.722	3.75		47.5
3/27/2017		3.13							
3/28/2017	43.9			12.9	162		3.63	14.3	
3/29/2017			32.7						46.8
3/30/2017						0.686			
4/24/2017		3.41						14.5	
4/26/2017	42.8		33.8	10.4	159	0.646	3.3		48.1
6/5/2017		3.32							
6/6/2017	43.1		32.2	9.41	159	0.569	3.24		
6/7/2017								14.1	44.4
8/21/2017						0.634		12.6	
8/22/2017	40.7	3.52	30.9	6.89					42.9
8/23/2017					153		6.6		
5/14/2018									
5/15/2018		4.53		6.86			7.57	12.9	44.3
5/16/2018	45.3		33.5		92.1	0.588			
10/15/2018		3.38		6.28				12.5	
10/16/2018	40.9				203	0.714	4.4		
10/17/2018			32						41.8
2/20/2019									
4/16/2019									38.6
4/17/2019	38.4	3.86	32.3	8.53	40.9	0.511	2.88		
4/23/2019								13.8	
9/23/2019		5.43							
9/24/2019	48.4		34.3	3.26	57.4		2.47	13.4	
9/25/2019						0.581			
3/16/2020		3							
3/17/2020								13.5	
3/18/2020				5.25	90.9		2.35		
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							
9/22/2020	46.9		32			0.503			
9/23/2020				3.83	38.8		1.96		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
2/1/2021						0.517			
2/2/2021		3.3						12.2	
2/3/2021									
2/8/2021	56.8				45.6		1.95		
2/9/2021				4.38					
2/10/2021			34.6						

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
8/1/2016					
8/2/2016					
8/3/2016	48.1	42.5	6.85	36.1	
9/19/2016					
9/20/2016	51.2	51.1		27	
9/21/2016			11.7		
10/24/2016	49.5				
10/25/2016			10.8	26.1	
10/26/2016		65.6			
12/12/2016	54.3	66.5			
12/13/2016			5.86	29.4	
12/14/2016					
2/6/2017	51.2	73.1	9.76		
2/7/2017					
2/8/2017				31.9	
3/27/2017	51.4	71.9			
3/28/2017			5.28		
3/29/2017				31.8	
3/30/2017					
4/24/2017	54.7	73.5	6.89		
4/26/2017				34.6	
6/5/2017					
6/6/2017	53.9	71.8			
6/7/2017			3.58	33.4	
8/21/2017	47.3	63.5	3.38		
8/22/2017				31.5	
8/23/2017					
5/14/2018	54.8	67.5			
5/15/2018			4.25	34.8	
5/16/2018					
10/15/2018	53.9	68.9			
10/16/2018			3.21	35.6	
10/17/2018					
2/20/2019					30.6
4/16/2019	54	57.1	4.43	38.3	
4/17/2019					
4/23/2019					
9/23/2019	56.1	60			
9/24/2019			7.24		29.7
9/25/2019				48.1	
3/16/2020					
3/17/2020	57.2	59.3			
3/18/2020			4.51	44	
3/24/2020					
3/25/2020				31.1	
5/12/2020					
5/13/2020					
9/16/2020		55.9			
9/17/2020	61.5				
9/21/2020			5.19		
9/22/2020					
9/23/2020				45.9	29.3

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
2/1/2021				45.8	
2/2/2021			4.35		31.8
2/3/2021	56.9	50.7			
2/8/2021					
2/9/2021					
2/10/2021					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
8/1/2016	6.67	6.47	2.6	15.6					
8/2/2016					20.8	6.15	28.1	3.7	2.91
8/3/2016									
9/19/2016		7.78	2.51			5.98			
9/20/2016				8.6					2.94
9/21/2016	6.54				23.3		26.8	3.74	
10/24/2016	8.77	7.29			27.9	5.93		3.75	
10/25/2016			2.53	7.96			26		2.94
10/26/2016									
12/12/2016					36			4.06	
12/13/2016	6.16	12.2	2.53			5.7			2.93
12/14/2016				6.94			25.3		
2/6/2017		7.68						3.92	
2/7/2017	7.57								
2/8/2017			2.5	4.96	33.3	8.44	23.8		2.85
3/27/2017		9							
3/28/2017	5.9			5.2	35		28	4.3	
3/29/2017			2.9						3.4
3/30/2017						11			
4/24/2017		10						4.6	
4/26/2017	6.5		3.2	6	34	10	27		3.7
6/5/2017		10							
6/6/2017	5.5		2.6	4.9	36	9.6	28		
6/7/2017								4.3	3.3
8/21/2017						12		4.7	
8/22/2017	6.5	12	2.9	5.3					3.4
8/23/2017					31		29		
5/14/2018									
5/15/2018		13		3.8			27	4.3	3.2
5/16/2018	6.6		3		22	12			
10/15/2018		10		6.6				5.1	
10/16/2018	6.2				35	20	31		
10/17/2018			2.2						2.3
2/20/2019									
4/16/2019									3.23
4/17/2019	7.27	12.7	2.82	5.2	6.61	9.5	32.3		
4/23/2019								5.16	
9/23/2019		16.2							
9/24/2019	5.83		2.9	5.96	12.3		36	5.76	
9/25/2019						12			
3/16/2020		9.95							
3/17/2020								6.65	
3/18/2020				8	6.68		49.5		
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							
9/22/2020	6.6		2.94			6.33			
9/23/2020				6	5.29		56.9		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
2/1/2021						8.42			
2/2/2021		10.2						6.76	
2/3/2021									
2/8/2021	6				5.48		39.8		
2/9/2021				6.12					
2/10/2021			3.19						

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
8/1/2016					
8/2/2016					
8/3/2016	5.2	21.9	3.21	14.5	
9/19/2016					
9/20/2016	5.31	20.9		12.9	
9/21/2016			2.95		
10/24/2016	5.4				
10/25/2016			3.03	12.2	
10/26/2016		20.7			
12/12/2016	5.46	21.1			
12/13/2016			3.21	10.4	
12/14/2016					
2/6/2017	5.28	23.3	3		
2/7/2017					
2/8/2017				8.77	
3/27/2017	6.4	25			
3/28/2017			3.3		
3/29/2017				10	
3/30/2017					
4/24/2017	6.5	24	3.8		
4/26/2017				9.8	
6/5/2017					
6/6/2017	4.7	22			
6/7/2017			3.5	8	
8/21/2017	6.1	21	3.6		
8/22/2017				6.5	
8/23/2017					
5/14/2018	6	20			
5/15/2018			3.3	4.4	
5/16/2018					
10/15/2018	7	20			
10/16/2018			3.3	3.1	
10/17/2018					
2/20/2019					3.56
4/16/2019	8.36	23.1	3.69	3.22	
4/17/2019					
4/23/2019					
9/23/2019	8.72	23.4			
9/24/2019			3.21		3.69
9/25/2019				6.68	
3/16/2020					
3/17/2020	10.1	17.4			
3/18/2020			4.35	4.22	
3/24/2020					
3/25/2020					3.72
5/12/2020					
5/13/2020					
9/16/2020		14.6			
9/17/2020	10.5				
9/21/2020			3.22		
9/22/2020					
9/23/2020				3.15	3.74

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
2/1/2021				3.32	
2/2/2021			3.85		3.49
2/3/2021	12.2	14.9			
2/8/2021					
2/9/2021					
2/10/2021					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-8 (bg)	GS-AP-MW-17V ...
8/1/2016					
8/2/2016					
8/3/2016	0.656	0.099 (J)	0.127 (J)	0.125 (J)	
9/19/2016					
9/20/2016	0.691	0.074 (J)	0.087 (J)		
9/21/2016				0.098 (J)	
10/24/2016			0.019 (J)		
10/25/2016	0.588			0.025 (J)	
10/26/2016		0.032 (J)			
12/12/2016		0.034 (J)	0.043 (J)		
12/13/2016	0.545			0.045 (J)	
12/14/2016					
2/6/2017		0.06 (J)	0.11	0.1	
2/7/2017					
2/8/2017	0.79				
3/27/2017		0.07 (J)	0.12		
3/28/2017				0.08 (J)	
3/29/2017	0.51				
3/30/2017					
4/24/2017		0.08 (J)	0.11	0.09 (J)	
4/26/2017	0.49				
6/5/2017					
6/6/2017		0.09 (J)	0.12		
6/7/2017	0.43			0.08 (J)	
8/21/2017		0.1	0.15	0.08 (J)	
8/22/2017	0.41				
8/23/2017					
2/19/2018		0.1	0.13	0.08 (J)	
2/20/2018	0.27				
2/21/2018					
5/14/2018		0.13	0.13		
5/15/2018	0.23			0.1	
5/16/2018					
10/15/2018		0.14	0.16		
10/16/2018	0.23			0.09 (J)	
10/17/2018					
2/20/2019					0.239
4/16/2019	0.188	0.147	0.156	0.143	
4/17/2019					
4/23/2019					
9/23/2019		0.142	0.132		
9/24/2019				0.128	0.245
9/25/2019	0.168				
3/16/2020					
3/17/2020		0.231	0.132		
3/18/2020	0.122			0.108	
3/24/2020					
3/25/2020					0.243
5/12/2020					
5/13/2020					
9/16/2020		0.308			
9/17/2020			0.133		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-8 (bg)	GS-AP-MW-17V ...
9/21/2020				0.125	
9/22/2020					
9/23/2020	0.12				0.278
2/1/2021	0.126				
2/2/2021				0.114	0.244
2/3/2021		0.195	0.135		
2/8/2021					
2/9/2021					
2/10/2021					

Prediction Limit

Constituent: pH (SU) Analysis Run 5/22/2021 10:37 AM View: PLs
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-8 (bg)	GS-AP-MW-17V ...
8/1/2016					
8/2/2016					
8/3/2016	7.36	6.81	7.27	5.84	
9/19/2016					
9/20/2016	7.28	6.72	7.27		
9/21/2016				5.99	
10/24/2016			7.25		
10/25/2016	7.23			5.94	
10/26/2016		6.68			
12/12/2016		6.76	7.26		
12/13/2016	7.27			5.84	
12/14/2016					
2/6/2017		6.75	7.24	5.9	
2/7/2017					
2/8/2017	7.25				
3/27/2017		6.67	7.29		
3/28/2017				5.67	
3/29/2017	7.34				
3/30/2017					
4/24/2017		6.81	7.46	5.79	
4/26/2017	7.19				
6/5/2017					
6/6/2017		6.8	7.29		
6/7/2017	7.24			5.71	
8/21/2017		6.78	7.21	5.7	
8/22/2017	7.31				
8/23/2017					
2/19/2018		6.85	7.36	5.78	
2/20/2018	7.69				
2/21/2018					
5/14/2018		6.82	7.36		
5/15/2018	7.69			5.84	
5/16/2018					
10/15/2018		6.78	7.33		
10/16/2018	7.51			5.75	
10/17/2018					
2/20/2019					7.76
4/16/2019	7.41	6.82	7.26	5.76	
4/17/2019					
4/23/2019					
9/23/2019		6.51	7.23		
9/24/2019				5.27	7.65
9/25/2019	7.38				
3/16/2020					
3/17/2020		6.92	7.39		
3/18/2020	7.56			5.81	
3/24/2020					
3/25/2020					7.63
5/12/2020					
5/13/2020					
9/16/2020		6.93			
9/17/2020			7.41		

Prediction Limit

Constituent: pH (SU) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-12	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-8 (bg)	GS-AP-MW-17V ...
9/21/2020				5.75	
9/22/2020					
9/23/2020	8.3				7.53
2/1/2021	7.55				
2/2/2021				5.69	7.58
2/3/2021		7.05	7.55		
2/8/2021					
2/9/2021					
2/10/2021					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
8/1/2016	9.02	9.56	13.4	102					
8/2/2016					295	2.87	9.14	154	12
8/3/2016									
9/19/2016		12.7	12.9			1.22			
9/20/2016				53.3					11.2
9/21/2016	8.38				440		8.71	146	
10/24/2016	18.5	8.58			608	<1		131	
10/25/2016			11.6	49.8			8.54		10.1
10/26/2016									
12/12/2016					755			141	
12/13/2016	7.4	31	12.7			<1			11.4
12/14/2016				40.9			11.5		
2/6/2017		14.7						135	
2/7/2017	8.16								
2/8/2017			12.2	25	672	19.4	17		10.9
3/27/2017		14							
3/28/2017	6.4			27	610		25	140	
3/29/2017			12						11
3/30/2017						31			
4/24/2017		22						140	
4/26/2017	4.6 (J)		13	29	600	29	28		11
6/5/2017		30							
6/6/2017	5.2		12	23	670	37	33		
6/7/2017								150	11
8/21/2017						55		140	
8/22/2017	5.3	42	12	22					11
8/23/2017					560		43		
5/14/2018									
5/15/2018		54		13			110	120	11
5/16/2018	6		13		260	34			
10/15/2018		34		14				130	
10/16/2018	5.6				520	90	160		
10/17/2018			13						12
2/20/2019									
4/16/2019									12.1
4/17/2019	14.3	76.6	14.1	9.02	71.6	48.6	215		
4/23/2019								156	
9/23/2019		124							
9/24/2019	13.8		14.1	12.4	119		224	145	
9/25/2019						47.7			
3/16/2020		48.6							
3/17/2020								149	
3/18/2020				15.9	216		228		
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							
9/22/2020	16.9		13.6			21.5			
9/23/2020				13.2	88.9		248		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
2/1/2021						21.3			
2/2/2021		55.1						130	
2/3/2021									
2/8/2021	16.2				72.6		232		
2/9/2021				10.6					
2/10/2021			15.8						

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLS

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
8/1/2016					
8/2/2016					
8/3/2016	52	203	4.2	19.2	
9/19/2016					
9/20/2016	56	209		1.42	
9/21/2016			4.27		
10/24/2016	57.5				
10/25/2016			2.78	<1	
10/26/2016		224			
12/12/2016	50	249			
12/13/2016			3.18	3.21	
12/14/2016					
2/6/2017	54.9	309	3.74		
2/7/2017					
2/8/2017				3.3	
3/27/2017	50	290			
3/28/2017			3.4 (J)		
3/29/2017				3.8 (J)	
3/30/2017					
4/24/2017	56	300	2.7 (J)		
4/26/2017				1.4 (J)	
6/5/2017					
6/6/2017	63	310			
6/7/2017			2.7 (J)	1.7 (J)	
8/21/2017	35	260	3.9 (J)		
8/22/2017				4.2 (J)	
8/23/2017					
5/14/2018	46	210			
5/15/2018			2.5 (J)	14	
5/16/2018					
10/15/2018	37	170			
10/16/2018			2.4 (J)	13	
10/17/2018					
2/20/2019					15.2
4/16/2019	46.8	195	4.53	13.3	
4/17/2019					
4/23/2019					
9/23/2019	47.9	176			
9/24/2019			6.61		11.8
9/25/2019				25.5	
3/16/2020					
3/17/2020	59.5	148			
3/18/2020			4.86	20.8	
3/24/2020					
3/25/2020					9.69
5/12/2020					
5/13/2020					
9/16/2020		115			
9/17/2020	65.1				
9/21/2020			4.69		
9/22/2020					
9/23/2020				19.1	11.1

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
2/1/2021				18.7	
2/2/2021			4.83		8.81
2/3/2021	58.9	116			
2/8/2021					
2/9/2021					
2/10/2021					

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs

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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
8/1/2016	245	408	222	640					
8/2/2016					586	390	348	358	221
8/3/2016									
9/19/2016		441	220			398			
9/20/2016				434					221
9/21/2016	267				848		368	370	
10/24/2016	275	424			1100	395		370	
10/25/2016			223	394			348		226
10/26/2016									
12/12/2016					1260			353	
12/13/2016	255	466	211			381			211
12/14/2016				387			352		
2/6/2017		414						338	
2/7/2017	272								
2/8/2017			206	303	1160	376	352		212
3/27/2017		444							
3/28/2017	271			305	1100		370	352	
3/29/2017			215						217
3/30/2017						391			
4/24/2017		446						362	
4/26/2017	265		212	329	1090	384	342		202
6/5/2017		493							
6/6/2017	287		227	331	1170	404	367		
6/7/2017								348	218
8/21/2017						416		362	
8/22/2017	293	500	230	364					224
8/23/2017					1020		508		
5/14/2018									
5/15/2018		528		340			438	338	209
5/16/2018	301		216		658	365			
10/15/2018		462		448				333	
10/16/2018	303				1030	430	520		
10/17/2018			191						208
2/20/2019									
4/16/2019									185
4/17/2019	296	540	207	354	347	341	582		
4/23/2019								354	
9/23/2019		684							
9/24/2019	302		208	536	372		630	344	
9/25/2019						358			
3/16/2020		516							
3/17/2020								334	
3/18/2020				515	618		661		
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							
9/22/2020	300		218			318			
9/23/2020				600	380		642		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run: 5/22/2021 10:37 AM View: PLs
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-18	GS-AP-MW-2	GS-AP-MW-21	GS-AP-MW-7	GS-AP-MW-13 (bg)
2/1/2021						333			
2/2/2021		548						349	
2/3/2021									
2/8/2021	324				384		684		
2/9/2021				616					
2/10/2021			224						

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
8/1/2016					
8/2/2016					
8/3/2016	302	394	113	546	
9/19/2016					
9/20/2016	298	444		542	
9/21/2016			128		
10/24/2016	306				
10/25/2016			121	518	
10/26/2016		456			
12/12/2016	291	491			
12/13/2016			101	424	
12/14/2016					
2/6/2017	285	580	108		
2/7/2017					
2/8/2017				379	
3/27/2017	305	554			
3/28/2017			91		
3/29/2017				334	
3/30/2017					
4/24/2017	301	566	89.3		
4/26/2017				332	
6/5/2017					
6/6/2017	311	580			
6/7/2017			84	308	
8/21/2017	289	524	91.3		
8/22/2017				286	
8/23/2017					
5/14/2018	303	458			
5/15/2018			94.7	235	
5/16/2018					
10/15/2018	309	404			
10/16/2018			76.7	211	
10/17/2018					
2/20/2019					346
4/16/2019	285	382	92	193	
4/17/2019					
4/23/2019					
9/23/2019	296	381			
9/24/2019			109		365
9/25/2019				253	
3/16/2020					
3/17/2020	303	328			
3/18/2020			90.7	236	
3/24/2020					
3/25/2020					364
5/12/2020					
5/13/2020					
9/16/2020		269			
9/17/2020	314				
9/21/2020			94		
9/22/2020					
9/23/2020				216	368

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 5/22/2021 10:37 AM View: PLs
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-8 (bg)	GS-AP-MW-12	GS-AP-MW-17V ...
2/1/2021				224	
2/2/2021			98.7		356
2/3/2021	301	274			
2/8/2021					
2/9/2021					
2/10/2021					

FIGURE E.

Trend Test Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:45 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-6D	0.04009	65	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.07908	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04424	63	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.875	76	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.237	78	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.301	90	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6649	107	58	Yes	16	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-17	0.04117	94	68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-18	0.1098	83	63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1845	-113	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.421	72	63	Yes	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.05489	87	68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	4.396	62	58	Yes	16	6.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17	16.07	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-18	-125.2	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	58.03	112	58	Yes	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	37.69	93	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	80.56	92	58	Yes	16	0	n/a	n/a	0.01	NP

Trend Test Summary -All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:45 AM

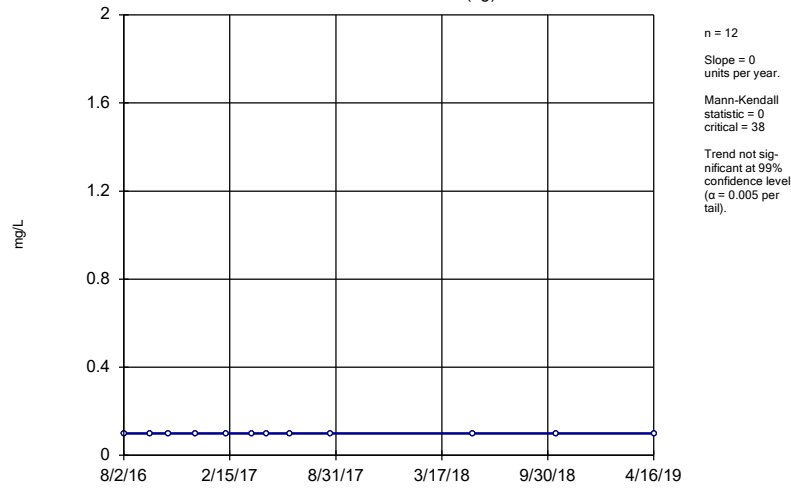
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-13 (bg)	0	0	38	No	12	100	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-17V (bg)	-0.003101	-2	-12	No	5	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-18	-0.2449	-38	-58	No	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	0.009339	24	63	No	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6D	0.04009	65	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.07908	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04424	63	58	Yes	16	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-8 (bg)	0	15	58	No	16	93.75	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)	0.5358	2	12	No	5	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.188	50	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.875	76	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6S	-2.405	-24	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-8 (bg)	-1.178	-46	-58	No	16	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	-0.3789	-22	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	1.254	63	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17V (bg)	0.04505	2	12	No	5	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-18	-5.294	-44	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-0.1209	-26	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	0.5567	27	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.237	78	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.301	90	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6S	-1.101	-37	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6649	107	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1486	54	58	No	16	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-15	-0.02179	-18	-63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17	0.04117	94	68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17V (bg)	0.003109	4	12	No	5	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-18	0.1098	83	63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-19	0.002827	9	63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1845	-113	-68	Yes	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-8 (bg)	0.00935	49	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-13 (bg)	-0.05825	-34	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.421	72	63	Yes	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	-0.008277	-22	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17V (bg)	-0.1055	-8	-12	No	5	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-19	-0.05657	-38	-63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.05489	87	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-21	0.2746	59	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-7	0.01293	26	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.0436	-60	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	4.396	62	58	Yes	16	6.25	n/a	n/a	0.01	NP
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-16D	0.4795	55	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17	16.07	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17V (bg)	-2.923	-8	-12	No	5	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-18	-125.2	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-19	1.423	20	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	6.466	45	63	No	17	11.76	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	58.03	112	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6D	0.651	8	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6S	-27.74	-50	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-7	-1.812	-21	-58	No	16	0	n/a	n/a	0.01	NP

Trend Test Summary -All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:45 AM

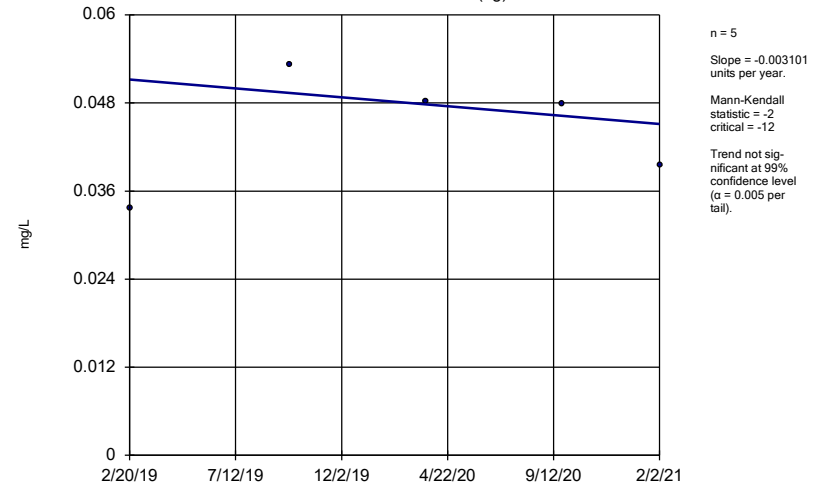
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	GS-AP-MW-8 (bg)	0.2656	25	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-13 (bg)	-7.182	-29	-38	No	12	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-15	37.44	34	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	37.69	93	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17V (bg)	4.06	2	12	No	5	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-18	-162.5	-49	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	80.56	92	58	Yes	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (bg)	-4.904	-34	-58	No	16	0	n/a	n/a	0.01	NP

Sen's Slope Estimator
GS-AP-MW-13 (bg)



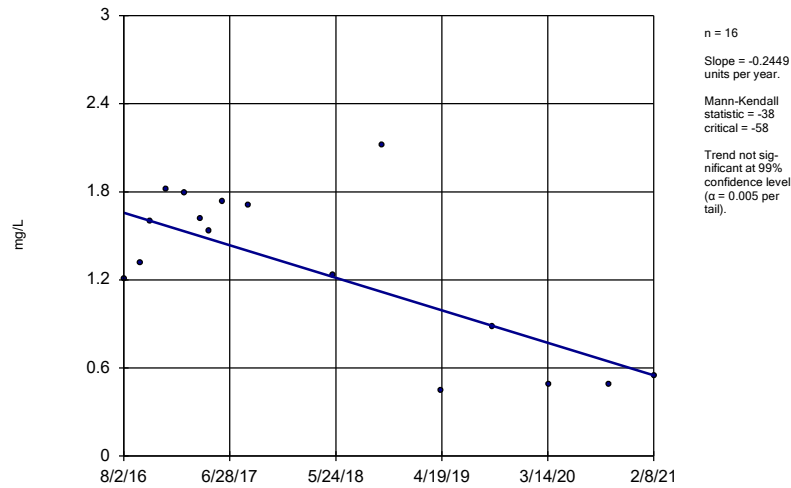
Constituent: Boron Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator
GS-AP-MW-17V (bg)



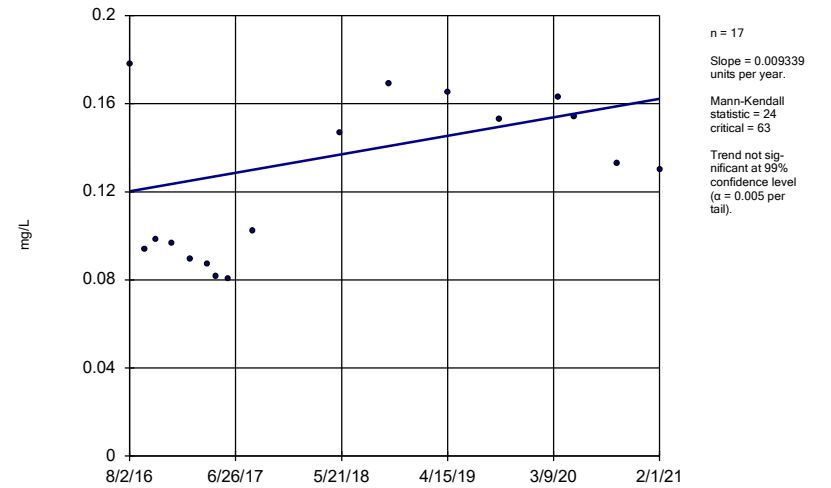
Constituent: Boron Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator
GS-AP-MW-18



Constituent: Boron Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

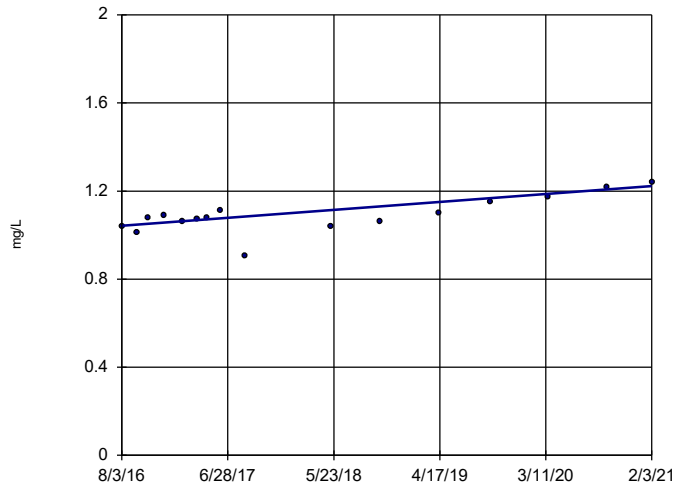
Sen's Slope Estimator
GS-AP-MW-2



Constituent: Boron Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

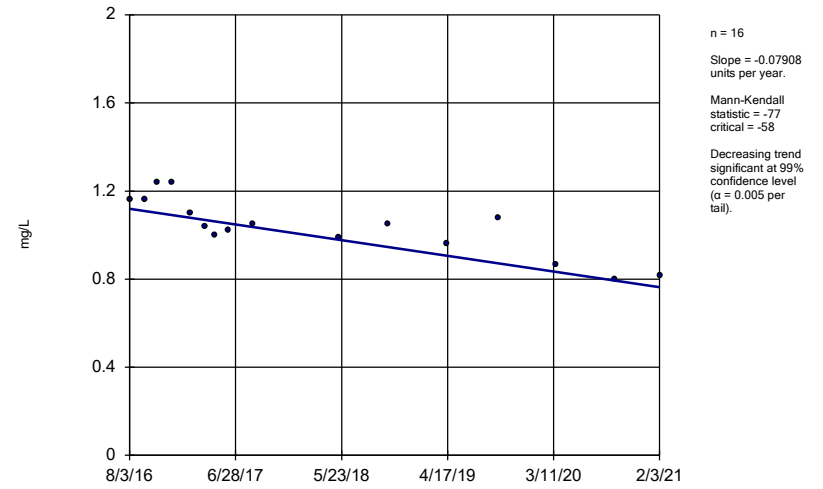
GS-AP-MW-6D



Constituent: Boron Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

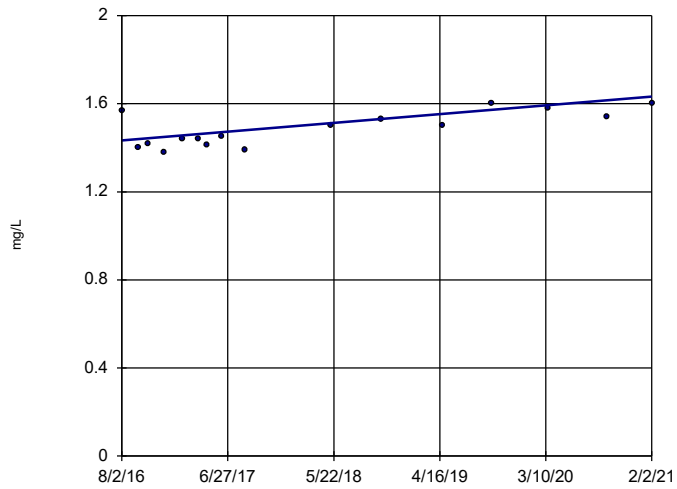
GS-AP-MW-6S



Constituent: Boron Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

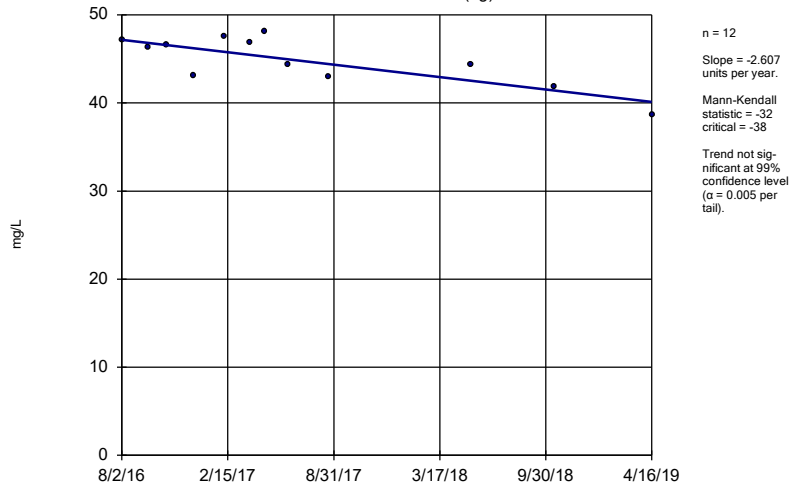
Sen's Slope Estimator

GS-AP-MW-7



Sen's Slope Estimator

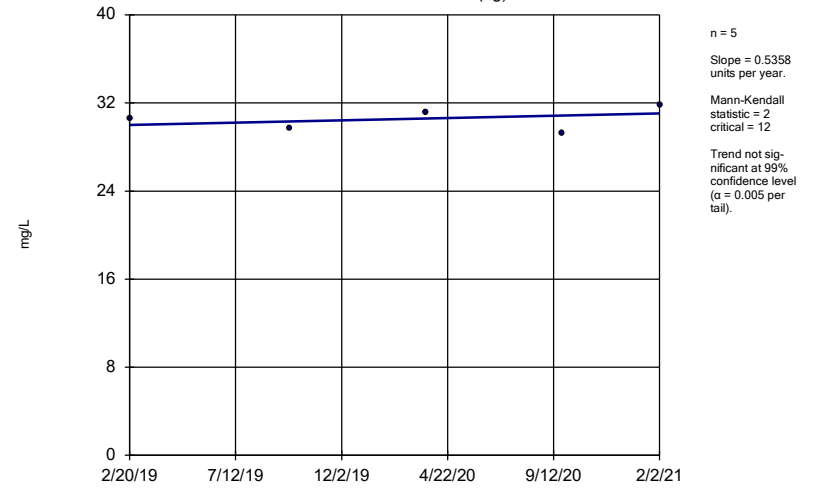
GS-AP-MW-13 (bg)



Constituent: Calcium Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

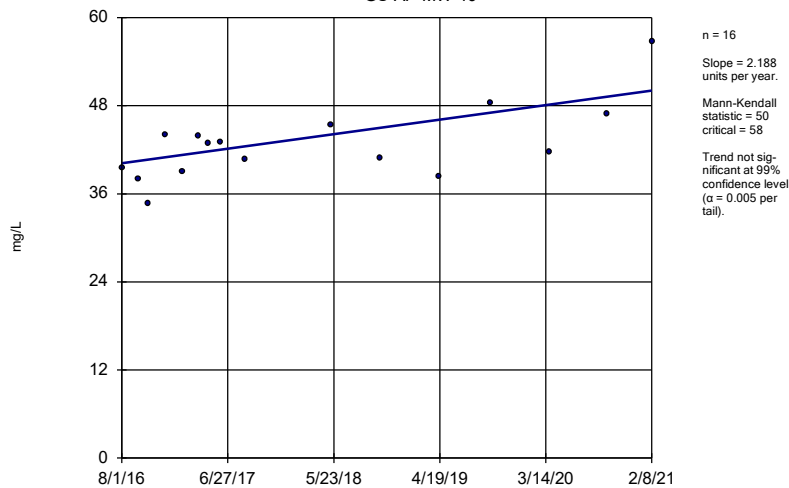
GS-AP-MW-17V (bg)



Constituent: Calcium Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

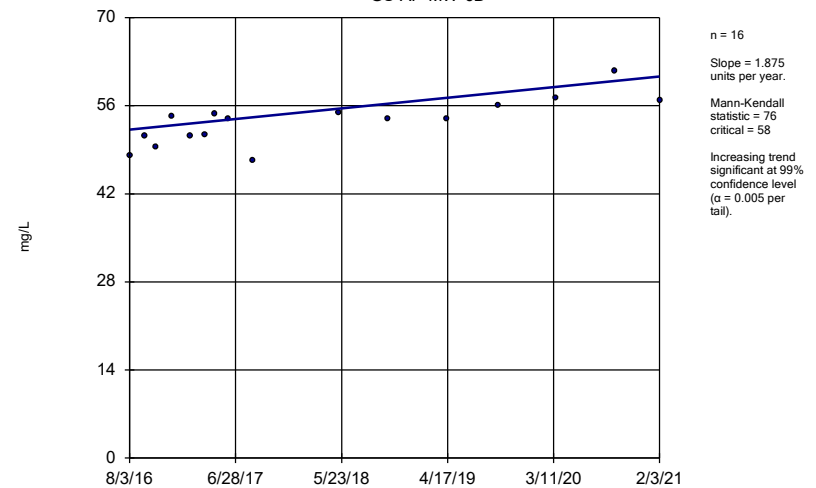
GS-AP-MW-19



Constituent: Calcium Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

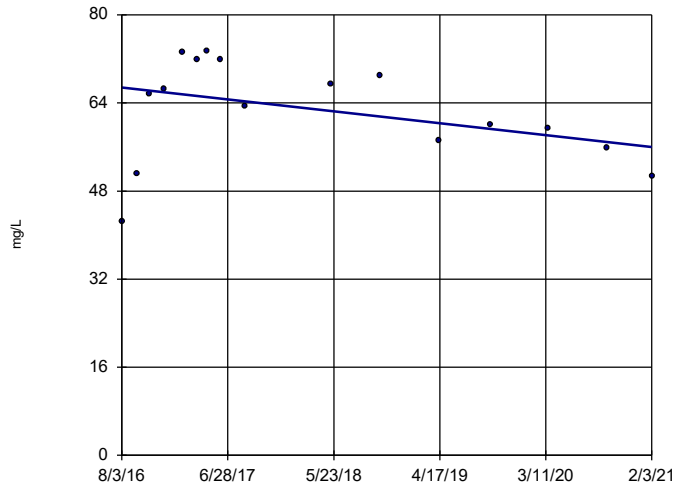
GS-AP-MW-6D



Constituent: Calcium Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

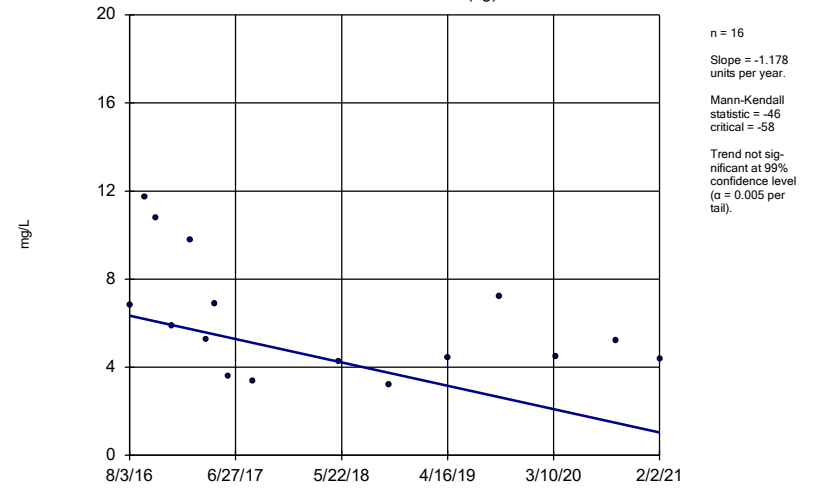
GS-AP-MW-6S



Constituent: Calcium Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

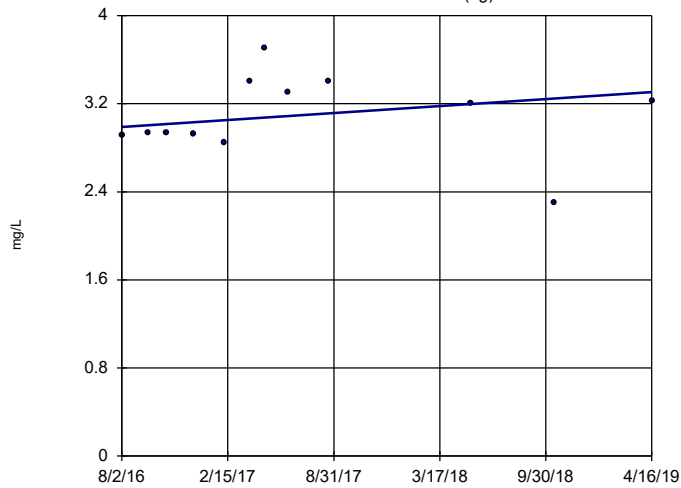
GS-AP-MW-8 (bg)



Constituent: Calcium Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

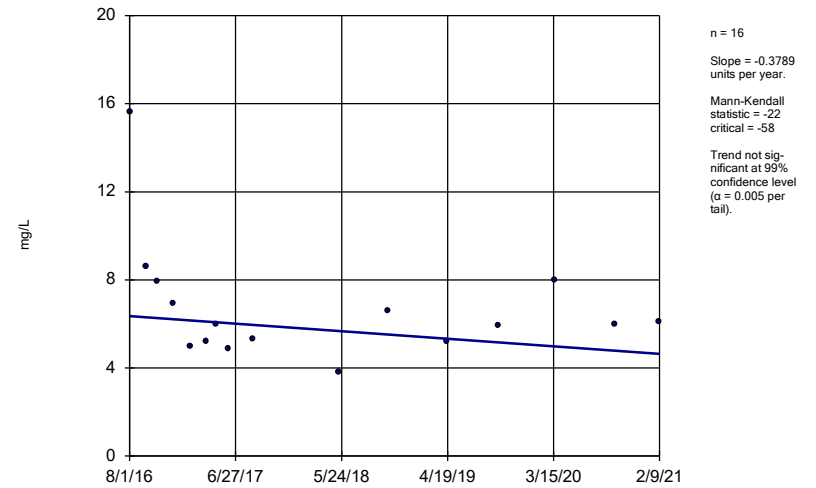
GS-AP-MW-13 (bg)



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

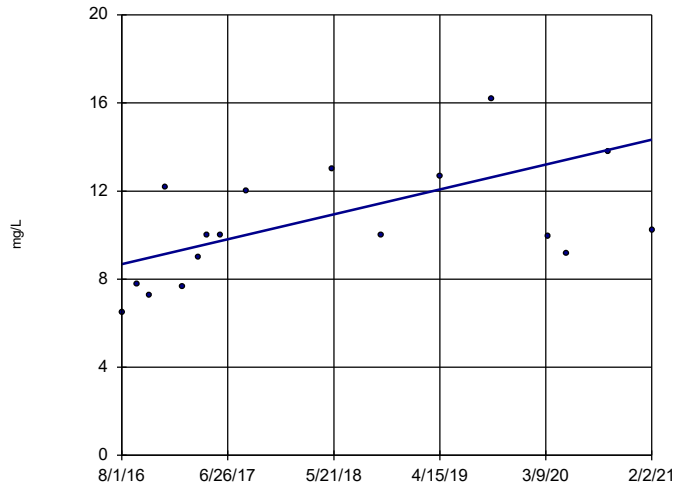
GS-AP-MW-15



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

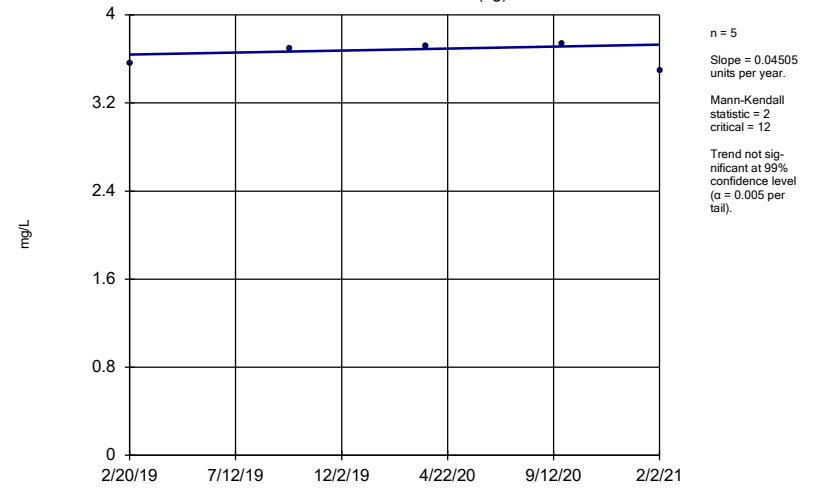
GS-AP-MW-17



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

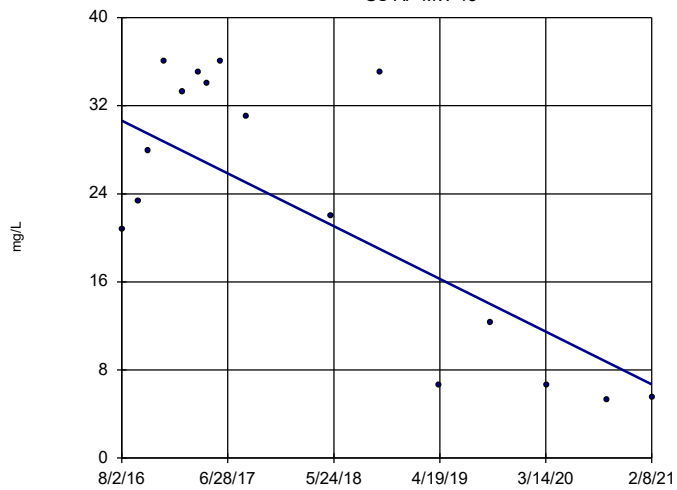
GS-AP-MW-17V (bg)



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

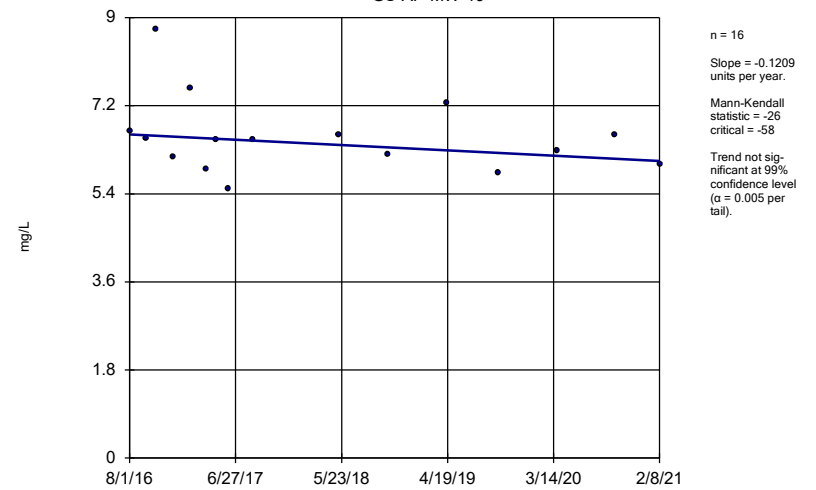
GS-AP-MW-18



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

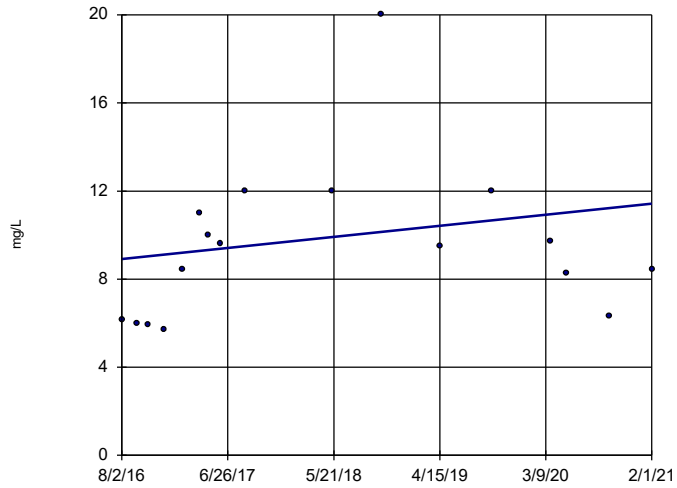
GS-AP-MW-19



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

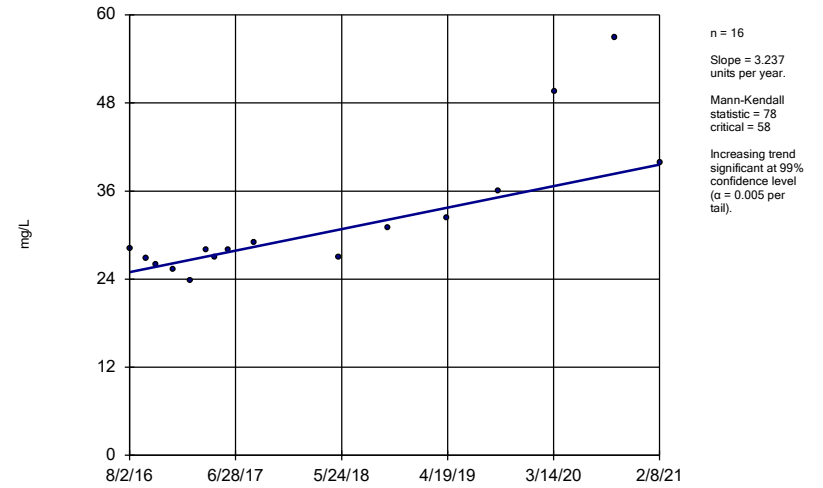
GS-AP-MW-2



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

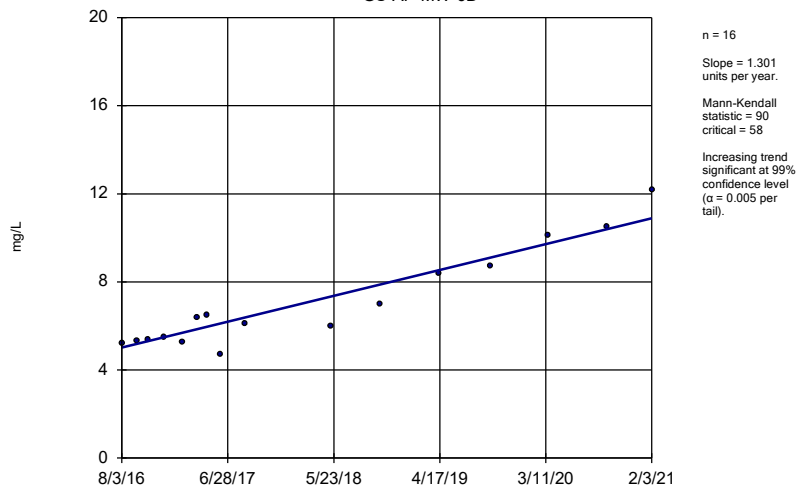
GS-AP-MW-21



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

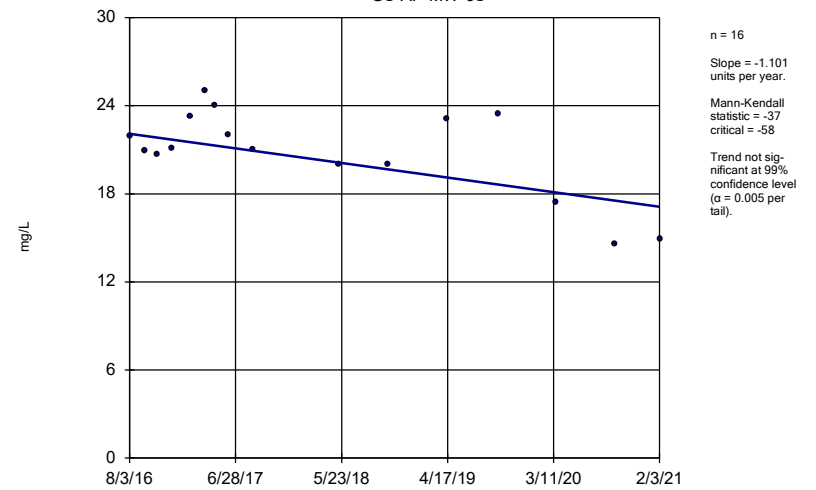
GS-AP-MW-6D



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

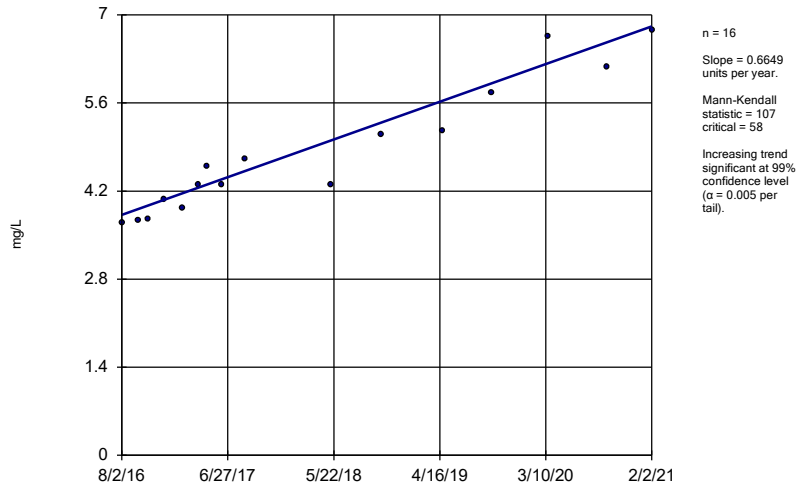
GS-AP-MW-6S



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

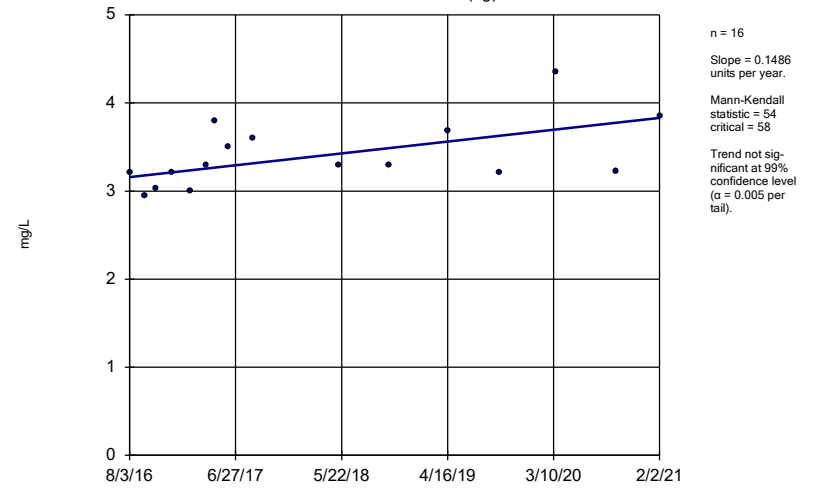
GS-AP-MW-7



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

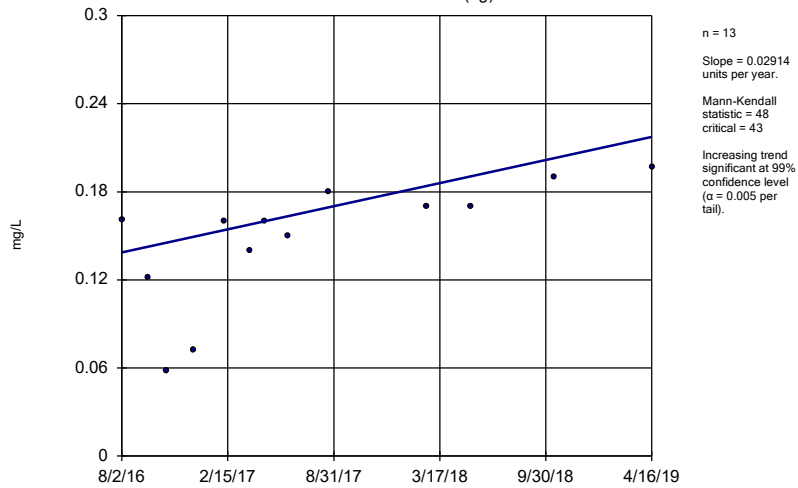
GS-AP-MW-8 (bg)



Constituent: Chloride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

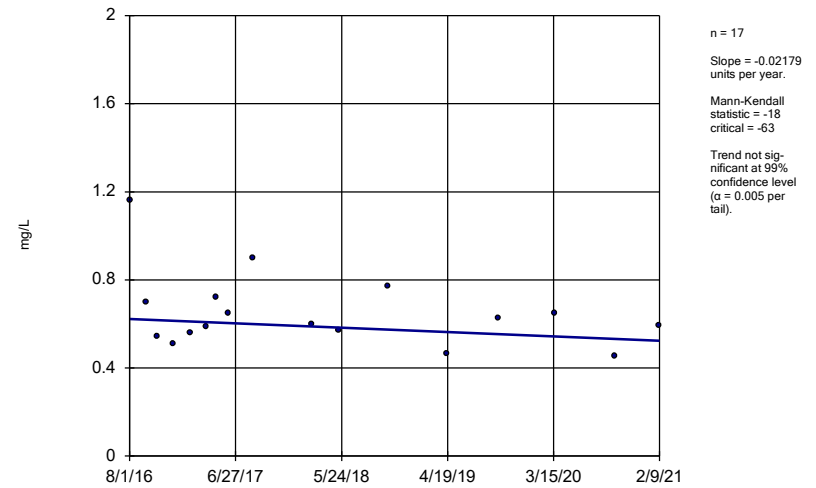
GS-AP-MW-13 (bg)



Constituent: Fluoride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

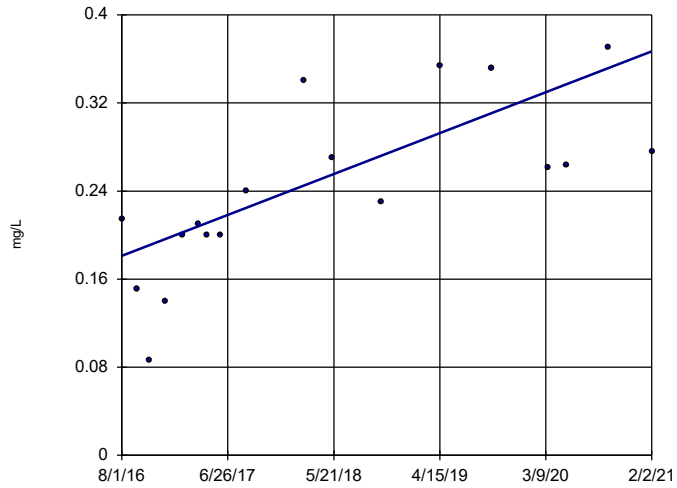
GS-AP-MW-15



Constituent: Fluoride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-17

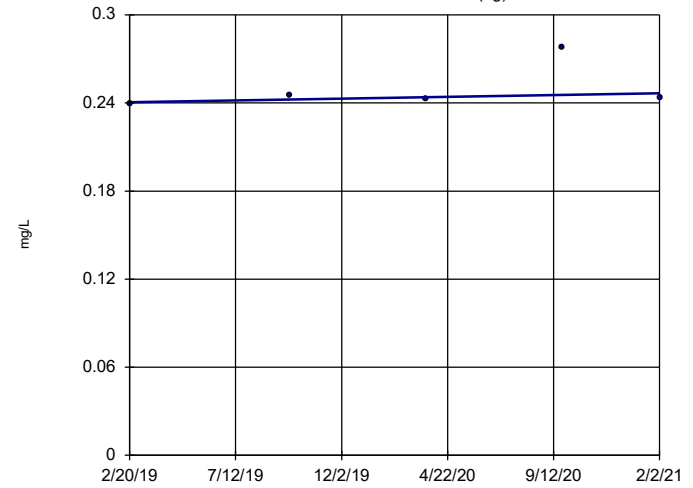


n = 18
 Slope = 0.04117 units per year.
 Mann-Kendall statistic = 94
 critical = 68
 Increasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Fluoride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-17V (bg)

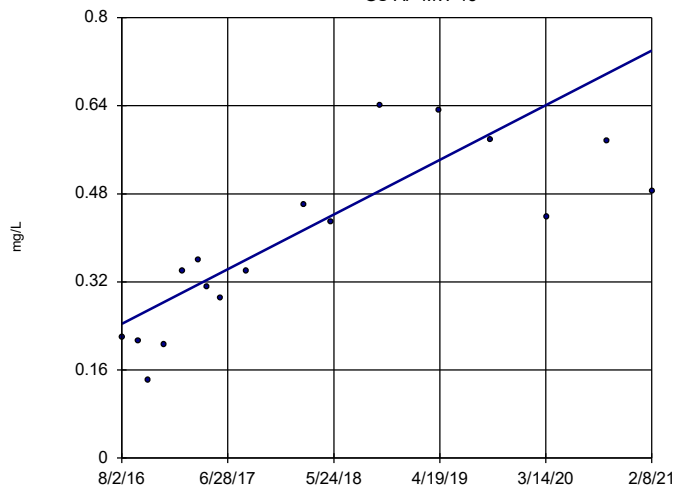


n = 5
 Slope = 0.003109 units per year.
 Mann-Kendall statistic = 4
 critical = 12
 Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Fluoride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-18

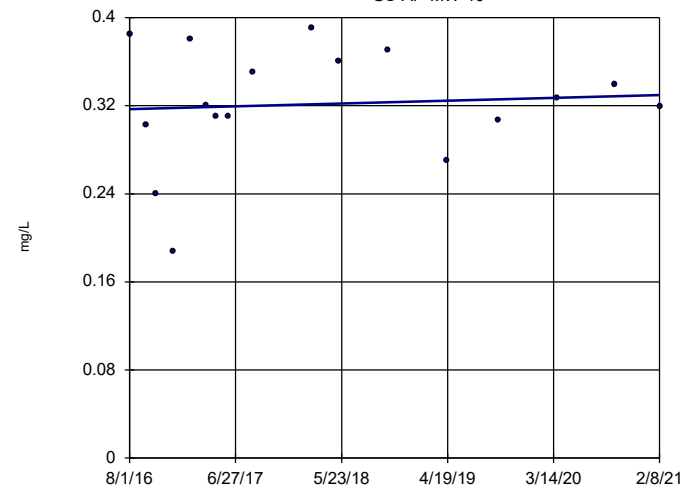


n = 17
 Slope = 0.1098 units per year.
 Mann-Kendall statistic = 83
 critical = 63
 Increasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Fluoride Analysis Run 5/22/2021 10:41 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-19

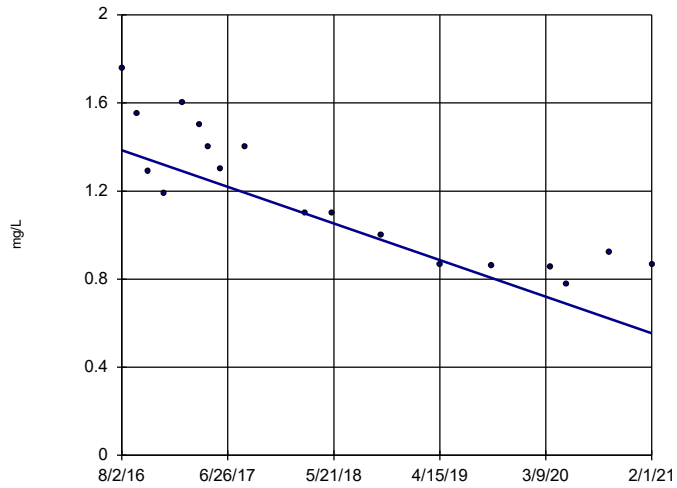


n = 17
 Slope = 0.002827 units per year.
 Mann-Kendall statistic = 9
 critical = 63
 Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Fluoride Analysis Run 5/22/2021 10:42 AM View: Trend Tests
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

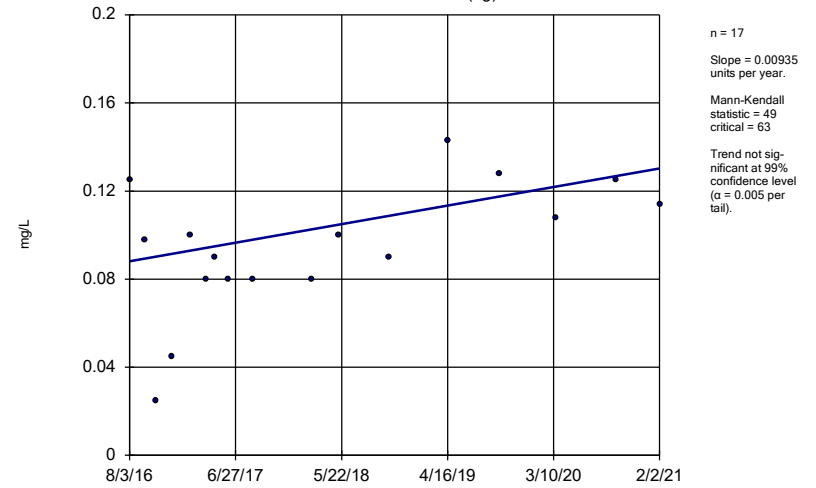
GS-AP-MW-2



Constituent: Fluoride Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

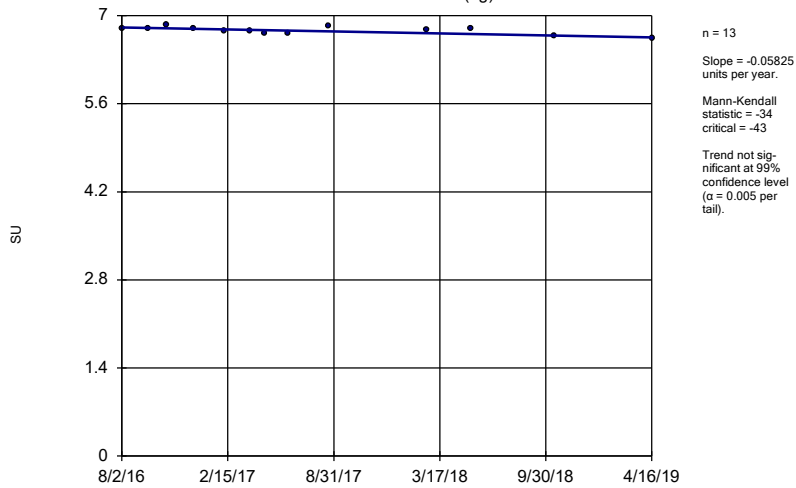
GS-AP-MW-8 (bg)



Constituent: Fluoride Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

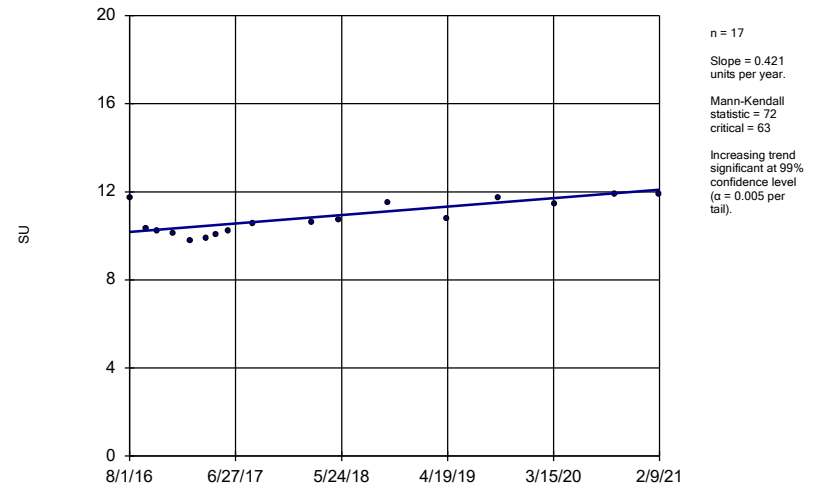
GS-AP-MW-13 (bg)



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

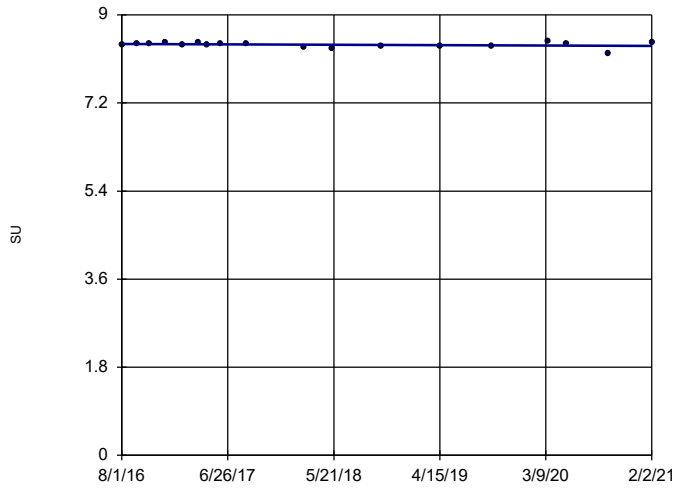
GS-AP-MW-15



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

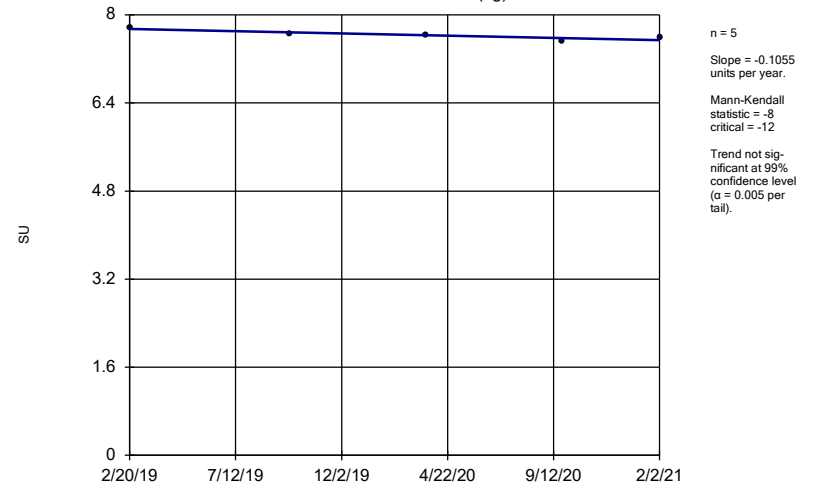
GS-AP-MW-17



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

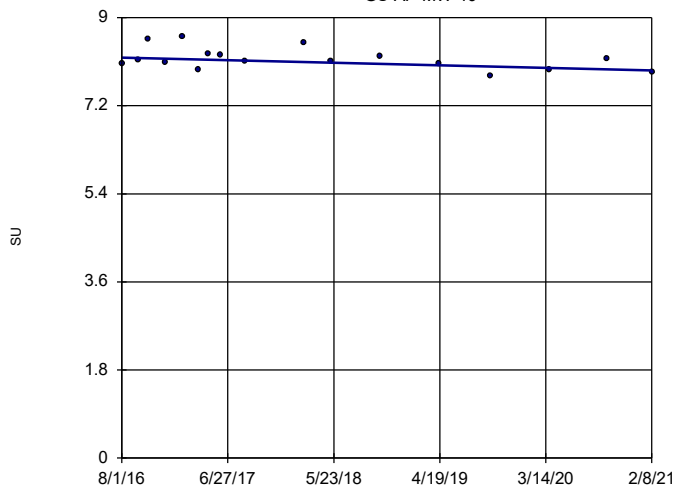
GS-AP-MW-17V (bg)



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

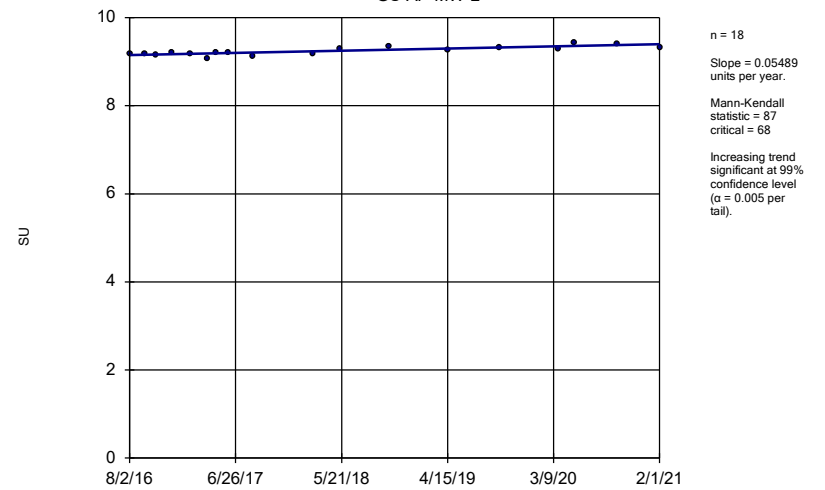
GS-AP-MW-19



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

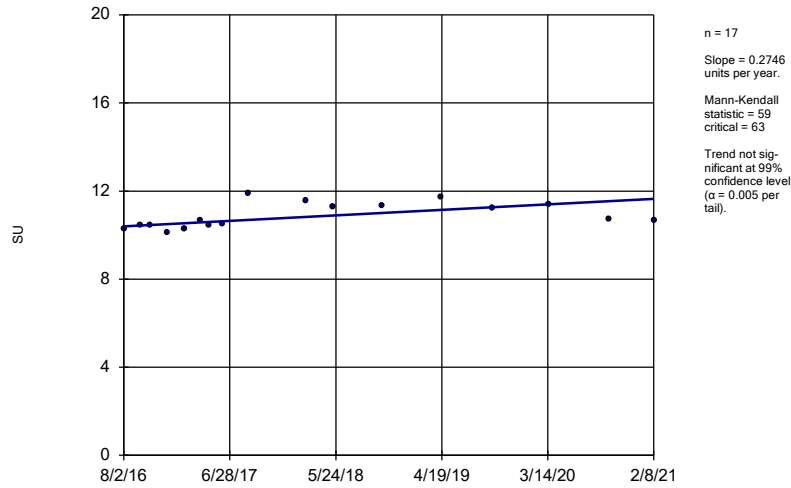
GS-AP-MW-2



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

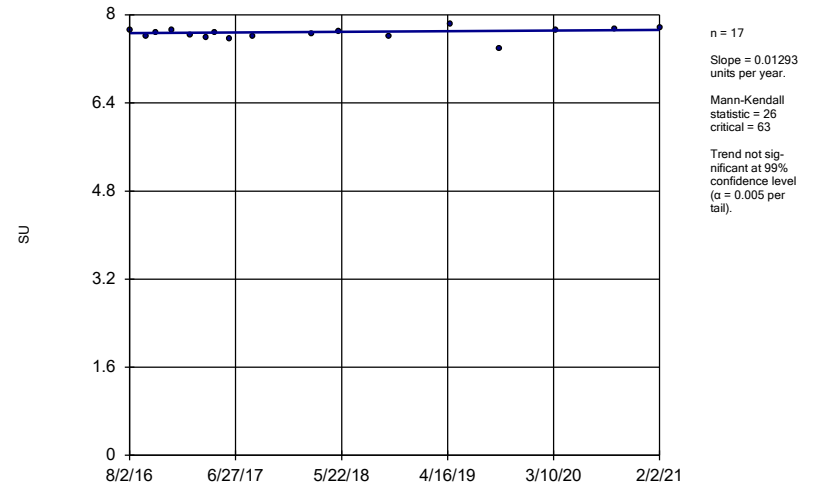
GS-AP-MW-21



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

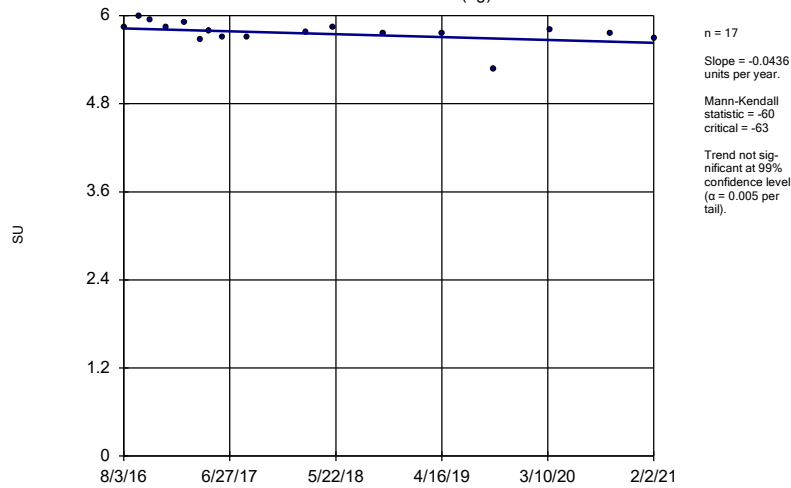
GS-AP-MW-7



Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-8 (bg)

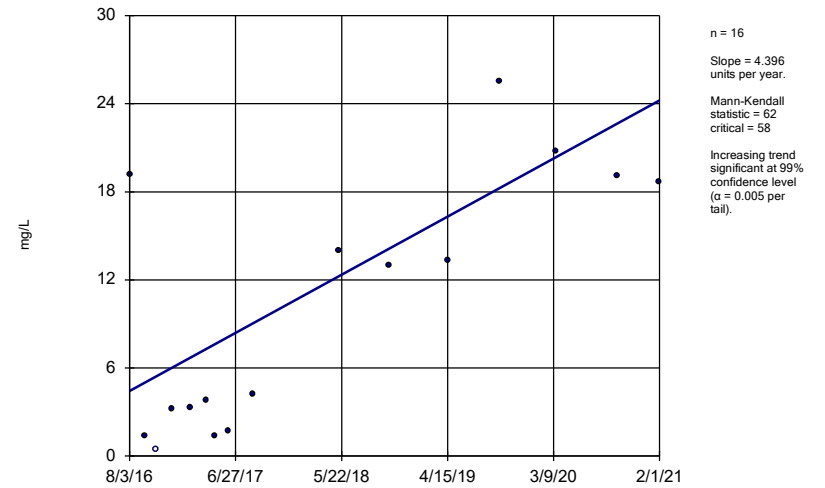


Constituent: pH Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

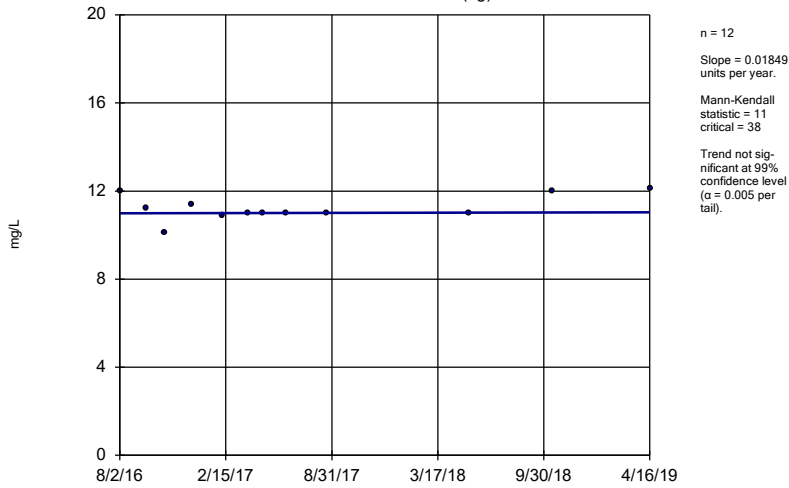
GS-AP-MW-12



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

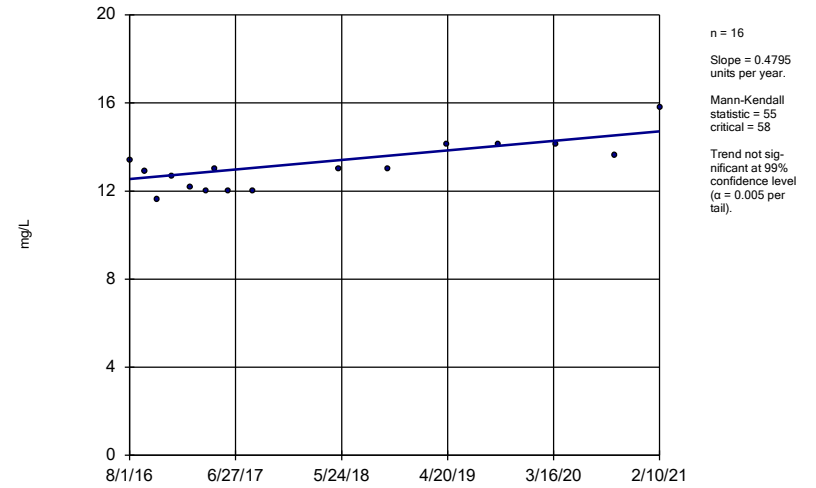
GS-AP-MW-13 (bg)



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

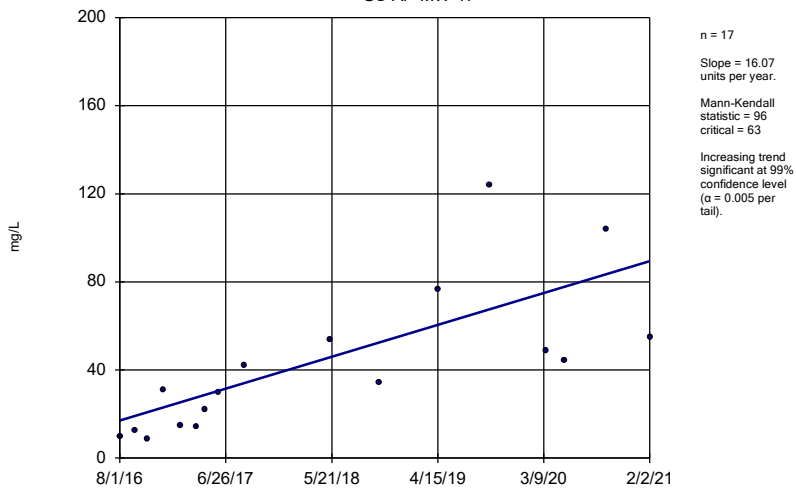
GS-AP-MW-16D



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

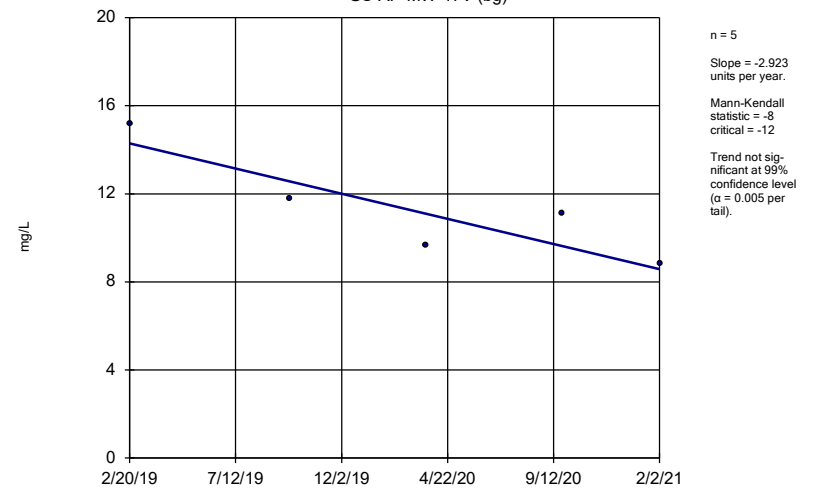
GS-AP-MW-17



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

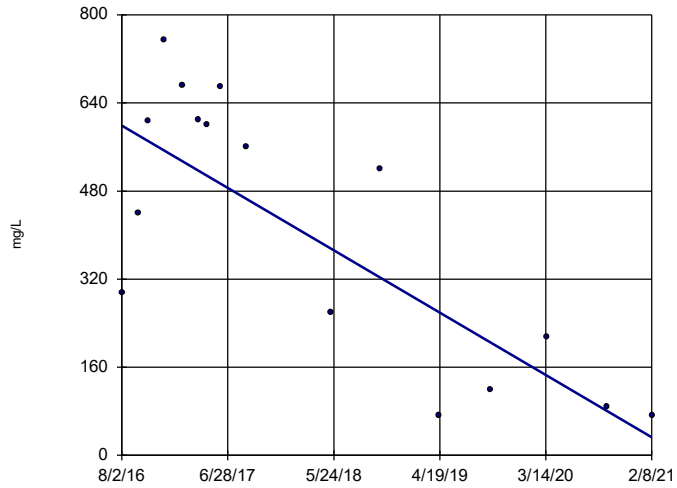
GS-AP-MW-17V (bg)



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

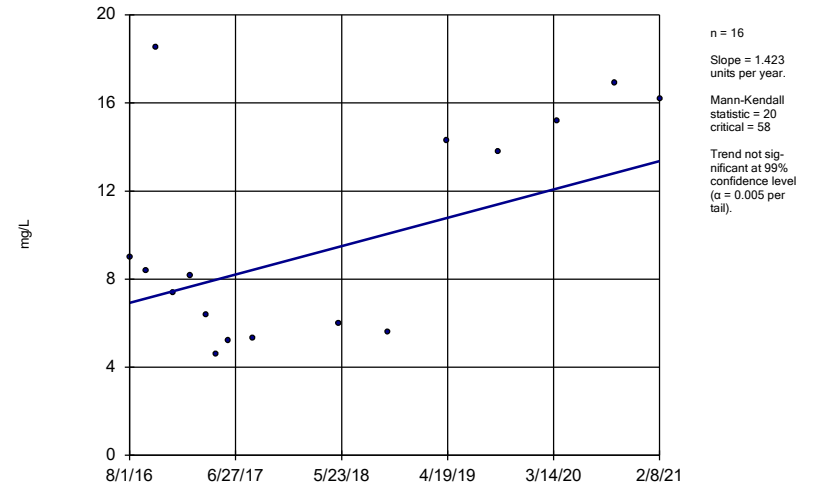
GS-AP-MW-18



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

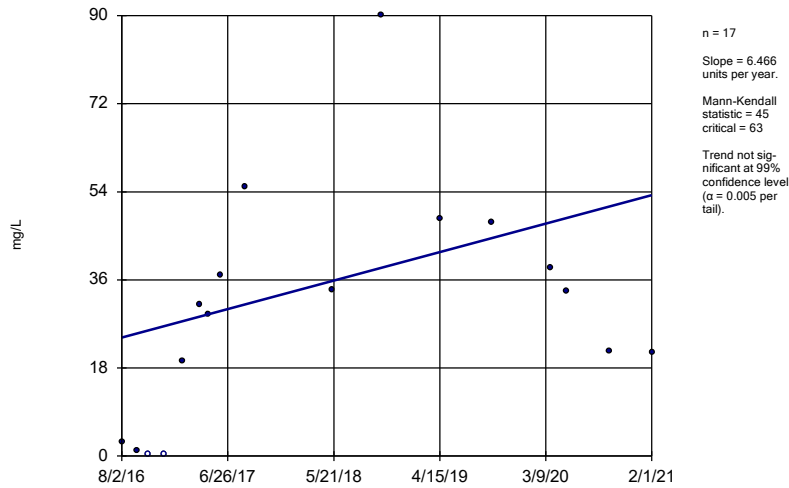
GS-AP-MW-19



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

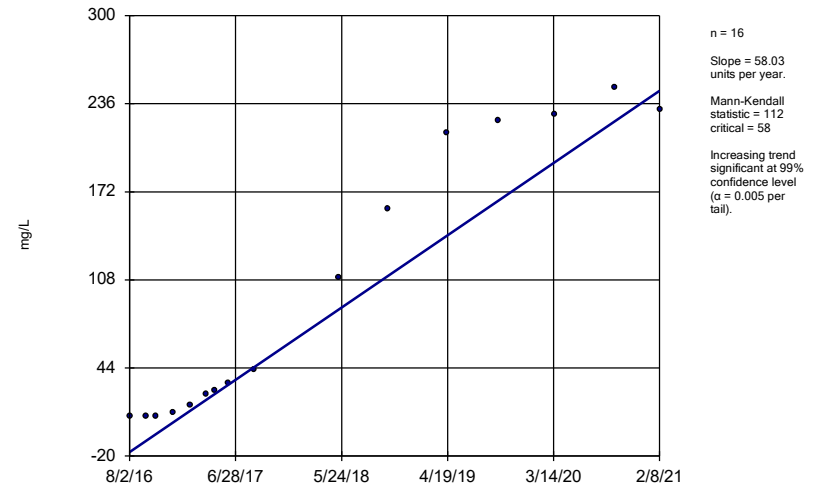
GS-AP-MW-2



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

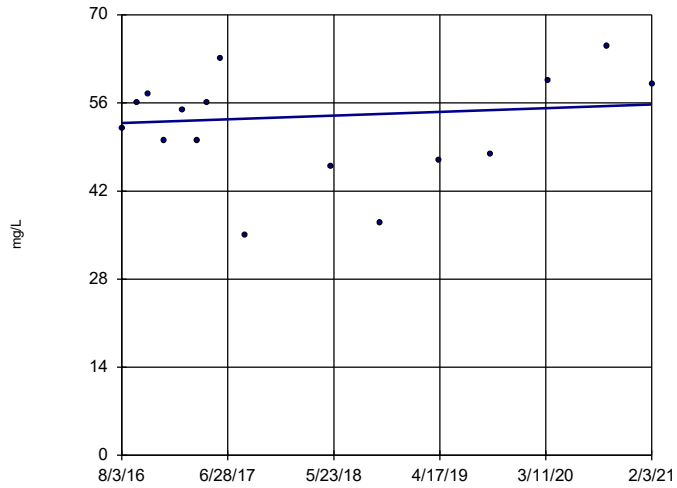
GS-AP-MW-21



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

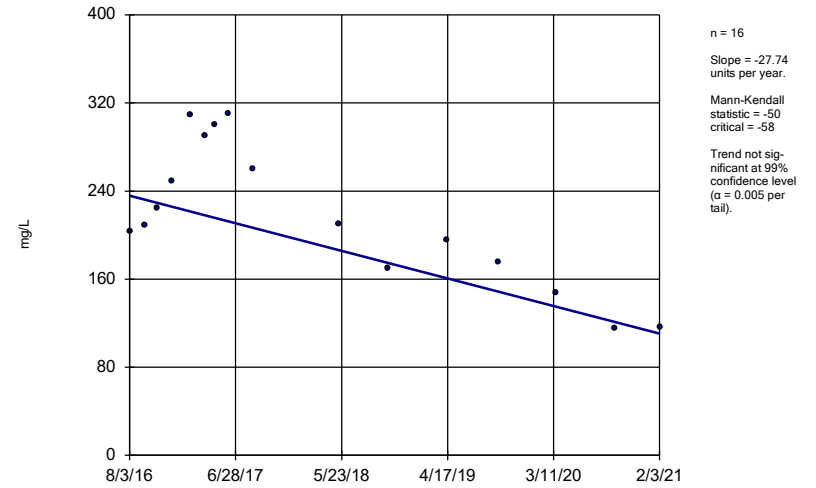
GS-AP-MW-6D



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

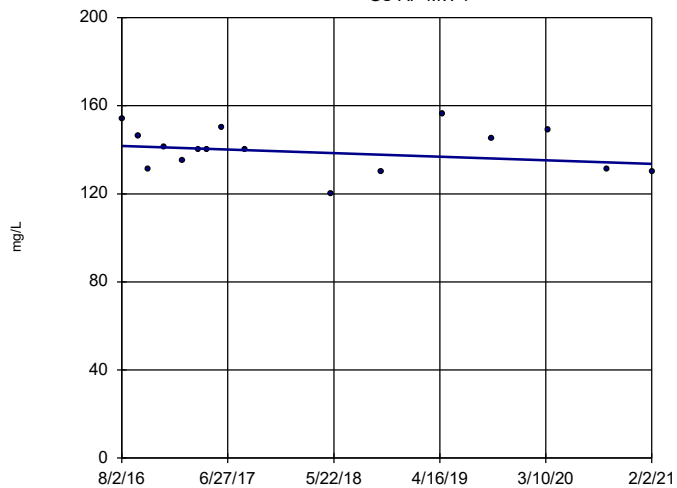
GS-AP-MW-6S



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

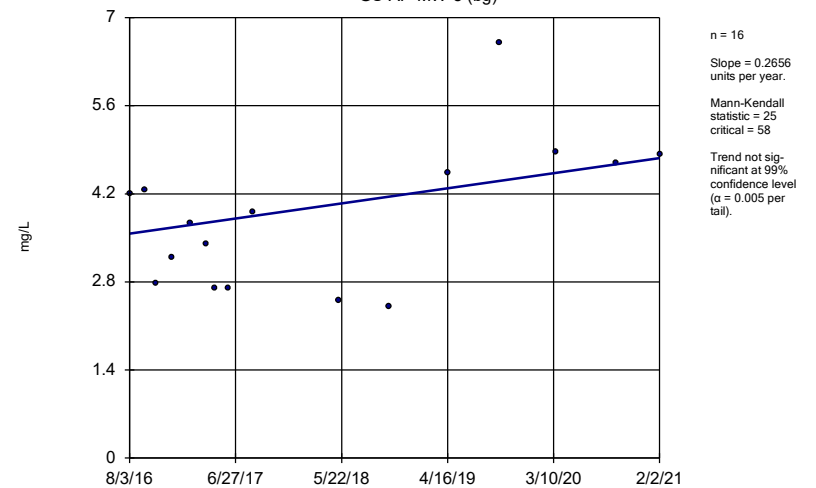
GS-AP-MW-7



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

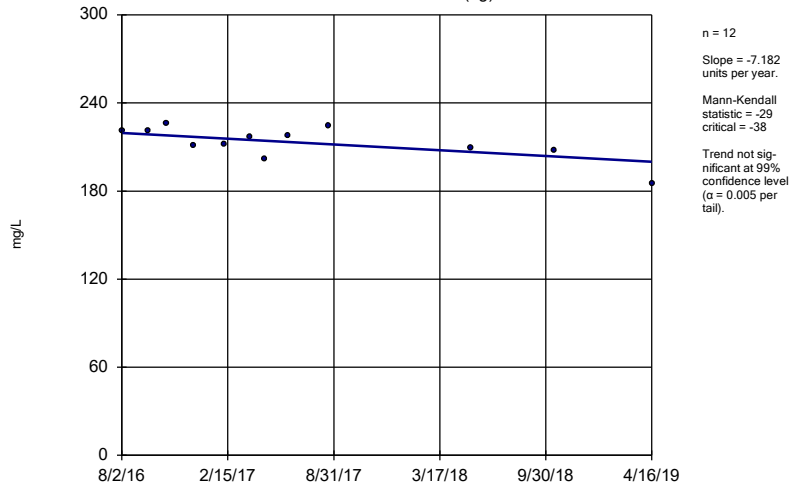
GS-AP-MW-8 (bg)



Constituent: Sulfate Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

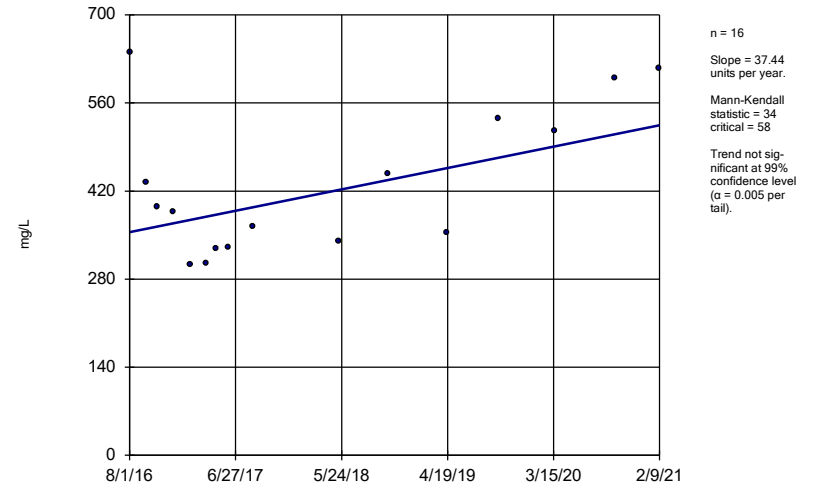
GS-AP-MW-13 (bg)



Constituent: TDS Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

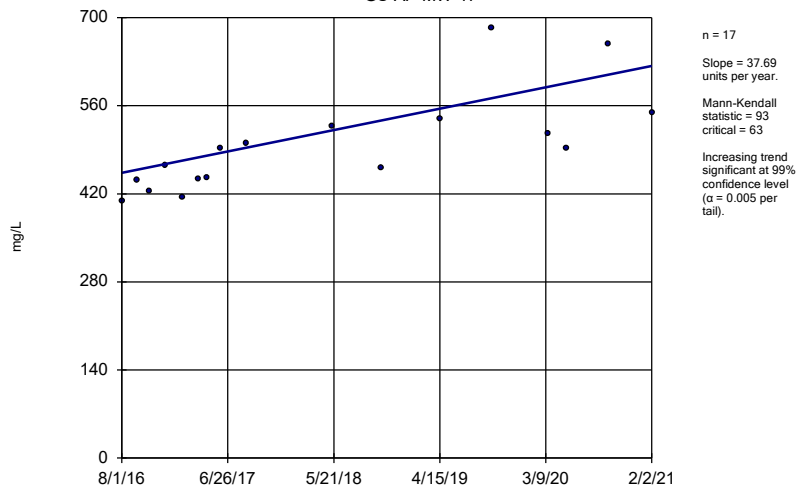
GS-AP-MW-15



Constituent: TDS Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

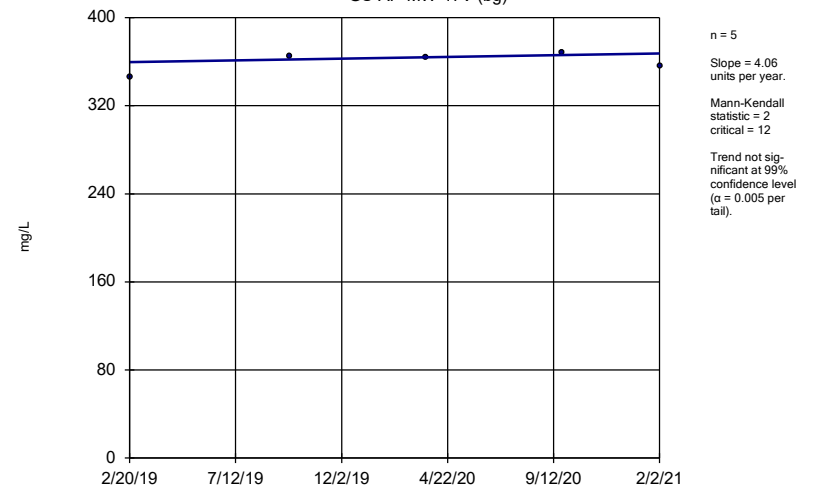
GS-AP-MW-17



Constituent: TDS Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

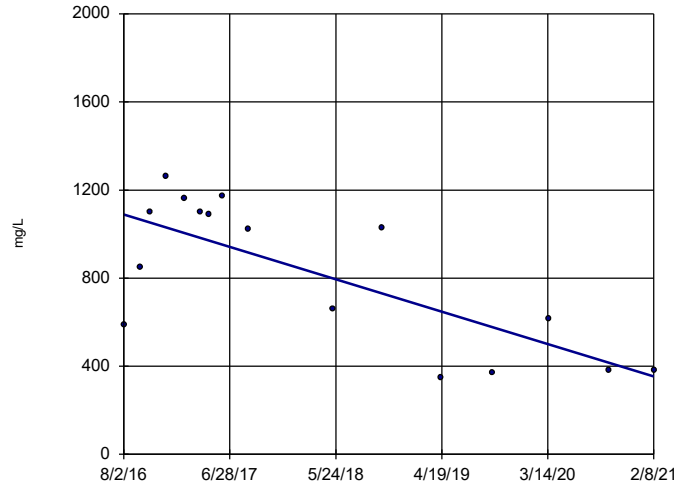
Sen's Slope Estimator

GS-AP-MW-17V (bg)



Constituent: TDS Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

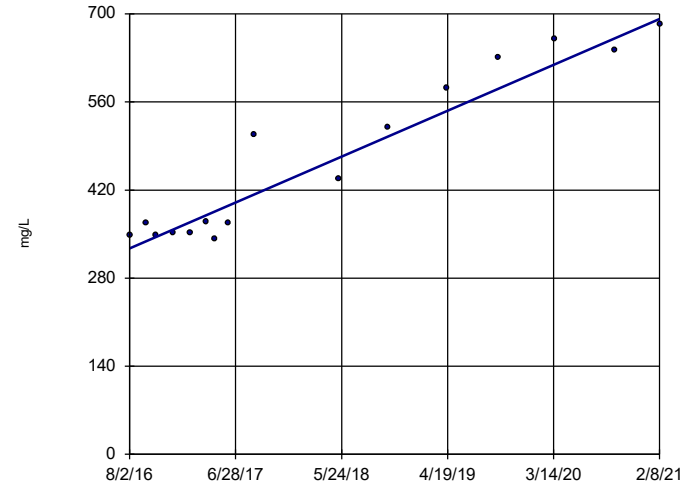
Sen's Slope Estimator GS-AP-MW-18



n = 16
Slope = -162.5 units per year.
Mann-Kendall statistic = -49
critical = -58
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

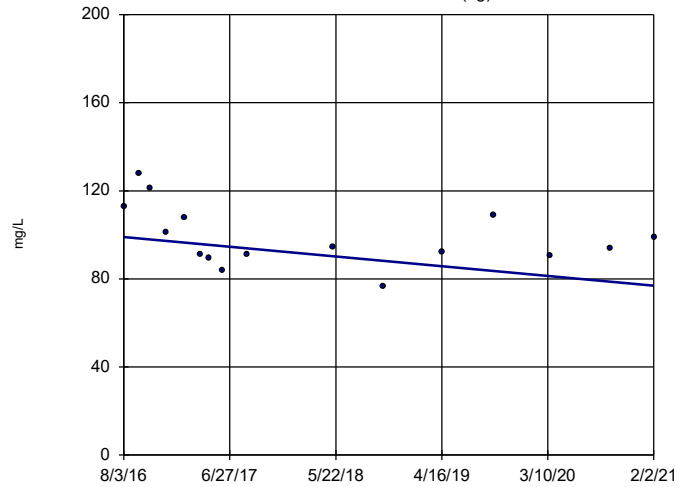
Sen's Slope Estimator GS-AP-MW-21



n = 16
Slope = 80.56 units per year.
Mann-Kendall statistic = 92
critical = 58
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-8 (bg)



n = 16
Slope = -4.904 units per year.
Mann-Kendall statistic = -34
critical = -58
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 5/22/2021 10:42 AM View: Trend Tests
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

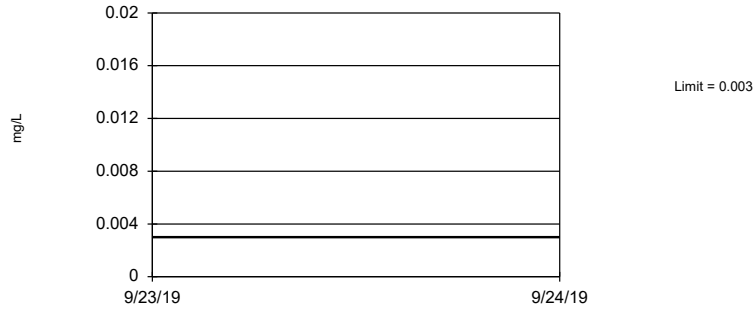
FIGURE F.

Upper Tolerance Limits - Appendix IV

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 7/22/2020, 3:32 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	n/a	27	n/a	n/a	92.59	n/a	n/a	0.2503	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	27	n/a	n/a	77.78	n/a	n/a	0.2503	NP Inter(NDs)
Barium (mg/L)	0.208	n/a	27	n/a	n/a	0	n/a	n/a	0.2503	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	27	n/a	n/a	85.19	n/a	n/a	0.2503	NP Inter(NDs)
Cobalt (mg/L)	0.005	n/a	27	n/a	n/a	81.48	n/a	n/a	0.2503	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.03	n/a	27	0.3444	0.3029	0	None	No	0.05	Inter
Fluoride (mg/L)	0.2499	n/a	29	0.1268	0.05508	0	None	No	0.05	Inter
Lead (mg/L)	0.005	n/a	27	n/a	n/a	96.3	n/a	n/a	0.2503	NP Inter(NDs)
Lithium (mg/L)	0.0809	n/a	27	n/a	n/a	62.96	n/a	n/a	0.2503	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	27	n/a	n/a	92.59	n/a	n/a	0.2503	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 27 background values. 92.59% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Antimony Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

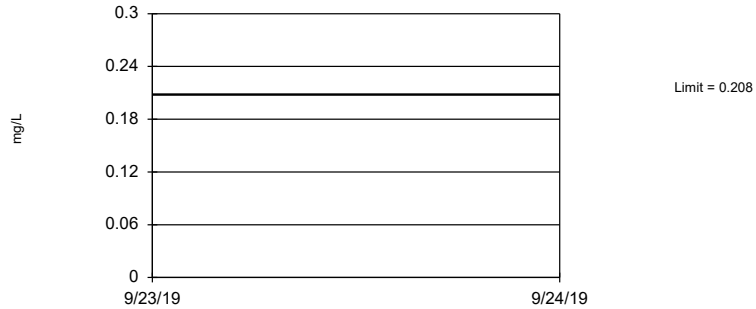
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 27 background values. 77.78% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Arsenic Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

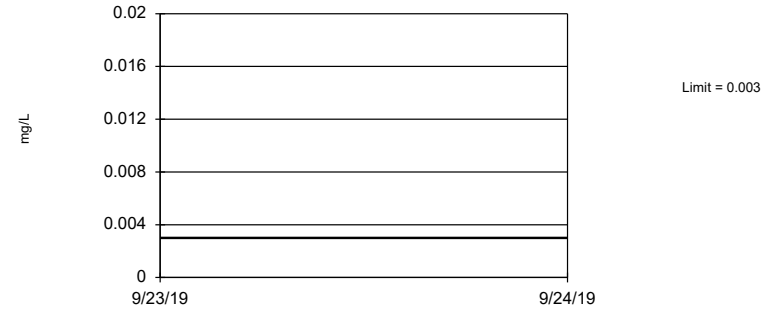
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Barium Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

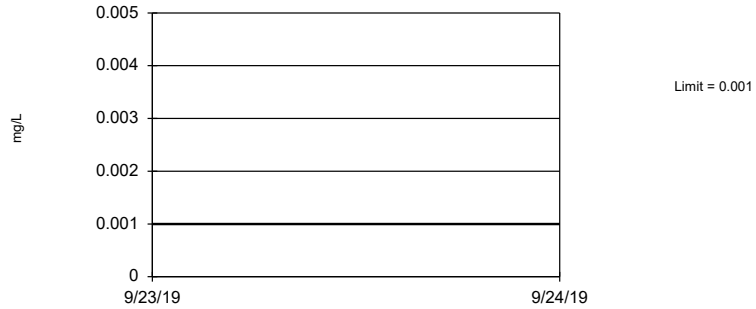
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Beryllium Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Cadmium Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 27 background values. 85.19% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Chromium Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

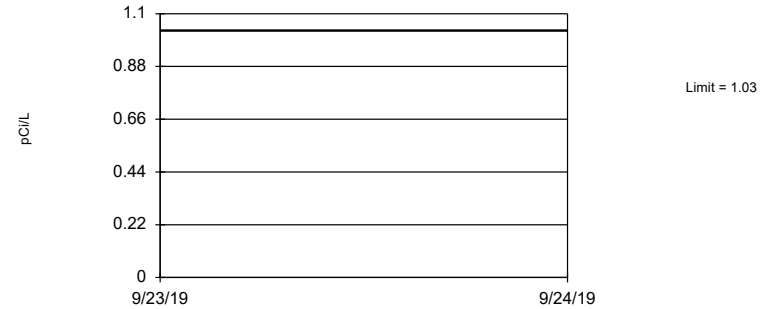
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 27 background values. 81.48% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Cobalt Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

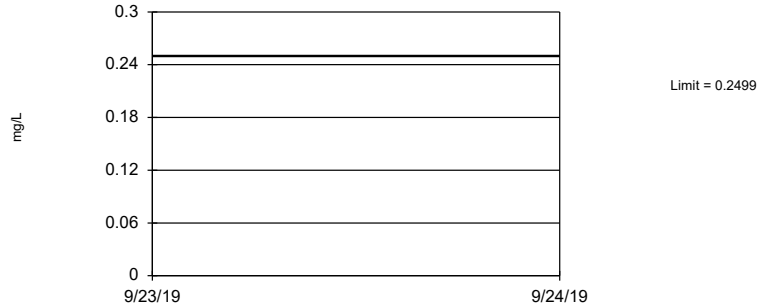
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.3444, Std. Dev.=0.3029, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.894. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.1268, Std. Dev.=0.05508, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9702, critical = 0.898. Report alpha = 0.05.

Constituent: Fluoride Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

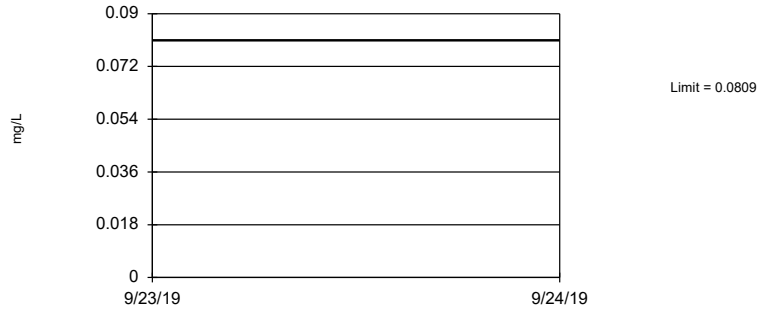
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 27 background values. 96.3% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Lead Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

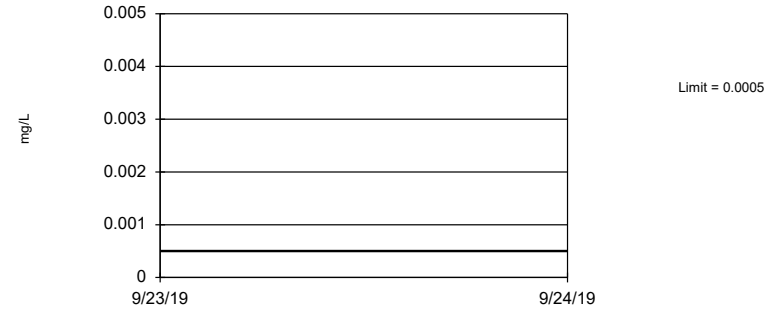
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 27 background values. 62.96% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Lithium Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Mercury Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 27 background values. 92.59% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Molybdenum Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

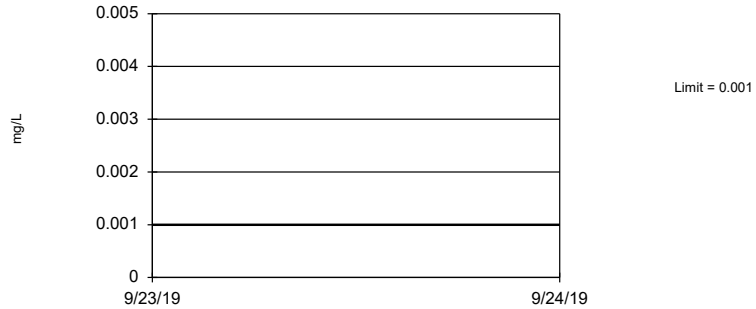
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Selenium Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Thallium Analysis Run 7/22/2020 3:30 PM View: UTL's - Appendix IV
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

FIGURE G.

GORGAS ASH POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.208	2
Beryllium	mg/L	0.003	0.004
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.005	0.006
Combined Radium-226/228	pCi/L	1.03	5
Fluoride	mg/L	0.2499	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.0809	0.0809 / 0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	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 2019.
5. Lithium background constructed by including newly installed upgradient well GS-AP-MW-17V. Lithium GWPS limits constructed with and without GS-AP-MW-17V, respectively.

FIGURE H.

Confidence Interval Summary Table Set 1 of 2 - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:57 AM

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	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.0809	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.0809	Yes	8	0.1496	0.07549	0	None	x ^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.0809	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.0809	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.0809	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.

Confidence Interval Summary Table Set 1 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:57 AM

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	0.0022	0.000518	0.006	No	8	0.001227	0.0005736	62.5	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-15	0.001015	0.000636	0.006	No	8	0.0009083	0.0001481	50	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-16D	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.001015	0.000828	0.006	No	8	0.0009916	0.00006611	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.001015	0.00055	0.006	No	8	0.0009485	0.0001627	75	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.001015	0.006	No	8	0.001019	0.00001237	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.02429	0.006175	0.01	No	8	0.01523	0.008546	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01775	0.006514	0.01	No	8	0.01213	0.005301	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.005	0.000491	0.01	No	8	0.004436	0.001594	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.005503	0.002317	0.01	No	8	0.00391	0.001503	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-18	0.0922	0.00481	0.01	No	8	0.02897	0.03777	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-19	0.003199	0.001458	0.01	No	8	0.002329	0.0008211	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.005	0.000624	0.01	No	8	0.004453	0.001547	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-6D	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01287	0.006042	0.01	No	8	0.009456	0.003221	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.2028	0.1487	2	No	8	0.1758	0.02555	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2287	0.1001	2	No	8	0.1644	0.06068	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3476	0.3101	2	No	8	0.3289	0.0177	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.1237	0.07384	2	No	8	0.09879	0.02354	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-18	0.109	0.0435	2	No	8	0.07625	0.0309	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.3592	0.31	2	No	8	0.3346	0.02323	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.07224	0.05304	2	No	8	0.06251	0.009924	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1443	0.05542	2	No	8	0.09988	0.04194	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.914	0.378	2	No	8	0.7404	0.2228	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-6S	0.1368	0.07556	2	No	8	0.1062	0.02891	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.1425	0.04624	2	No	8	0.09436	0.0454	0	None	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.001015	0.004	No	8	0.001024	0.00002652	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00138	0.001015	0.004	No	8	0.001061	0.000129	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.001015	0.000794	0.004	No	8	0.0009874	0.00007814	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15	0.01	0.00072	0.1	No	8	0.00884	0.003281	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-16D	0.01	0.00107	0.1	No	8	0.008884	0.003157	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.01	0.00255	0.1	No	8	0.009069	0.002634	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-18	0.01	0.000296	0.1	No	8	0.008787	0.003431	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.01	0.000258	0.1	No	8	0.008782	0.003444	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.01	0.000505	0.1	No	8	0.008813	0.003357	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.01	0.000705	0.1	No	8	0.007862	0.003979	75	None	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-6D	0.01	0.000264	0.1	No	8	0.008783	0.003442	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6S	0.01	0.000268	0.1	No	8	0.008783	0.003441	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.01	0.00435	0.1	No	8	0.00764	0.002722	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-16D	0.005	0.000252	0.006	No	8	0.004406	0.001679	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.005	0.000102	0.006	No	8	0.004388	0.001732	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.005	0.000663	0.006	No	8	0.004458	0.001533	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.005	0.00231	0.006	No	8	0.00407	0.001235	50	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.7899	0.2311	5	No	8	0.5105	0.2636	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9646	0.1343	5	No	8	0.5495	0.3917	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.5696	0.08436	5	No	8	0.327	0.2289	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.375	0.02109	5	No	8	0.6397	0.834	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-18	0.9024	0.2536	5	No	8	0.578	0.306	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.516	0.3851	5	No	8	0.9504	0.5333	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	2.088	0.1248	5	No	8	1.04	1.26	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.184	0.3497	5	No	8	0.753	0.4452	0	None	sqrt(x)	0.01	Param.

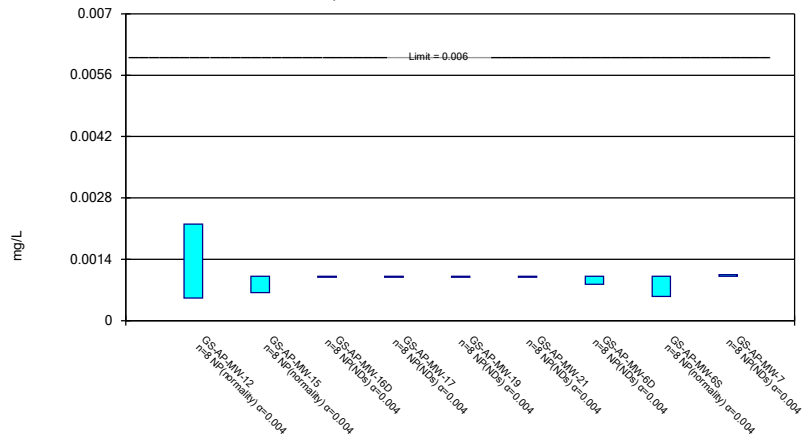
Confidence Interval Summary Table Set 1 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:57 AM

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-6D	0.6816	0.2797	5	No	8	0.4779	0.2217	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.148	0.2163	5	No	8	0.6824	0.4397	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.282	0.06134	5	No	8	0.6715	0.5757	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.2427	0.1208	4	No	8	0.1818	0.05752	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.6982	0.4821	4	No	8	0.5901	0.102	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1444	0.1037	4	No	8	0.1238	0.02112	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3533	0.2407	4	No	8	0.297	0.05312	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-18	0.6213	0.4379	4	No	8	0.5296	0.08652	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3757	0.2948	4	No	8	0.3353	0.03821	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	1.013	0.7989	4	No	8	0.9058	0.1008	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2559	0.2056	4	No	8	0.2308	0.02369	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.16	0.13	4	No	8	0.1385	0.01219	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-6S	0.2458	0.1025	4	No	8	0.1741	0.06758	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1221	0.09386	4	No	8	0.108	0.01334	0	None	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.005	0.0000874	0.015	No	8	0.004386	0.001737	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.005	0.000873	0.015	No	8	0.004484	0.001459	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.005	0.000175	0.015	No	8	0.004397	0.001706	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.005	0.00207	0.015	No	8	0.003914	0.001268	50	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-12	0.058	0.0249	0.0809	No	8	0.0347	0.01214	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.0809	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03641	0.03309	0.0809	No	8	0.03475	0.001565	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06377	0.05608	0.0809	No	8	0.05993	0.00363	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.0809	Yes	8	0.1496	0.07549	0	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-19	0.04478	0.03797	0.0809	No	8	0.04138	0.003214	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04781	0.04027	0.0809	No	8	0.04404	0.003557	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.0809	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.0809	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6S	0.06038	0.001682	0.0809	No	8	0.03316	0.0246	25	Cohen's	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.0809	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.01	0.00444	0.1	No	8	0.008516	0.002253	62.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-15	0.07032	0.03416	0.1	No	8	0.05224	0.01706	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.01	0.00014	0.1	No	8	0.008767	0.003486	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.008985	0.003965	0.1	No	8	0.006475	0.002368	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-18	0.048	0.02069	0.1	No	8	0.034	0.0155	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.007729	0.004464	0.1	No	8	0.006096	0.00154	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.007527	0.002133	0.1	No	8	0.00483	0.002544	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.0952	0.04432	0.1	No	8	0.06976	0.024	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.00959	0.00537	0.1	No	8	0.007471	0.001847	0	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-6S	0.02891	0.002645	0.1	No	8	0.015	0.0143	12.5	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6S	0.01	0.000794	0.05	No	8	0.008849	0.003255	87.5	None	No	0.004	NP (NDs)

Non-Parametric Confidence Interval

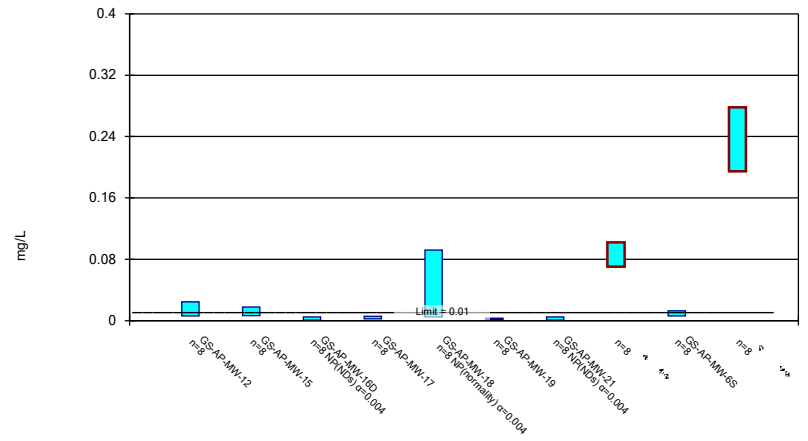
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

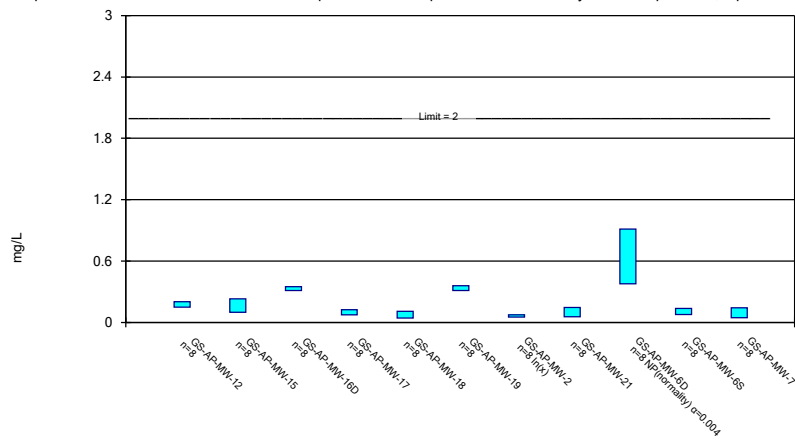
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

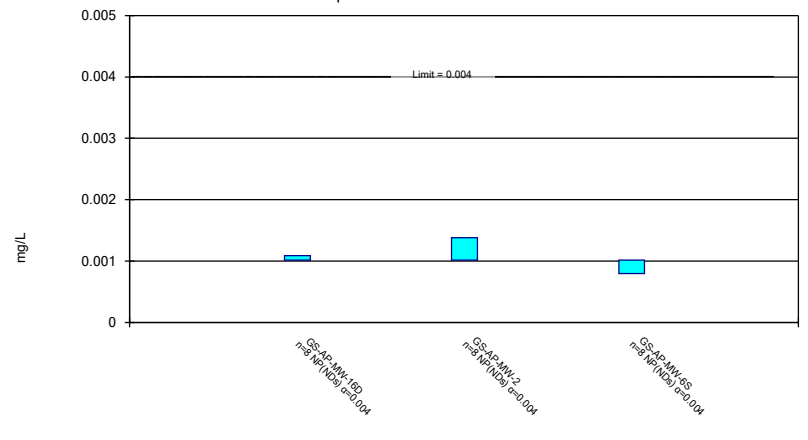
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

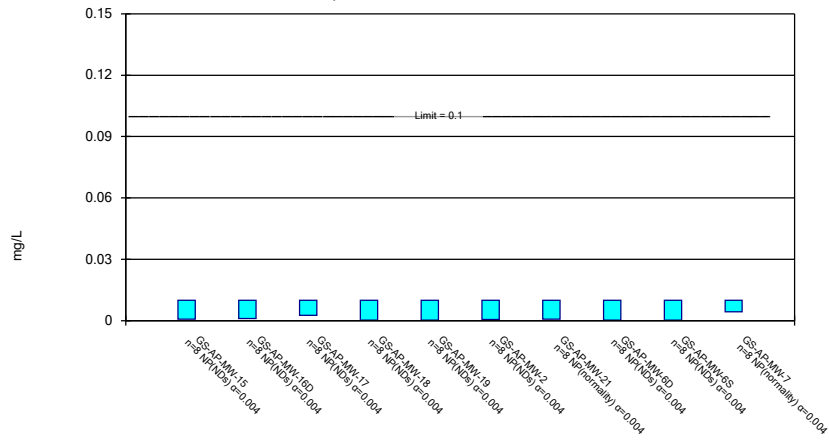
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

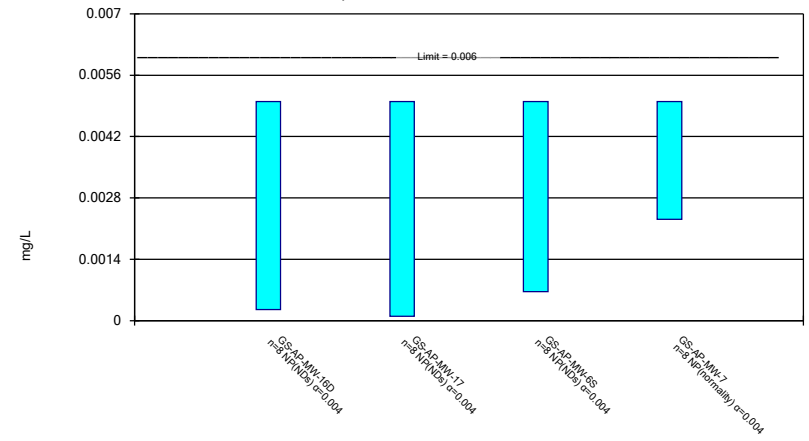
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

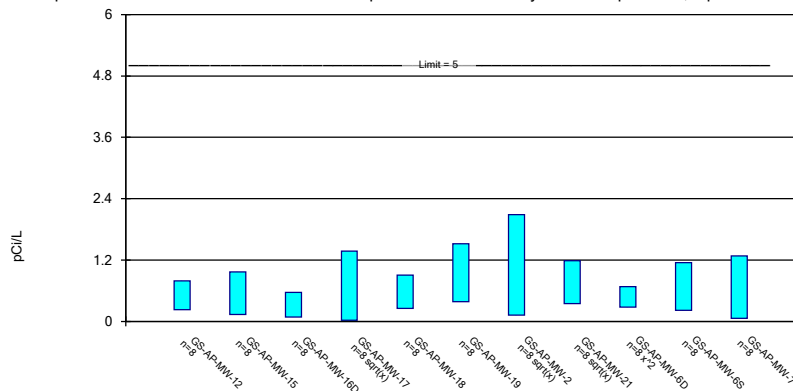
Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

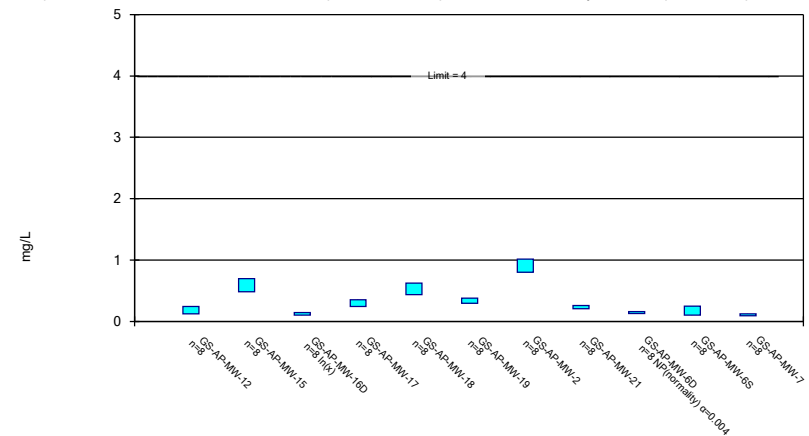
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

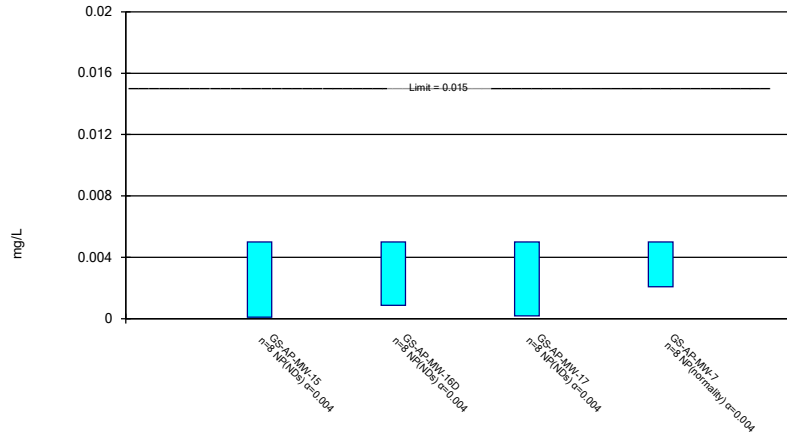
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

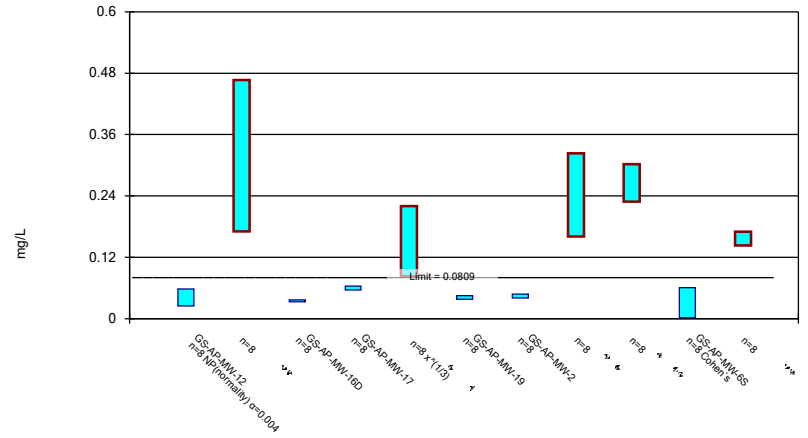
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

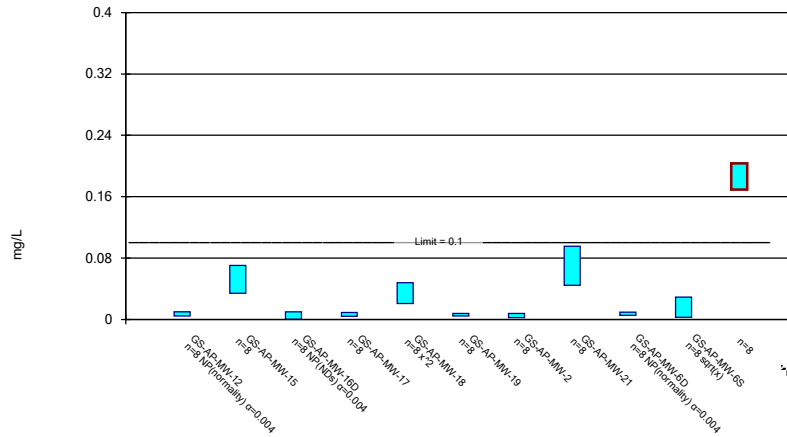
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

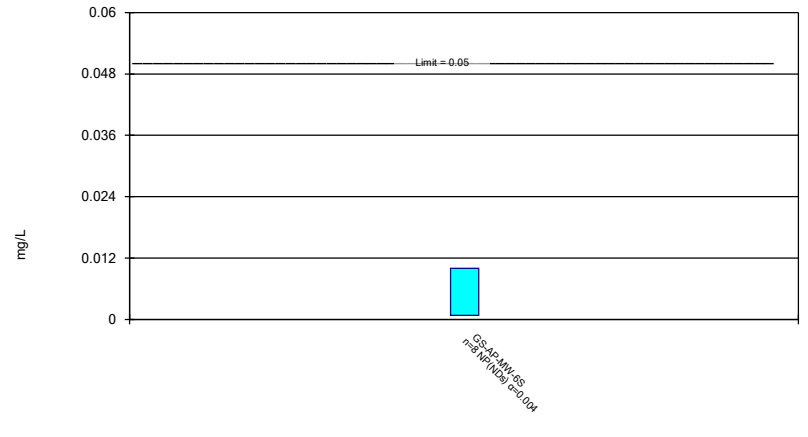
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 5/22/2021 10:53 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

FIGURE I.

Confidence Interval Summary Table Set 2 of 2 - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:59 AM

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	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.04	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06377	0.05608	0.04	Yes	8	0.05993	0.00363	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.04	Yes	8	0.1496	0.07549	0	None	x ^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04781	0.04027	0.04	Yes	8	0.04404	0.003557	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.04	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.04	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.04	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.

Confidence Interval Summary Table Set 2 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:59 AM

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	0.0022	0.000518	0.006	No	8	0.001227	0.0005736	62.5	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-15	0.001015	0.000636	0.006	No	8	0.0009083	0.0001481	50	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-16D	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.001015	0.001015	0.006	No	8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.001015	0.000828	0.006	No	8	0.0009916	0.00006611	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.001015	0.00055	0.006	No	8	0.0009485	0.0001627	75	None	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.001015	0.006	No	8	0.001019	0.00001237	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.02429	0.006175	0.01	No	8	0.01523	0.008546	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01775	0.006514	0.01	No	8	0.01213	0.005301	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.005	0.000491	0.01	No	8	0.004436	0.001594	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.005503	0.002317	0.01	No	8	0.00391	0.001503	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-18	0.0922	0.00481	0.01	No	8	0.02897	0.03777	0	None	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-19	0.003199	0.001458	0.01	No	8	0.002329	0.0008211	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.005	0.000624	0.01	No	8	0.004453	0.001547	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-6D	0.1021	0.07019	0.01	Yes	8	0.08614	0.01505	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01287	0.006042	0.01	No	8	0.009456	0.003221	0	None	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2781	0.1949	0.01	Yes	8	0.2365	0.03926	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.2028	0.1487	2	No	8	0.1758	0.02555	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2287	0.1001	2	No	8	0.1644	0.06068	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3476	0.3101	2	No	8	0.3289	0.0177	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.1237	0.07384	2	No	8	0.09879	0.02354	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-18	0.109	0.0435	2	No	8	0.07625	0.0309	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.3592	0.31	2	No	8	0.3346	0.02323	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.07224	0.05304	2	No	8	0.06251	0.009924	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1443	0.05542	2	No	8	0.09988	0.04194	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.914	0.378	2	No	8	0.7404	0.2228	0	None	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-6S	0.1368	0.07556	2	No	8	0.1062	0.02891	0	None	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.1425	0.04624	2	No	8	0.09436	0.0454	0	None	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.001015	0.004	No	8	0.001024	0.00002652	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00138	0.001015	0.004	No	8	0.001061	0.000129	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.001015	0.000794	0.004	No	8	0.0009874	0.00007814	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15	0.01	0.00072	0.1	No	8	0.00884	0.003281	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-16D	0.01	0.00107	0.1	No	8	0.008884	0.003157	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.01	0.00255	0.1	No	8	0.009069	0.002634	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-18	0.01	0.000296	0.1	No	8	0.008787	0.003431	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.01	0.000258	0.1	No	8	0.008782	0.003444	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.01	0.000505	0.1	No	8	0.008813	0.003357	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.01	0.000705	0.1	No	8	0.007862	0.003979	75	None	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-6D	0.01	0.000264	0.1	No	8	0.008783	0.003442	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6S	0.01	0.000268	0.1	No	8	0.008783	0.003441	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.01	0.00435	0.1	No	8	0.00764	0.002722	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-16D	0.005	0.000252	0.006	No	8	0.004406	0.001679	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.005	0.000102	0.006	No	8	0.004388	0.001732	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.005	0.000663	0.006	No	8	0.004458	0.001533	87.5	None	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.005	0.00231	0.006	No	8	0.00407	0.001235	50	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.7899	0.2311	5	No	8	0.5105	0.2636	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9646	0.1343	5	No	8	0.5495	0.3917	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.5696	0.08436	5	No	8	0.327	0.2289	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.375	0.02109	5	No	8	0.6397	0.834	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-18	0.9024	0.2536	5	No	8	0.578	0.306	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.516	0.3851	5	No	8	0.9504	0.5333	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	2.088	0.1248	5	No	8	1.04	1.26	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.184	0.3497	5	No	8	0.753	0.4452	0	None	sqrt(x)	0.01	Param.

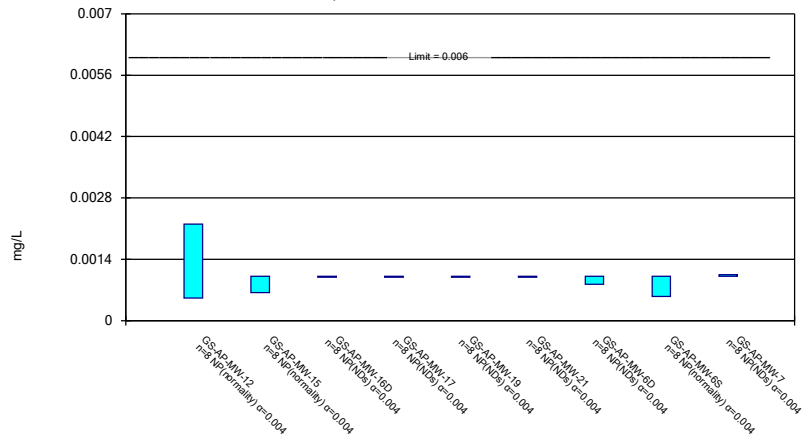
Confidence Interval Summary Table Set 2 of 2 - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 5/22/2021, 10:59 AM

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-6D	0.6816	0.2797	5	No	8	0.4779	0.2217	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.148	0.2163	5	No	8	0.6824	0.4397	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.282	0.06134	5	No	8	0.6715	0.5757	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.2427	0.1208	4	No	8	0.1818	0.05752	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.6982	0.4821	4	No	8	0.5901	0.102	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1444	0.1037	4	No	8	0.1238	0.02112	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3533	0.2407	4	No	8	0.297	0.05312	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-18	0.6213	0.4379	4	No	8	0.5296	0.08652	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3757	0.2948	4	No	8	0.3353	0.03821	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	1.013	0.7989	4	No	8	0.9058	0.1008	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2559	0.2056	4	No	8	0.2308	0.02369	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.16	0.13	4	No	8	0.1385	0.01219	0	None	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-6S	0.2458	0.1025	4	No	8	0.1741	0.06758	0	None	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1221	0.09386	4	No	8	0.108	0.01334	0	None	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.005	0.0000874	0.015	No	8	0.004386	0.001737	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.005	0.000873	0.015	No	8	0.004484	0.001459	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.005	0.000175	0.015	No	8	0.004397	0.001706	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.005	0.00207	0.015	No	8	0.003914	0.001268	50	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-12	0.058	0.0249	0.04	No	8	0.0347	0.01214	0	None	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.4669	0.1704	0.04	Yes	8	0.3186	0.1398	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03641	0.03309	0.04	No	8	0.03475	0.001565	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06377	0.05608	0.04	Yes	8	0.05993	0.00363	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-18	0.2199	0.08324	0.04	Yes	8	0.1496	0.07549	0	None	x^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-19	0.04478	0.03797	0.04	No	8	0.04138	0.003214	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04781	0.04027	0.04	Yes	8	0.04404	0.003557	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3231	0.1609	0.04	Yes	8	0.242	0.07654	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3018	0.2287	0.04	Yes	8	0.2653	0.03447	0	None	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6S	0.06038	0.001682	0.04	No	8	0.03316	0.0246	25	Cohen's	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1699	0.1433	0.04	Yes	8	0.1566	0.01257	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.01	0.00444	0.1	No	8	0.008516	0.002253	62.5	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-15	0.07032	0.03416	0.1	No	8	0.05224	0.01706	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.01	0.00014	0.1	No	8	0.008767	0.003486	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.008985	0.003965	0.1	No	8	0.006475	0.002368	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-18	0.048	0.02069	0.1	No	8	0.034	0.0155	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.007729	0.004464	0.1	No	8	0.006096	0.00154	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.007527	0.002133	0.1	No	8	0.00483	0.002544	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.0952	0.04432	0.1	No	8	0.06976	0.024	0	None	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.00959	0.00537	0.1	No	8	0.007471	0.001847	0	None	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-6S	0.02891	0.002645	0.1	No	8	0.015	0.0143	12.5	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.2033	0.1692	0.1	Yes	8	0.1863	0.01609	0	None	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6S	0.01	0.000794	0.05	No	8	0.008849	0.003255	87.5	None	No	0.004	NP (NDs)

Non-Parametric Confidence Interval

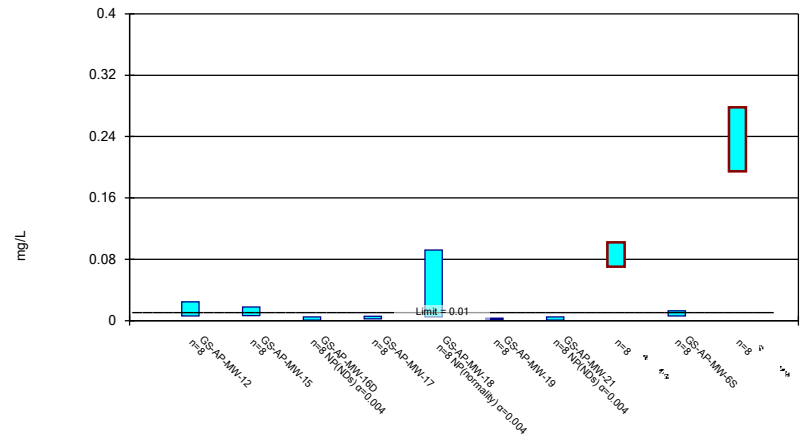
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 5/22/2021 10:57 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

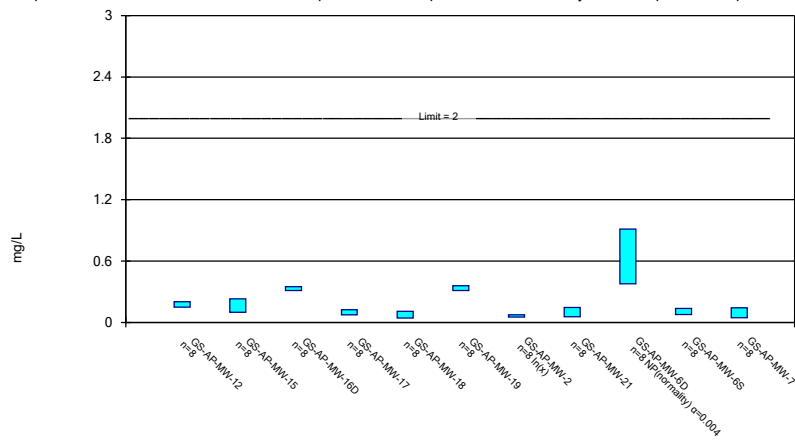
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

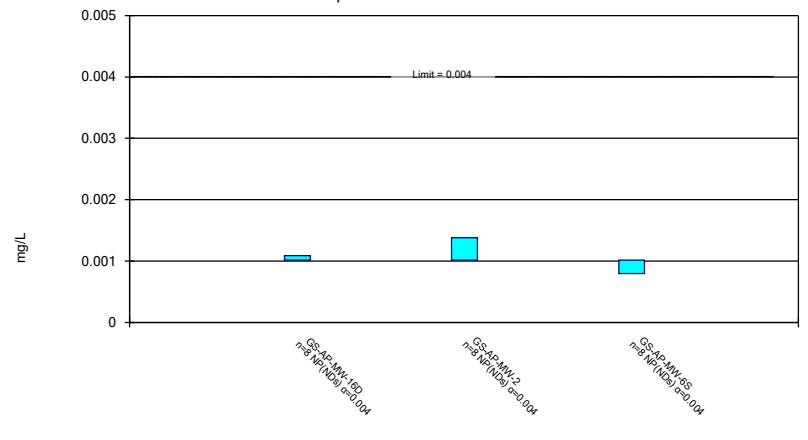
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

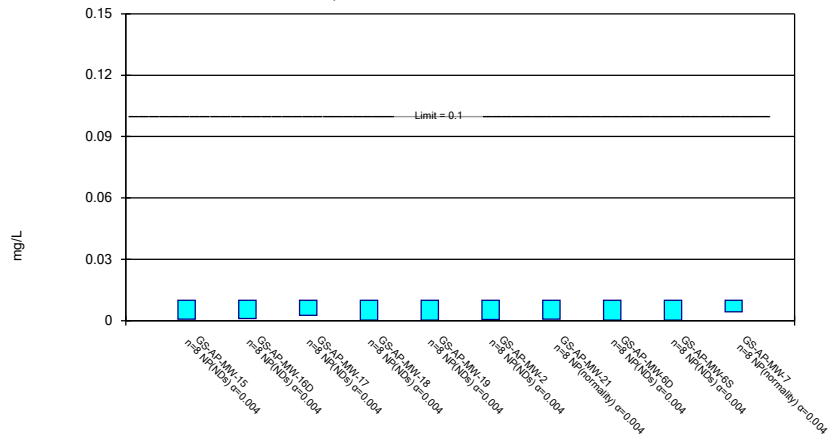
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

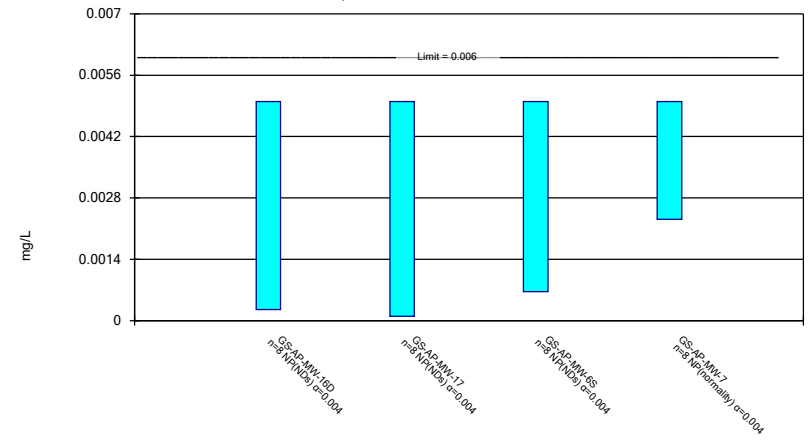
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

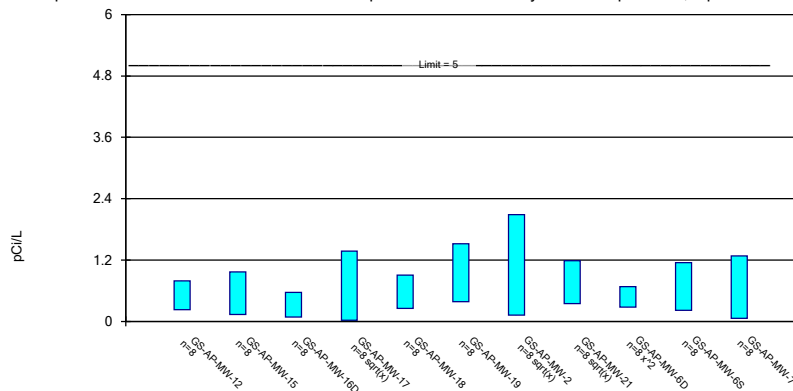
Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

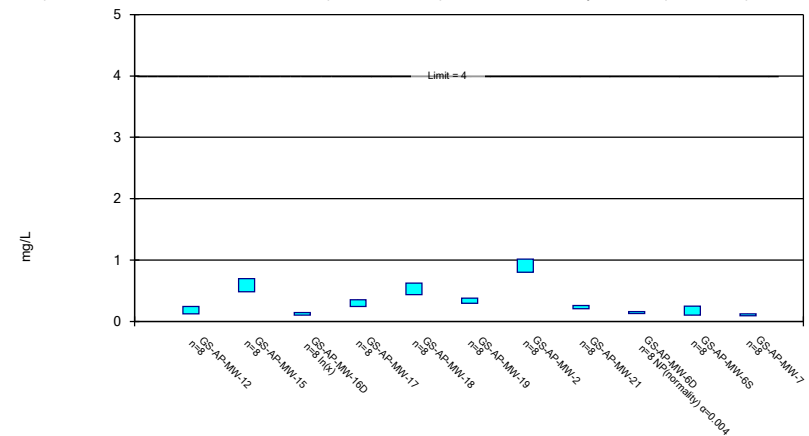
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

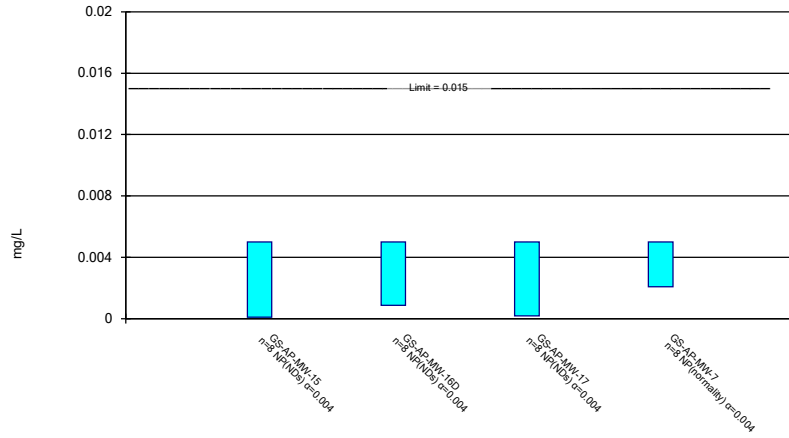
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

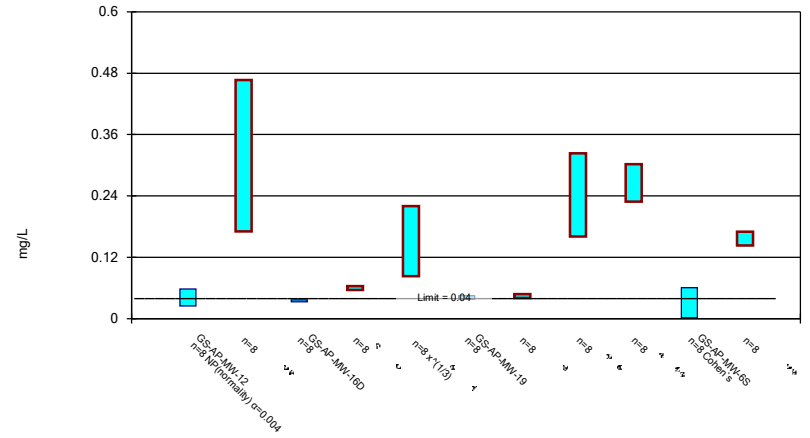
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

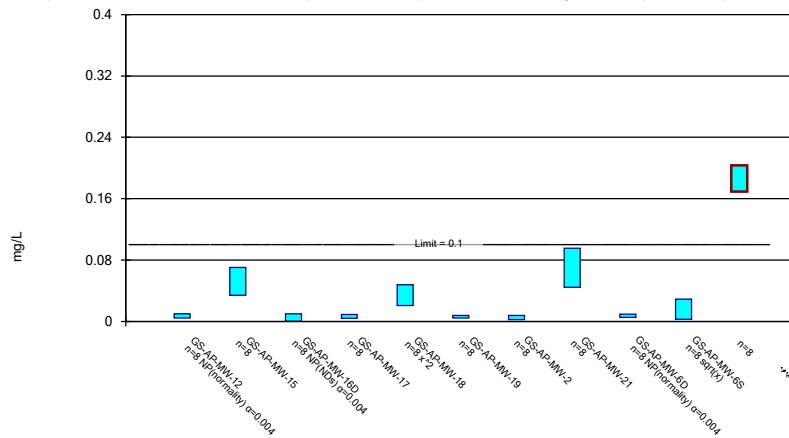
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

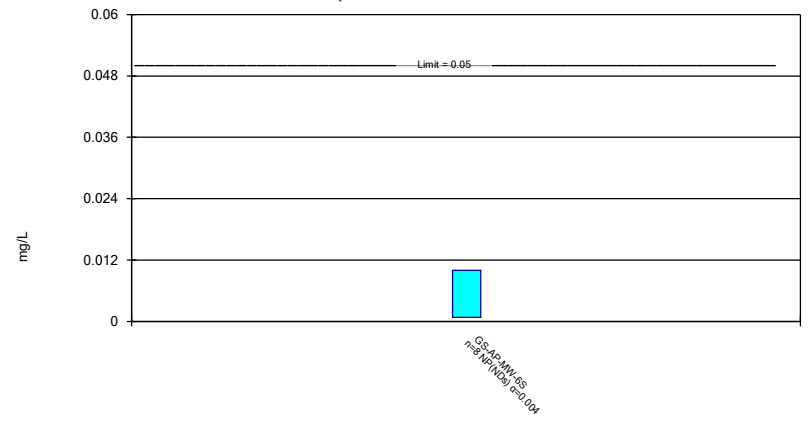
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

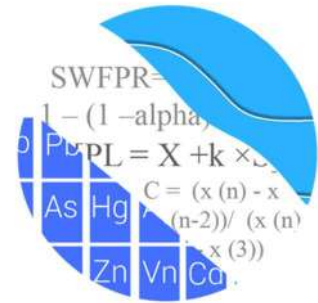
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 5/22/2021 10:58 AM View: Confidence Intervals 1
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GROUNDWATER STATS CONSULTING



January 10, 2022

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Gorgas Ash Pond
2nd Semi-Annual Statistical Analysis – August 2021 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 2nd Semi-Annual August 2021 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-2, GS-AP-MW-3, GS-AP-MW-6D, GS-AP-MW-6S, GS-AP-MW-7, GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-21, GS-AP-MW-9V, GS-AP-MW-12V, GS-AP-MW-15V, and GS-AP-MW-21V
- **Delineation wells:** GS-AP-PZ-16, GS-AP-PZ-22, GS-AP-MW-23H, GS-AP-MW-24H, GS-AP-MW-25HA, GS-AP-MW-26H, GS-AP-MW-28H, GS-AP-MW-29H, 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-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.

Since the previous analysis, downgradient well GS-AP-MW-18 and delineation wells GS-AP-MW-18V and GS-AP-PZ-18 were abandoned; therefore, these wells were not included in this report. Although upgradient well GS-AP-MW-13 was abandoned in April 2019, data from this well is used for constructing interwell statistical limits as historical concentrations represent the groundwater quality upgradient of the facility. New upgradient well GS-AP-MW-16S is being evaluated for inclusion into the monitoring well network. Data are plotted on the time series graphs and box plots, but are not yet used for the purpose of constructing statistical limits. Piezometers GS-AP-MW-9V, GS-AP-MW-12V, GS-AP-MW-15V, and GS-AP-MW-21V have been redesignated as downgradient wells. Data from new downgradient well GS-AP-MW-3 are also plotted on the time series graphs and box plots until sufficient data are available for statistical analyses.

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 Andrew Collins, Project Manager for 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: 35
- # 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 – August 2021

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 August 2021 to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

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) and GS-AP-MW-17
- pH: GS-AP-MW-12 and 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-6S
- Fluoride: GS-AP-MW-2
- pH: GS-AP-MW-8 (upgradient)
- Sulfate: GS-AP-MW-6S

Evaluation of Appendix IV Parameters – August 2021

Data from upgradient wells for Appendix IV parameters were assessed for outliers during this analysis. 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 this 2021 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2023 2nd 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 August 2021 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, GS-AP-MW-7, and GS-AP-MW-15V
- 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,

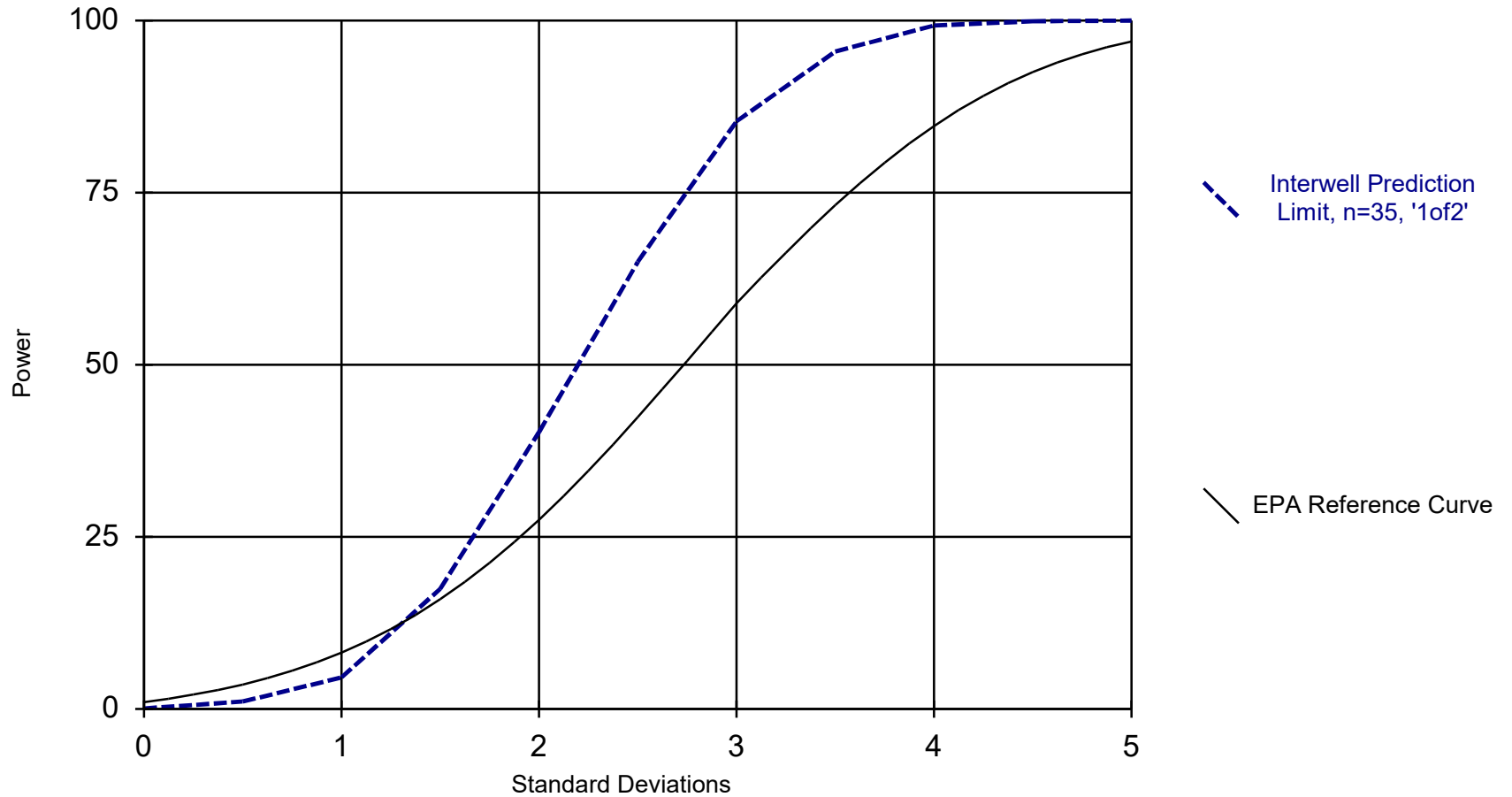


Easton Rayner
Groundwater Statistician



Andrew Collins
Project Manager

Interwell Power Curve



Kappa = 2.119, based on 11 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

100% Non-Detects: Appendix IV Downgradient

Analysis Run 1/4/2022 12:01 AM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Antimony (mg/L)

GS-AP-MW-2, 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-6S, 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-6S, 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-6S, GS-AP-MW-7, GS-AP-MW-9V

Interwell Prediction Limit Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:43 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	8/4/2021	0.117	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	7/27/2021	1.29	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1015	n/a	7/27/2021	0.873	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	8/9/2021	1.62	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	8/10/2021	54.8	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	7/27/2021	55.5	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	7/27/2021	52.6	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.182	n/a	8/3/2021	6.22	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.182	n/a	8/3/2021	5.88	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.182	n/a	8/10/2021	4.83	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.182	n/a	8/4/2021	7.25	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.182	n/a	8/4/2021	54.8	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.182	n/a	7/27/2021	11.1	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	4.182	n/a	7/27/2021	17	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.182	n/a	8/9/2021	7.03	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-9V	4.182	n/a	8/10/2021	18.8	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.277	n/a	8/3/2021	0.615	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.277	n/a	8/3/2021	0.3	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.277	n/a	8/10/2021	0.283	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.277	n/a	8/4/2021	0.932	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-12	7.76	5.02	8/9/2021	7.98	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.02	8/3/2021	11.56	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.02	8/3/2021	8.6	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-2	7.76	5.02	8/4/2021	9.08	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.02	8/4/2021	10.95	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	8/9/2021	17.3	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	8/4/2021	16.8	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	8/4/2021	231	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	7/27/2021	64.4	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	15.2	n/a	7/27/2021	114	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	8/9/2021	133	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9V	15.2	n/a	8/10/2021	32.7	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	8/3/2021	632	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	8/3/2021	435	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	8/4/2021	594	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2

Interwell Prediction Limit Summary - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
TDS (mg/L)	GS-AP-MW-16D	368	n/a	8/9/2021	207	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	8/3/2021	435	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-19	368	n/a	8/10/2021	307	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	368	n/a	8/4/2021	316	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	8/4/2021	594	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	368	n/a	7/27/2021	262	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6S	368	n/a	7/27/2021	273	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	368	n/a	8/9/2021	340	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-9V	368	n/a	8/10/2021	309	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2

Trend Test - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:47 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-6D	0.04383	81	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.0724	-87	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04228	79	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.367	64	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.603	84	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.677	92	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.262	104	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6673	123	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1692	68	63	Yes	17	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-17	0.03151	104	74	Yes	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1588	-119	-74	Yes	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	0.08955	76	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.3813	81	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.05508	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	3.913	68	63	Yes	17	5.882	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	52.6	124	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6S	-28.3	-66	-63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	29.8	82	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	74.69	100	63	Yes	17	0	n/a	n/a	0.01	NP

Trend Test - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:47 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)	-0.005646	-5	-14	No	6	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	0.007998	23	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6D	0.04383	81	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.0724	-87	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04228	79	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-8 (bg)	0	16	63	No	17	94.12	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)	0.9799	7	14	No	6	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.367	64	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.603	84	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6S	-2.649	-34	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-8 (bg)	-0.9031	-50	-63	No	17	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	-0.2019	-18	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	0.7115	46	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17V (bg)	-0.1469	-3	-14	No	6	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-0.1656	-42	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	0.2604	20	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.677	92	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.262	104	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6S	-1.043	-49	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6673	123	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1692	68	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-9V	9.372	6	8	No	4	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-15	-0.01602	-17	-68	No	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17	0.03151	104	74	Yes	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17V (bg)	0.01014	7	14	No	6	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-19	-0.0002583	-2	-68	No	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1588	-119	-74	Yes	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-8 (bg)	0.006745	48	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	0.08955	76	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-13 (bg)	-0.05825	-34	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.3813	81	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	0	-4	-74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17V (bg)	-0.05141	-6	-14	No	6	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.0431	70	74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-21	0.1896	62	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.05508	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	3.913	68	63	Yes	17	5.882	n/a	n/a	0.01	NP
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-17V (bg)	-2.041	-9	-14	No	6	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	4.644	36	68	No	18	11.11	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	52.6	124	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6D	1.301	22	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6S	-28.3	-66	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-7	-1.673	-27	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-8 (bg)	0.1756	25	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-9V	11.58	6	8	No	4	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	44.52	48	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	29.8	82	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17V (bg)	-5.308	-3	-14	No	6	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	74.69	100	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (bg)	-3.511	-29	-63	No	17	0	n/a	n/a	0.01	NP

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

GORGAS ASH POND GWPS			
Analyte	Units	Background	GWPS
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 1/5/2022, 4:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	GS-AP-MW-15V	0.0167	0.0105	0.01	Yes	4	0	No	0.0625	NP (normality)
Arsenic (mg/L)	GS-AP-MW-6D	0.1055	0.07816	0.01	Yes	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.285	0.207	0.01	Yes	8	0	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.5151	0.2189	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3232	0.1746	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3145	0.2443	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.185	0.144	0.0809	Yes	8	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.208	0.1732	0.1	Yes	8	0	No	0.01	Param.

Confidence Intervals - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/5/2022, 4:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-AP-MW-12	0.001845	0.0003051	0.006	No	8	50	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-12V	0.002184	0.000588	0.006	No	6	0	sqrt(x)	0.01	Param.
Antimony (mg/L)	GS-AP-MW-15	0.00102	0.00065	0.006	No	8	50	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-15V	0.003598	-0.001351	0.006	No	4	0	x^2	0.01	Param.
Antimony (mg/L)	GS-AP-MW-16D	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21V	0.000939	0.000553	0.006	No	4	50	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-6D	0.00102	0.000828	0.006	No	8	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.00123	0.00055	0.006	No	8	62.5	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.00102	0.006	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.02022	0.003962	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-12V	0.002406	0.001012	0.01	No	6	16.67	sqrt(x)	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01819	0.007737	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15V	0.0167	0.0105	0.01	Yes	4	0	No	0.0625	NP (normality)
Arsenic (mg/L)	GS-AP-MW-16D	0.005	0.0001	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-17	0.005543	0.001612	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-19	0.003202	0.001443	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.005	0.00054	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-21V	0.02216	-0.005252	0.01	No	4	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6D	0.1055	0.07816	0.01	Yes	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01205	0.00588	0.01	No	8	0	x^(1/3)	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.285	0.207	0.01	Yes	8	0	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-9V	0.0005567	0.00003498	0.01	No	4	50	x^(1/3)	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.202	0.159	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-12V	1.585	1.008	2	No	6	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2093	0.0981	2	No	8	0	sqrt(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-15V	0.2196	0.1299	2	No	4	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3472	0.319	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.1238	0.07718	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.3572	0.3251	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.07393	0.0522	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1533	0.07247	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21V	0.07541	0.01594	2	No	4	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.914	0.378	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-6S	0.124	0.0682	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-7	0.1435	0.05594	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-9V	0.2355	0.133	2	No	4	0	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.00102	0.004	No	8	87.5	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00138	0.00102	0.004	No	8	87.5	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.00102	0.000794	0.004	No	8	87.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12	0.001015	0.00031	0.1	No	8	87.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12V	0.006232	0.00009006	0.1	No	6	16.67	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-15	0.001015	0.00072	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-15V	0.009593	-0.003853	0.1	No	4	0	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-16D	0.00107	0.00068	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-17	0.00255	0.00041	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-19	0.001015	0.000258	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-2	0.001015	0.000505	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-21	0.001015	0.00042	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-21V	0.001602	-0.0006045	0.1	No	4	50	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-6D	0.001015	0.00024	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-6S	0.001015	0.00024	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-7	0.005354	0.0005211	0.1	No	8	37.5	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-9V	0.0003379	0.0001957	0.1	No	4	50	ln(x)	0.01	Param.
Cobalt (mg/L)	GS-AP-MW-12V	0.00277	0.0002	0.006	No	6	50	No	0.0155	NP (normality)
Cobalt (mg/L)	GS-AP-MW-15	0.0002	0.00009	0.006	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-16D	0.000252	0.00009	0.006	No	8	75	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-17	0.0002	0.000102	0.006	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.000663	0.0002	0.006	No	8	75	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-7	0.003421	0.0001441	0.006	No	8	37.5	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.8814	0.3058	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12V	1.429	0.4436	5	No	6	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9853	0.2537	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15V	1.13	0.494	5	No	4	0	No	0.0625	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.7765	0.03499	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.409	0.0236	5	No	8	0	sqrt(x)	0.01	Param.

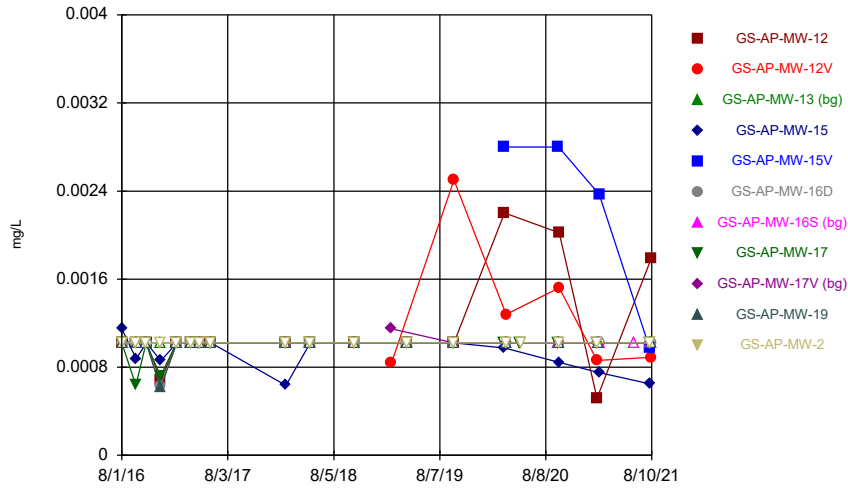
Confidence Intervals - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/5/2022, 4:05 PM

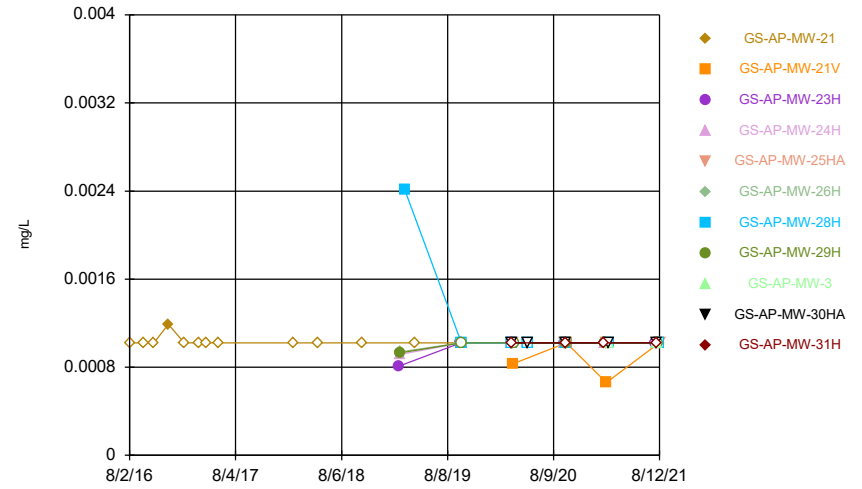
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.608	0.5609	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	1.661	0.178	5	No	8	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.182	0.3546	5	No	8	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21V	1.201	0.3964	5	No	4	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6D	0.8262	0.2886	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.165	0.2237	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.417	0.1941	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-9V	1.242	-0.3713	5	No	4	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.2141	0.1182	4	No	8	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12V	0.203	0.156	4	No	6	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.7004	0.4836	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15V	0.4342	0.1768	4	No	4	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1474	0.1057	4	No	8	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3559	0.2456	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3589	0.2849	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	0.9548	0.8147	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2573	0.2067	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21V	0.7423	0.3032	4	No	4	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.16	0.127	4	No	8	0	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-6S	0.2511	0.1222	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1224	0.09864	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-9V	0.1988	0.1562	4	No	4	0	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-12V	0.002313	-0.0001901	0.015	No	6	33.33	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.0002	0.00008	0.015	No	8	75	No	0.004	NP (normality)
Lead (mg/L)	GS-AP-MW-16D	0.000873	0.00016	0.015	No	8	75	No	0.004	NP (normality)
Lead (mg/L)	GS-AP-MW-17	0.0002	0.000175	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-6S	0.0002	0.00008	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.003033	0.0002415	0.015	No	8	37.5	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12	0.03957	0.02442	0.0809	No	8	0	x^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12V	0.05702	0.03405	0.0809	No	6	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.5151	0.2189	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15V	0.2472	0.02509	0.0809	No	4	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03642	0.03306	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.0658	0.05727	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-19	0.04371	0.03487	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04768	0.04019	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3232	0.1746	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21V	0.2154	0.01214	0.0809	No	4	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3145	0.2443	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6S	0.06449	0.01374	0.0809	No	8	12.5	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.185	0.144	0.0809	Yes	8	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-9V	0.03213	0.02842	0.0809	No	4	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.01	0.00444	0.1	No	8	50	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-12V	0.008095	0.0004982	0.1	No	6	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15	0.0733	0.0387	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15V	0.07019	0.01471	0.1	No	4	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.01	0.00014	0.1	No	8	75	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-17	0.008691	0.002679	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.006833	0.003774	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.00708	0.001822	0.1	No	8	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.08747	0.03708	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21V	0.1787	0.008684	0.1	No	4	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.01001	0.006117	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6S	0.03797	0.002996	0.1	No	8	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.208	0.1732	0.1	Yes	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-9V	0.004057	-0.0008289	0.1	No	4	50	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6S	0.01	0.000794	0.05	No	8	75	No	0.004	NP (normality)

FIGURE A.

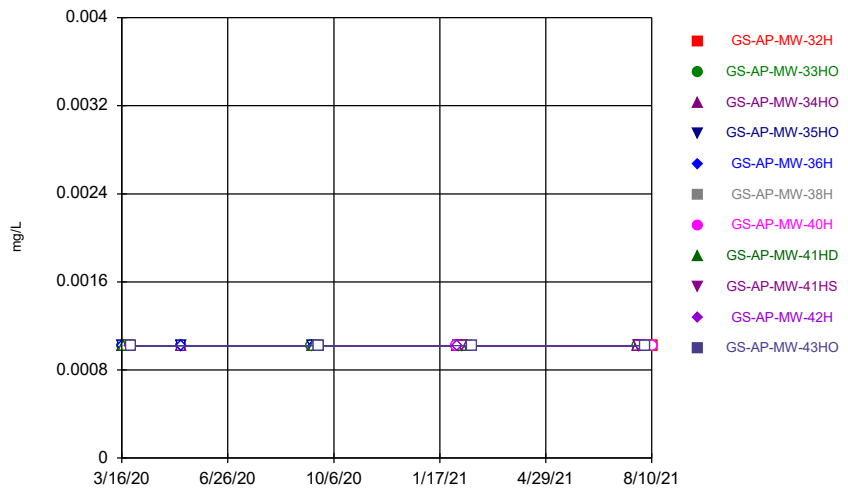
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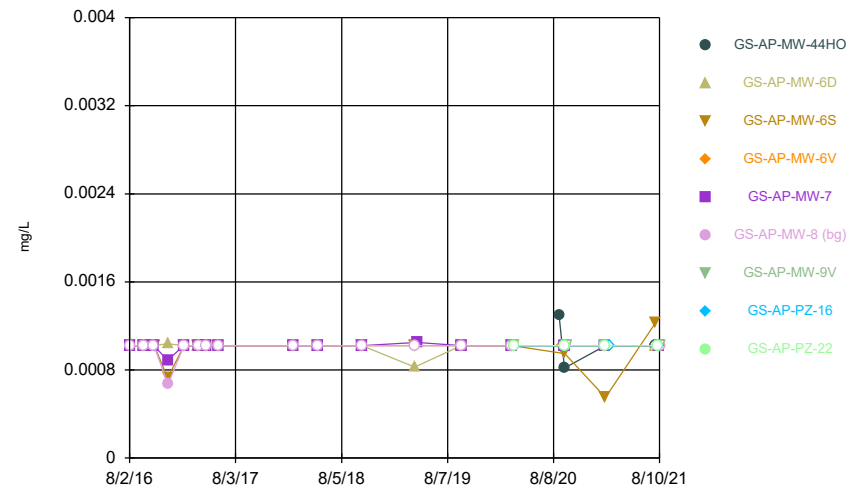
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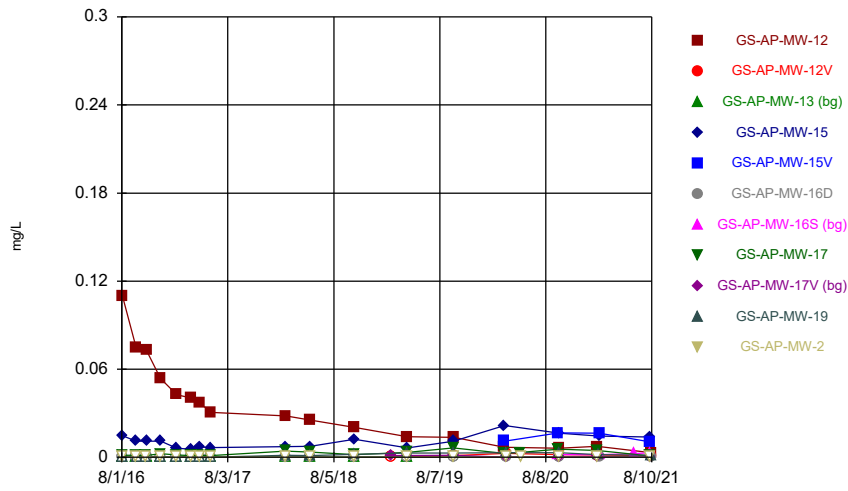
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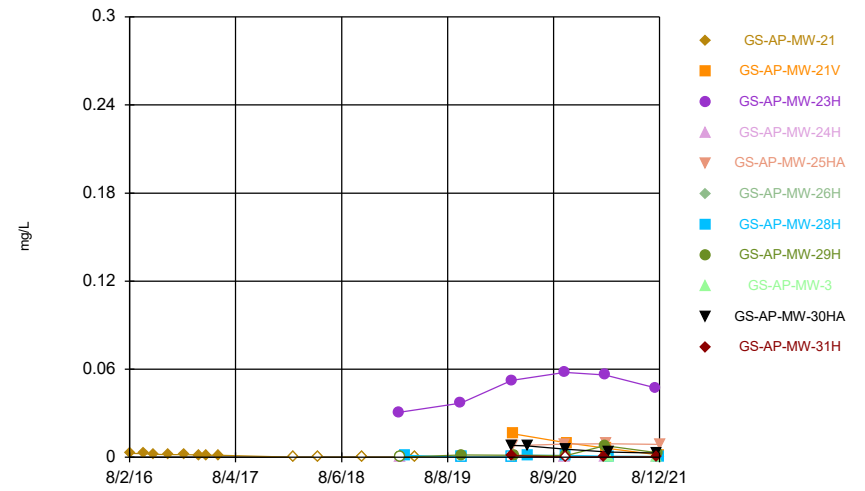


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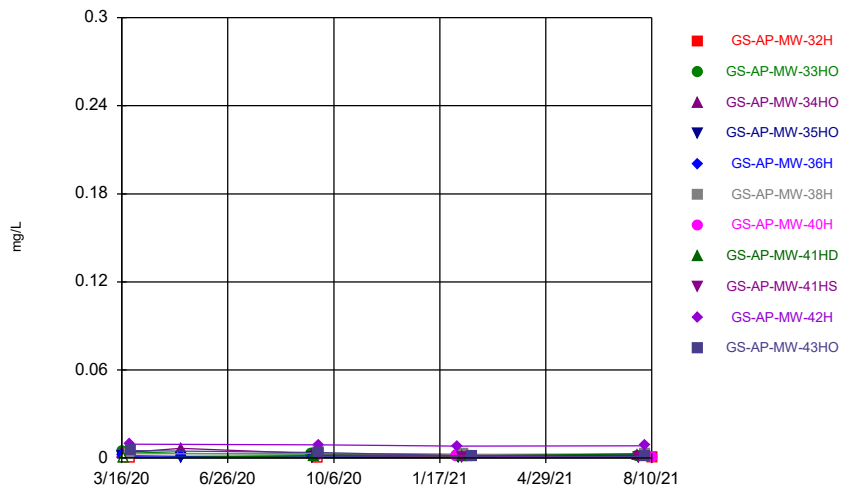
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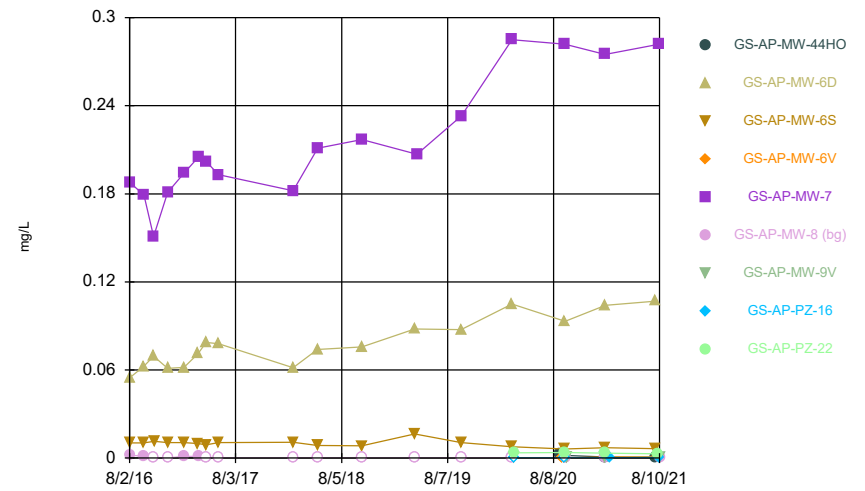
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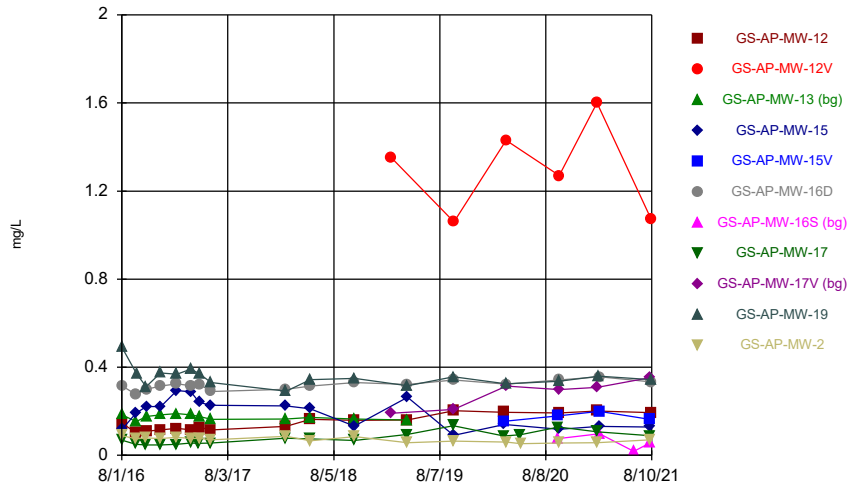
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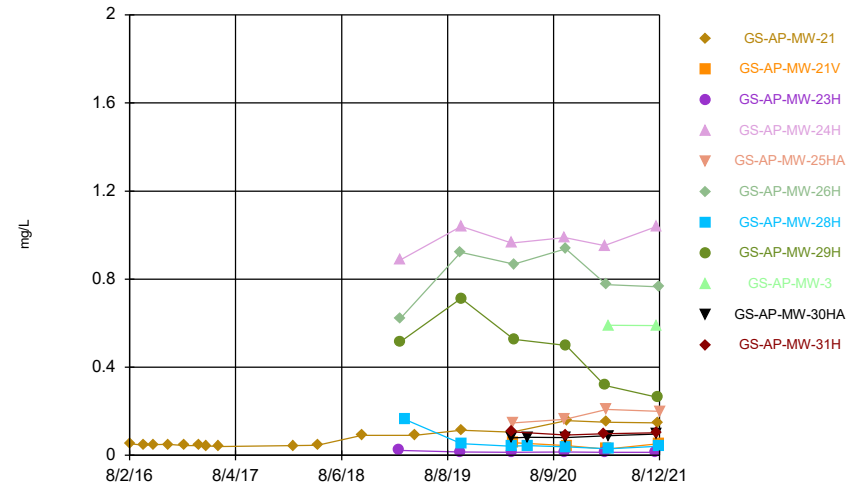
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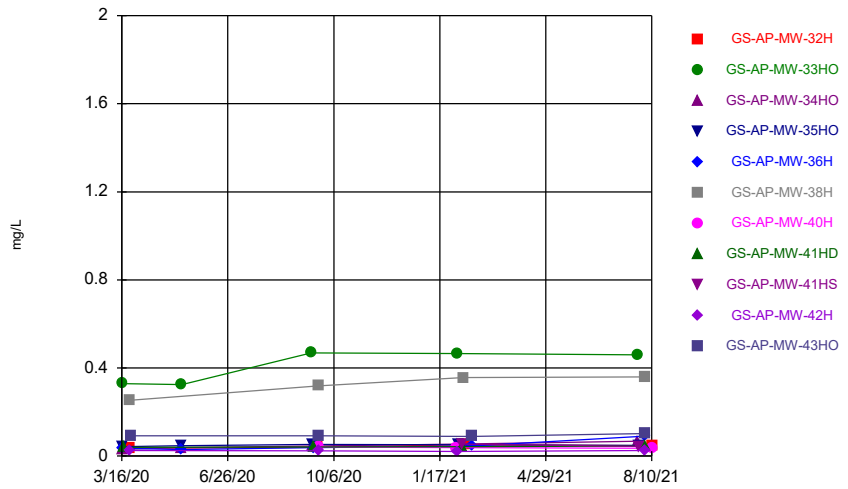
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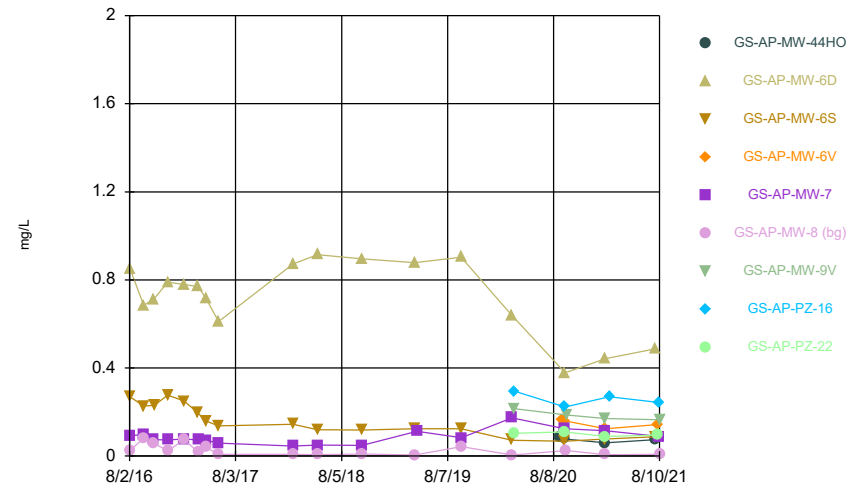
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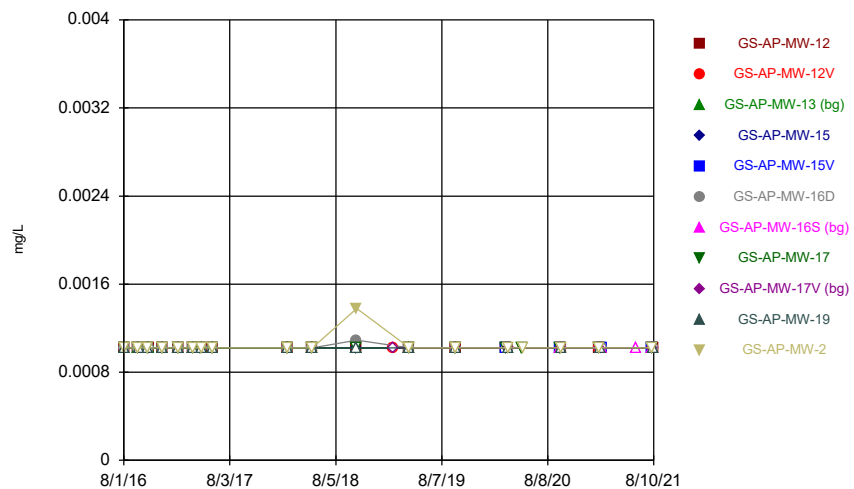
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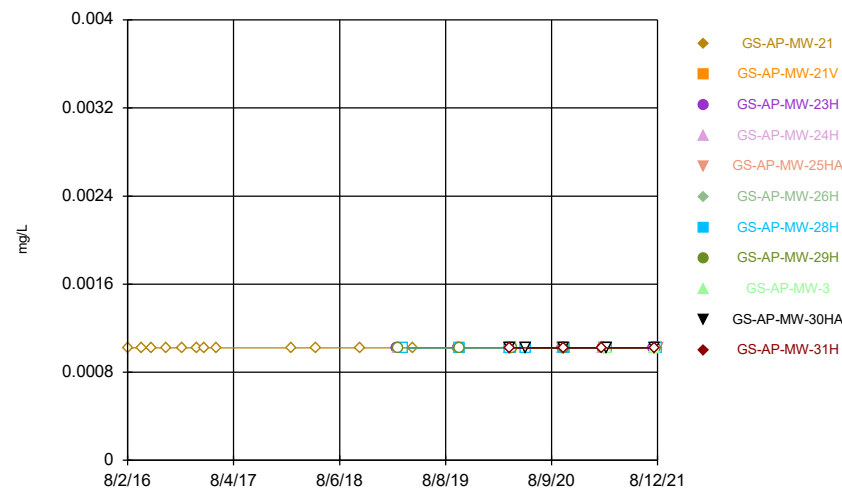
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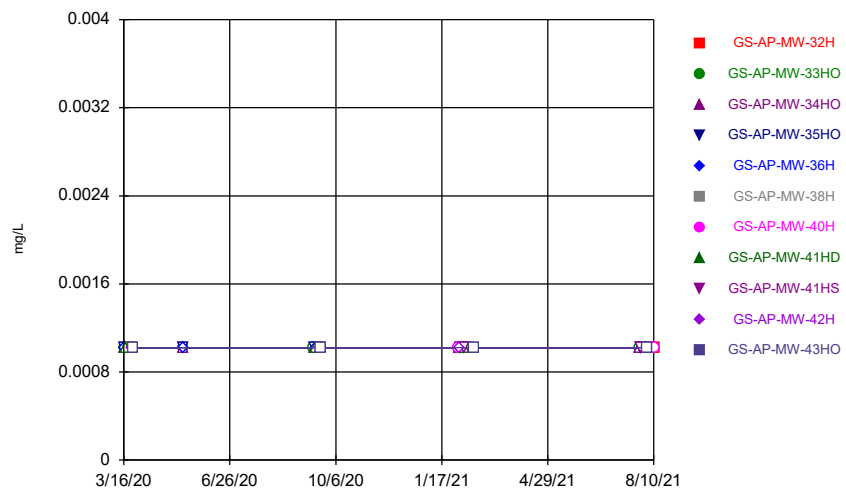
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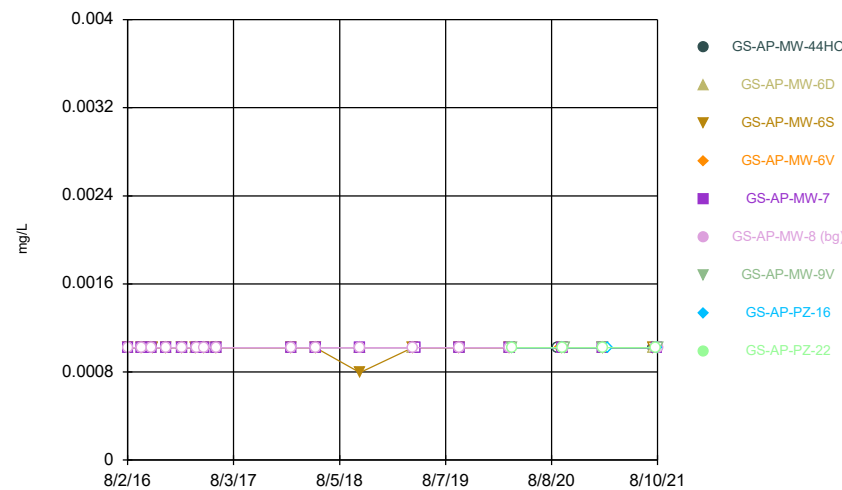
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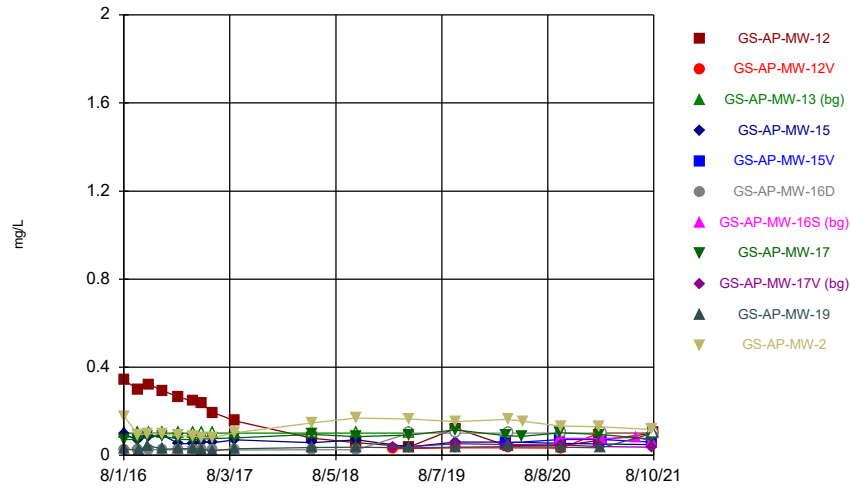
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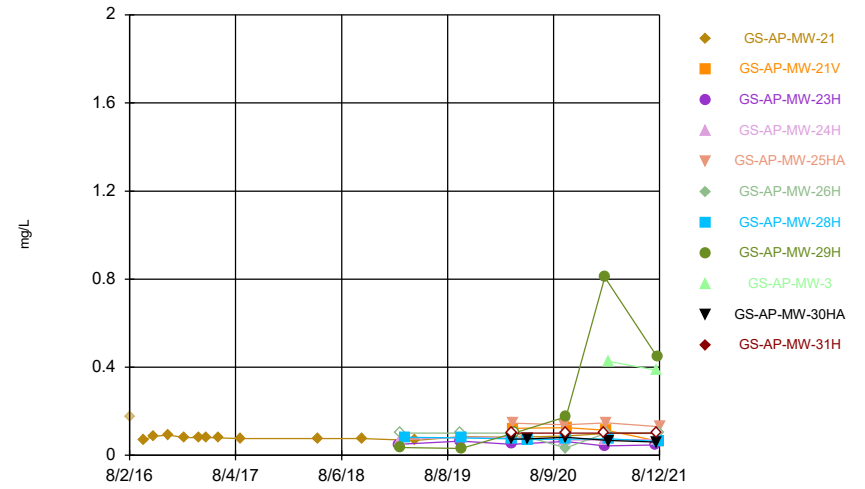
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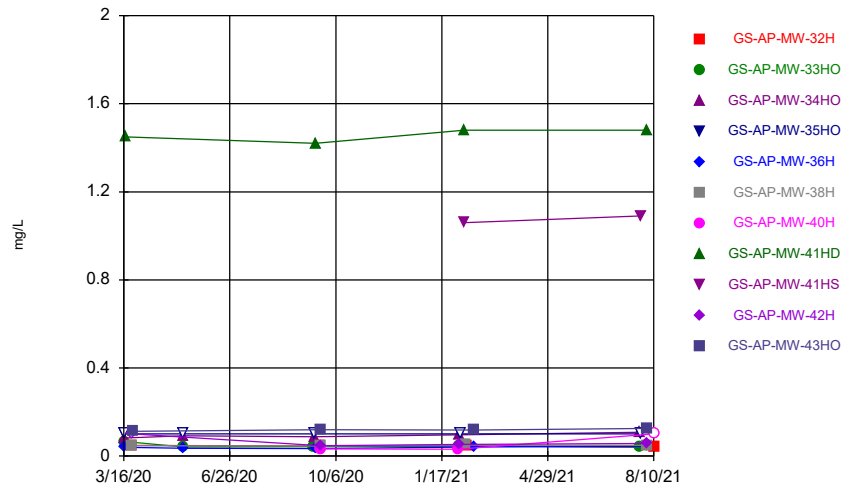
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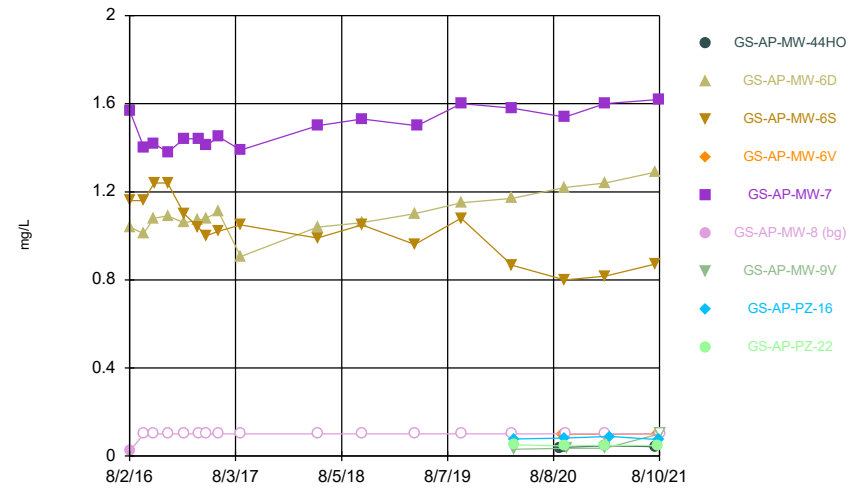
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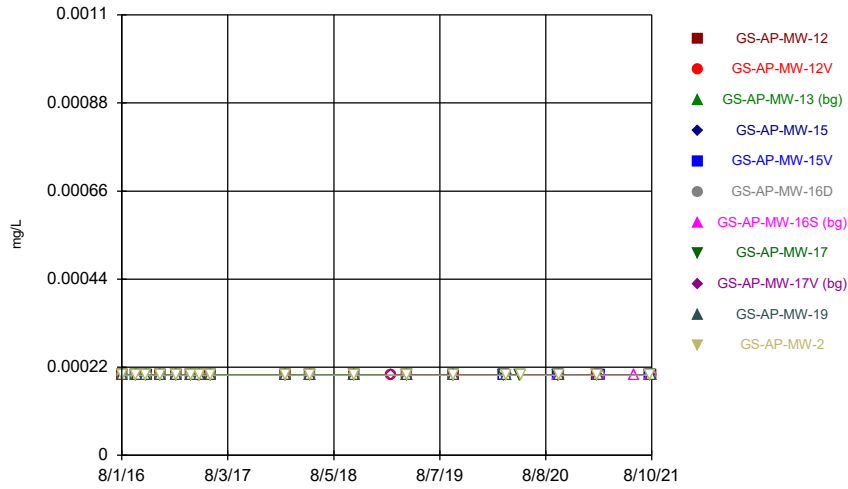
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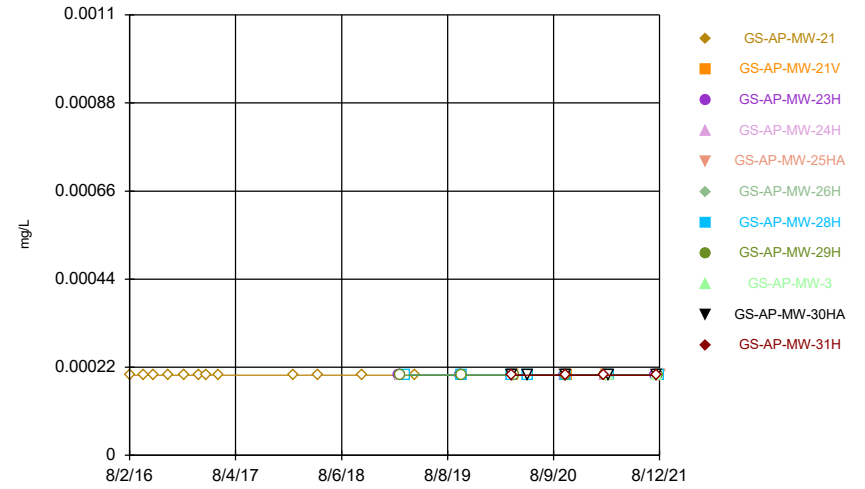
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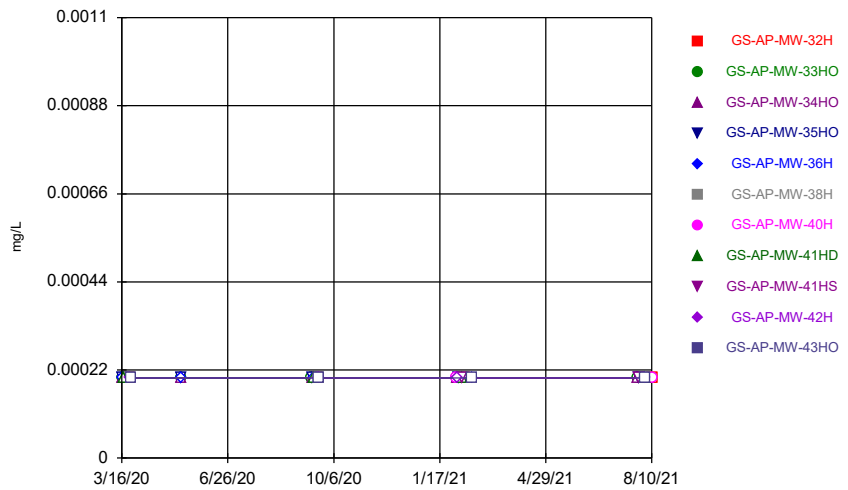
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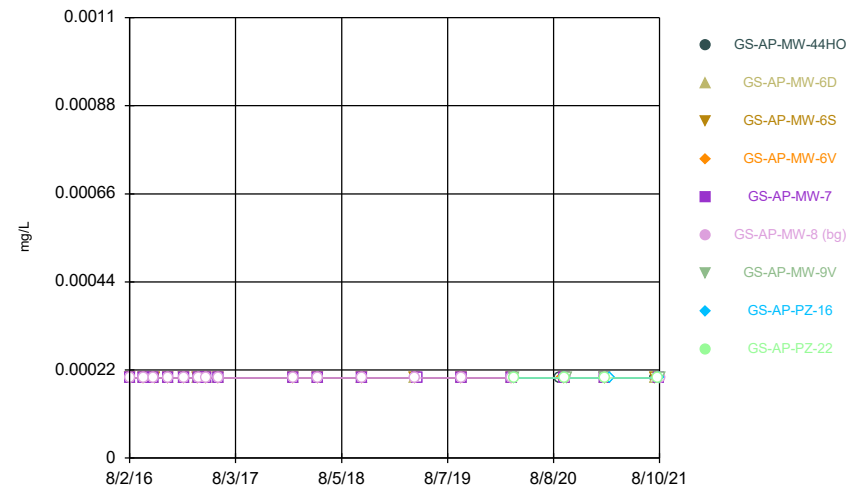
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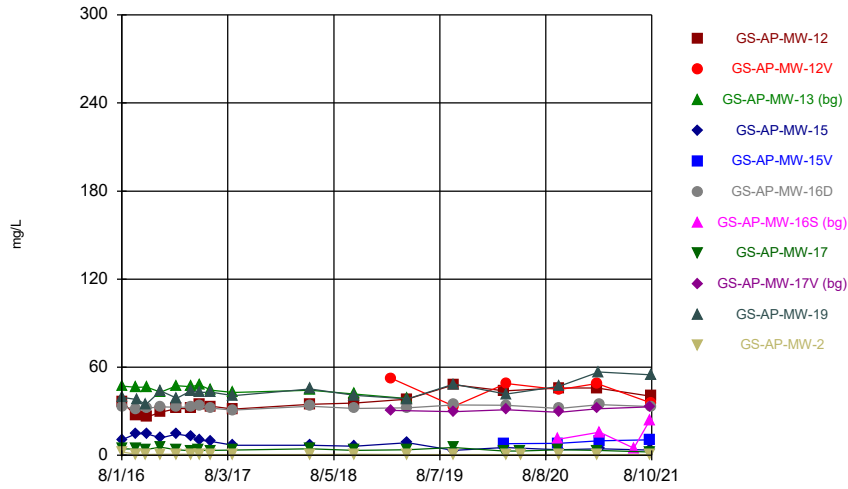
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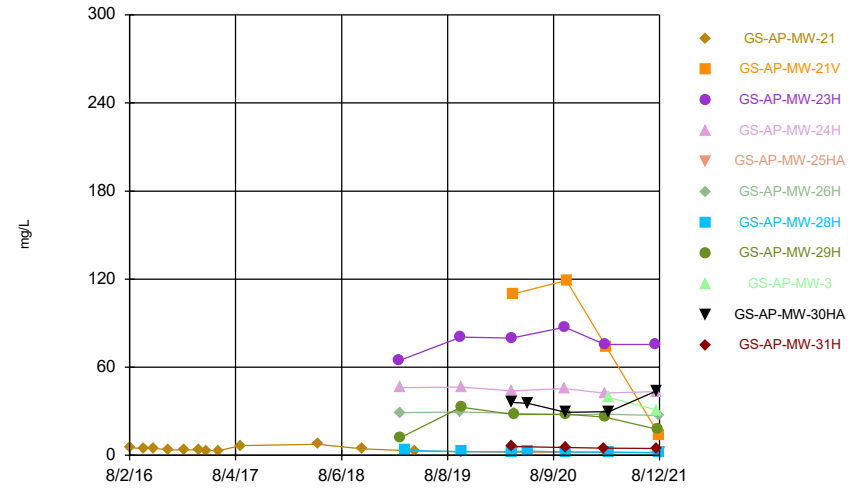
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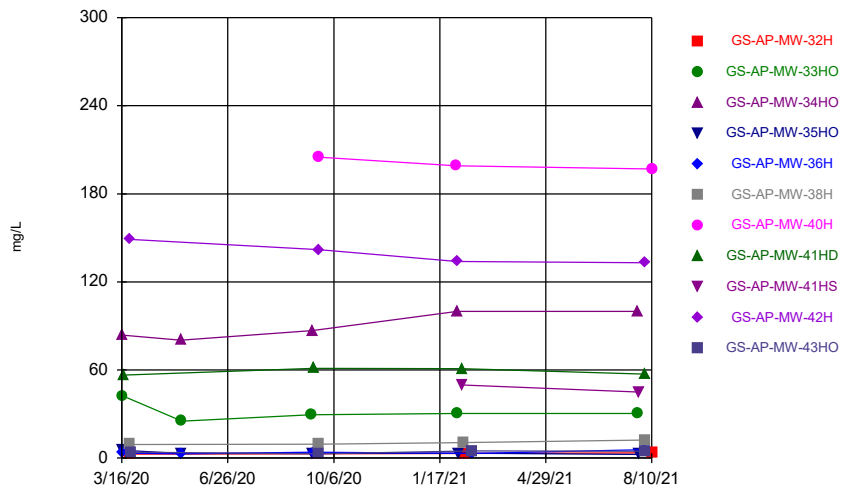
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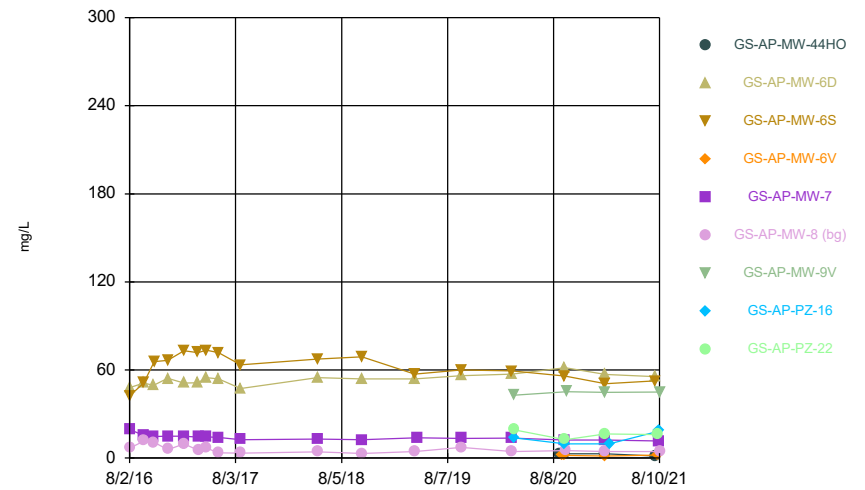
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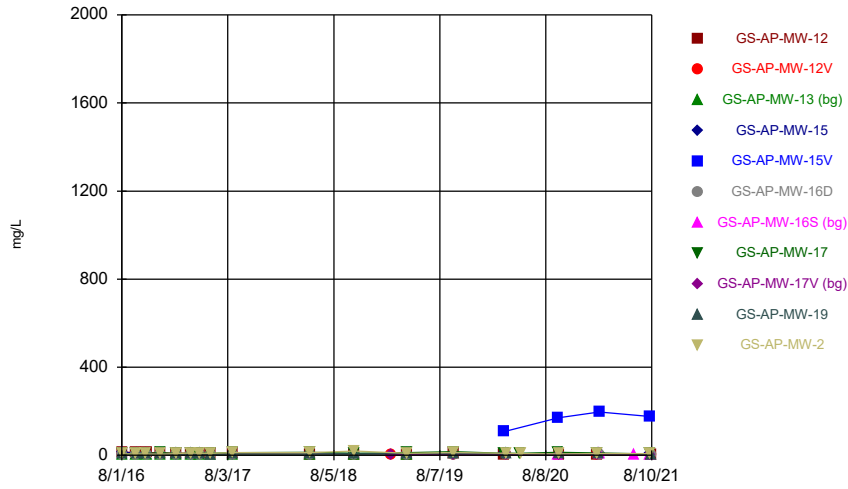
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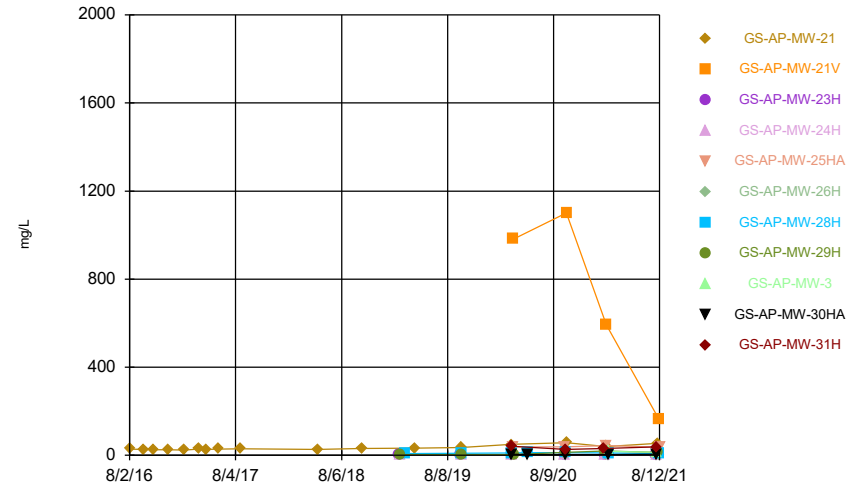
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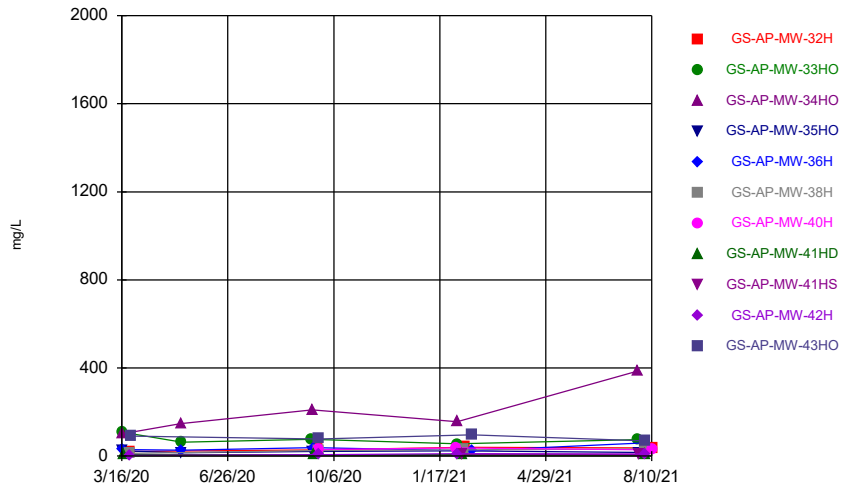
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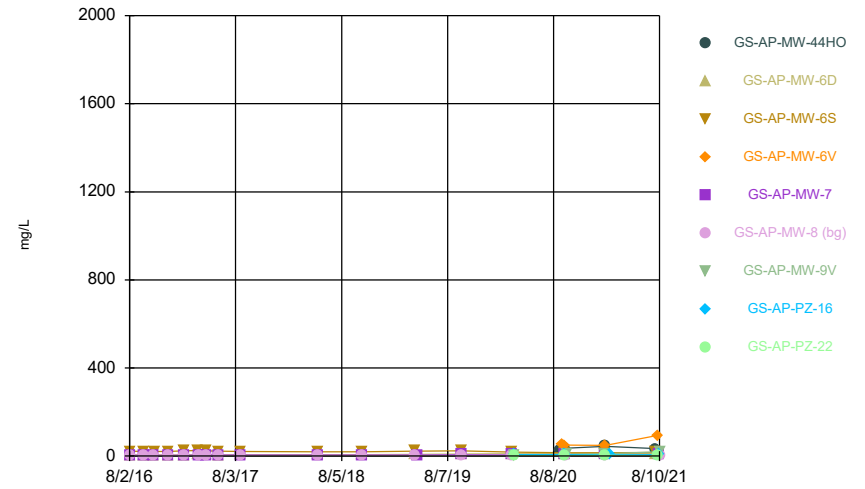
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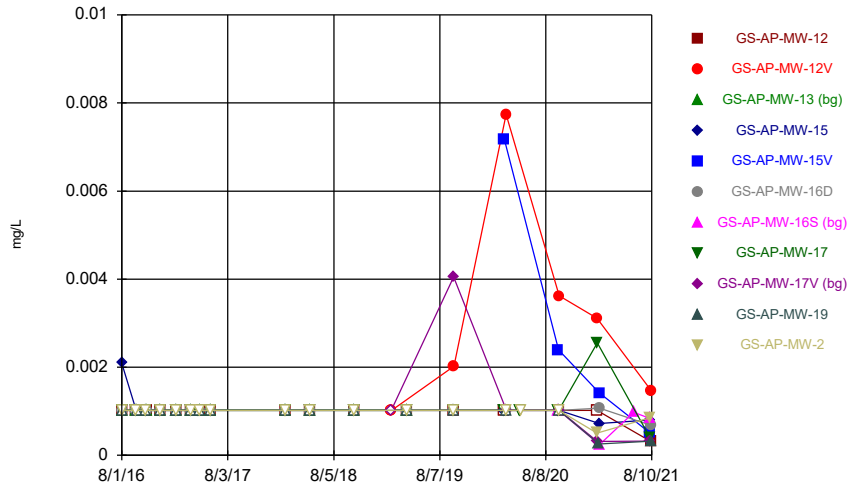
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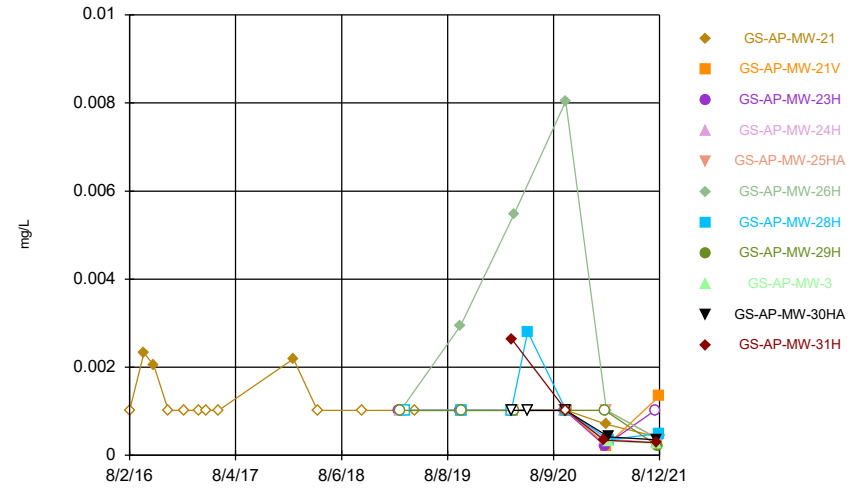
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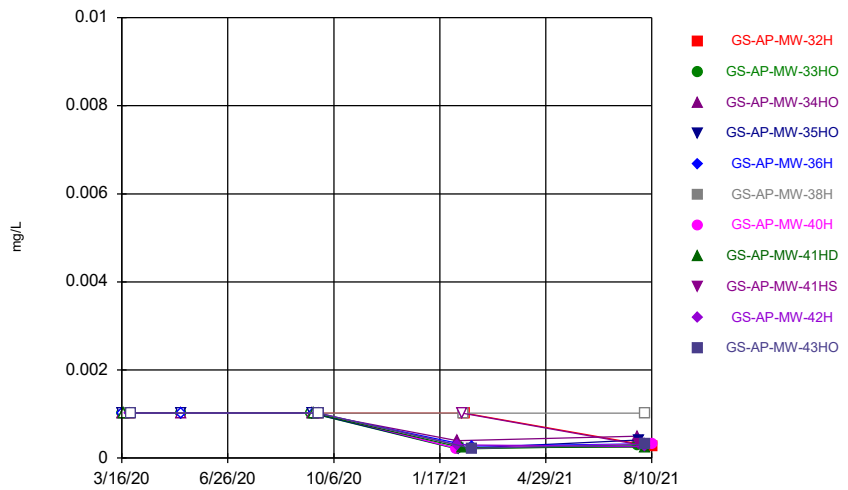
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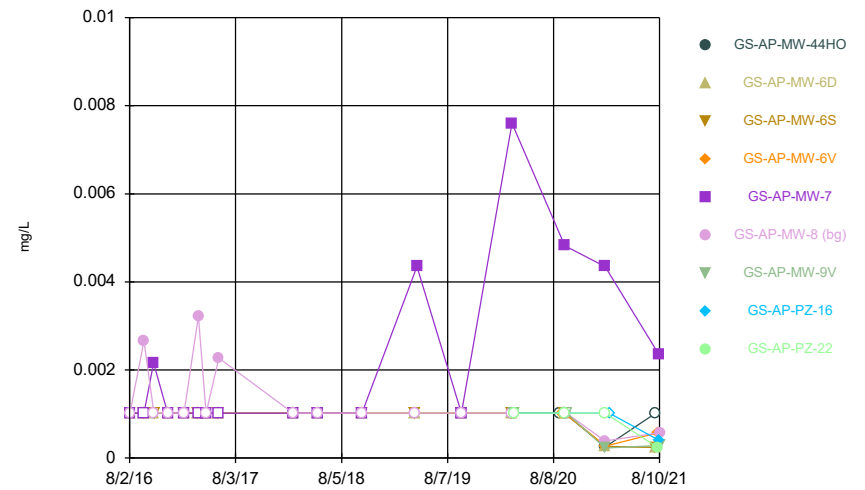
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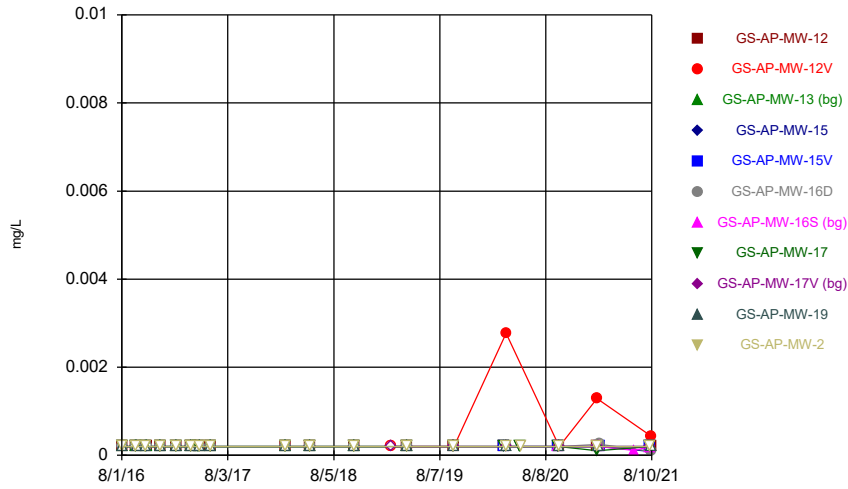
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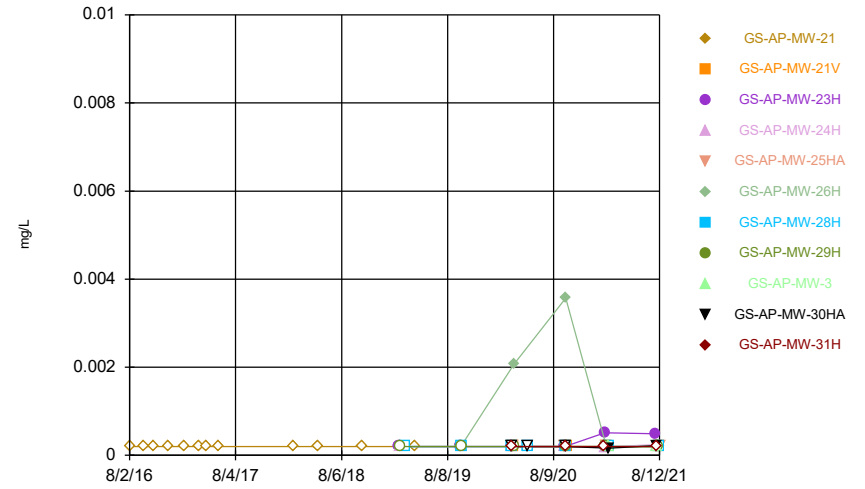
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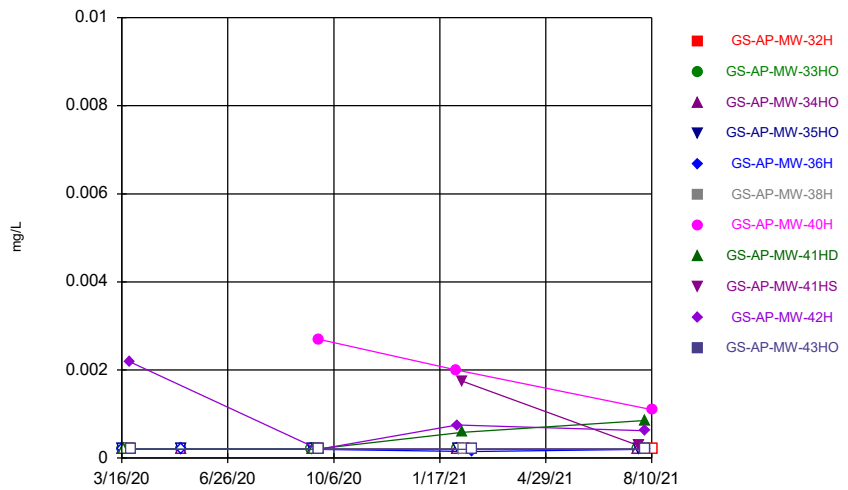
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



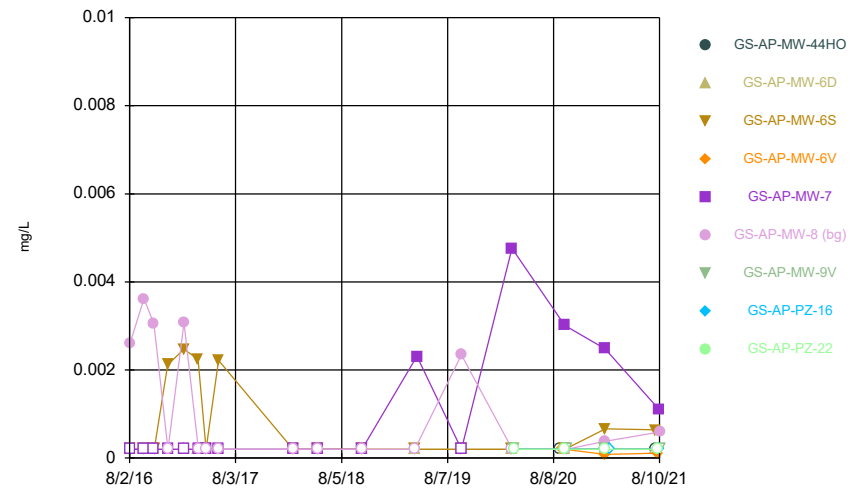
Constituent: Cobalt Analysis Run 1/3/2022 11:20 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



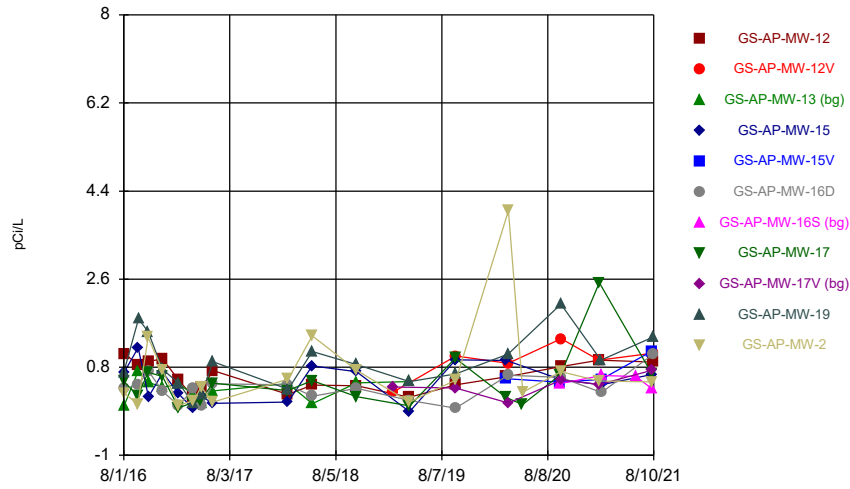
Constituent: Cobalt Analysis Run 1/3/2022 11:20 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



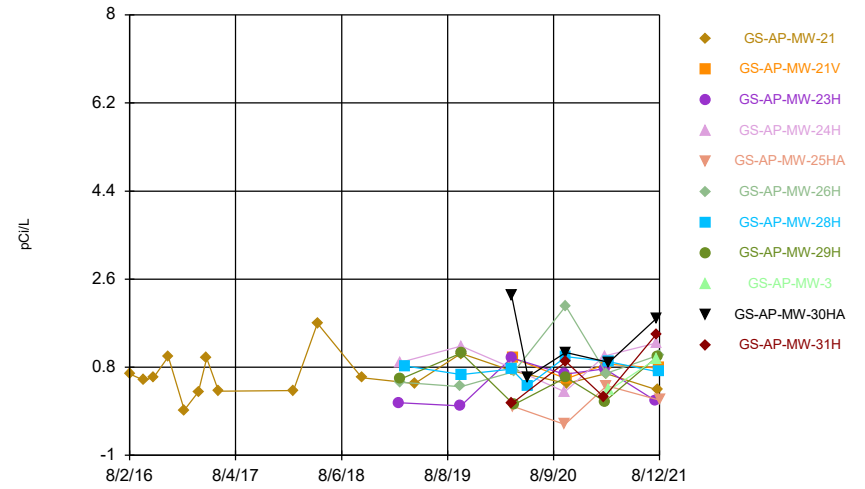
Constituent: Cobalt Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



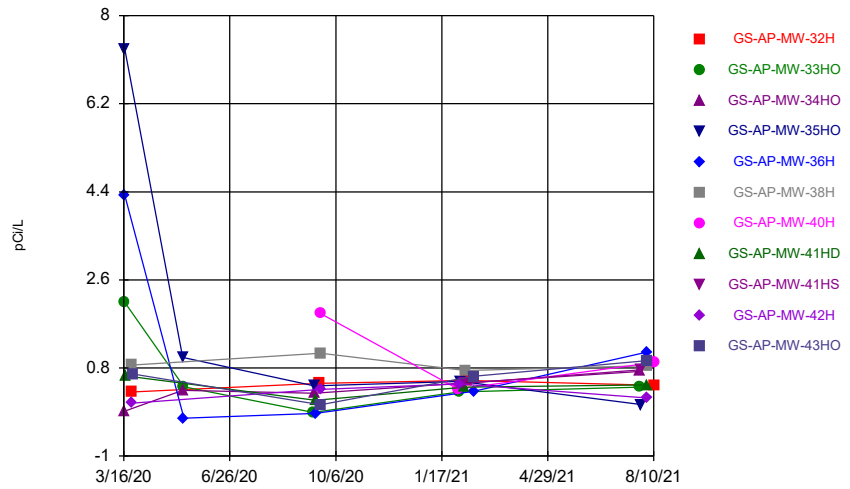
Constituent: Combined Radium 226 + 228 Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



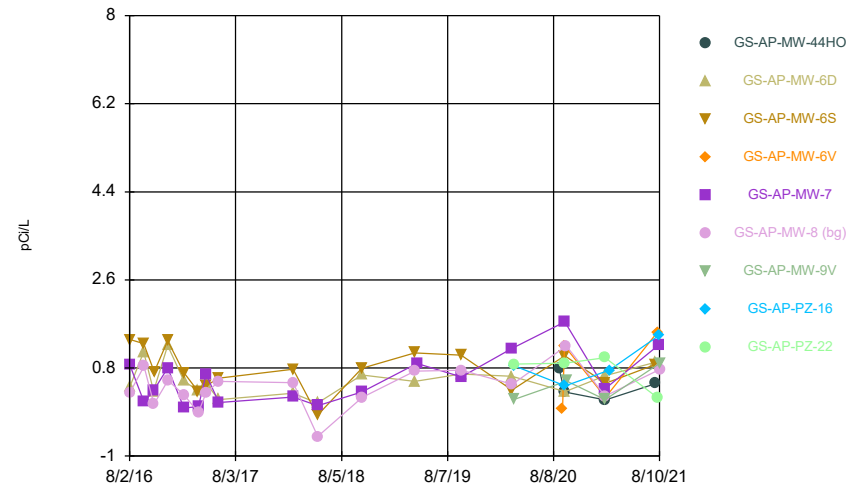
Constituent: Combined Radium 226 + 228 Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



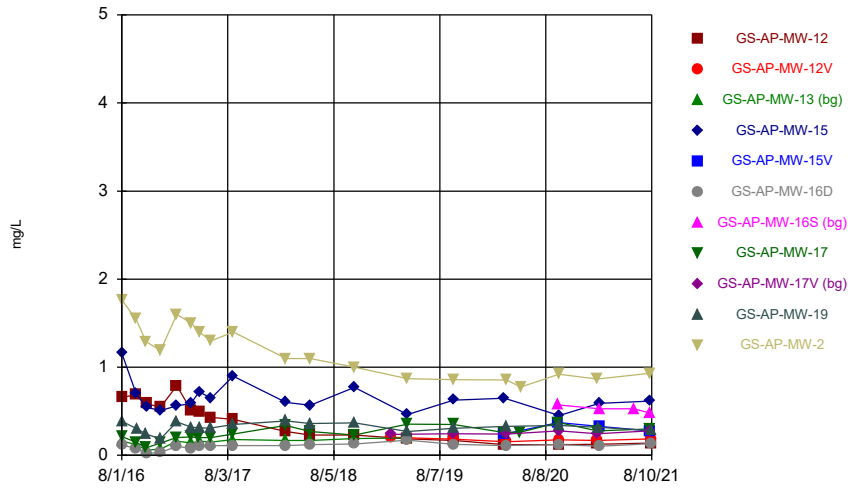
Constituent: Combined Radium 226 + 228 Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



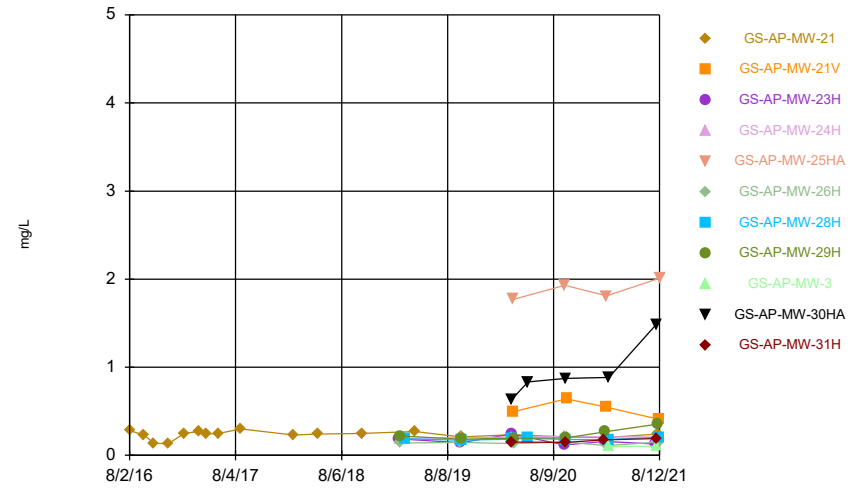
Constituent: Combined Radium 226 + 228 Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



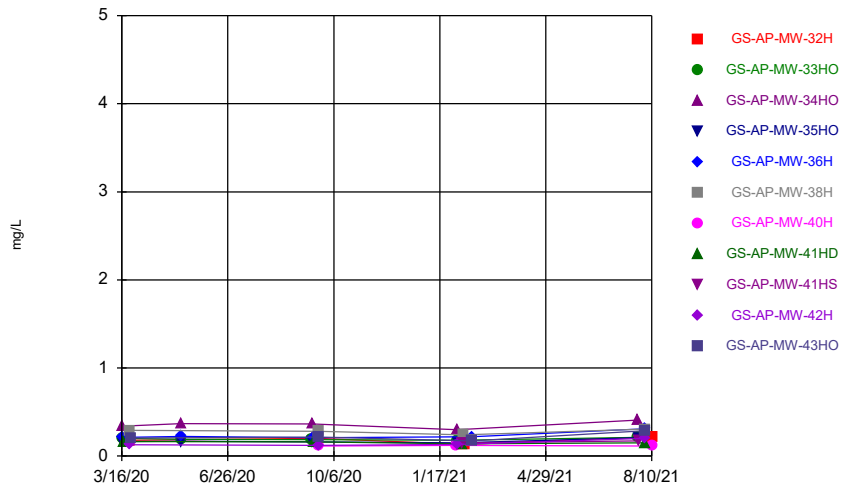
Constituent: Fluoride Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



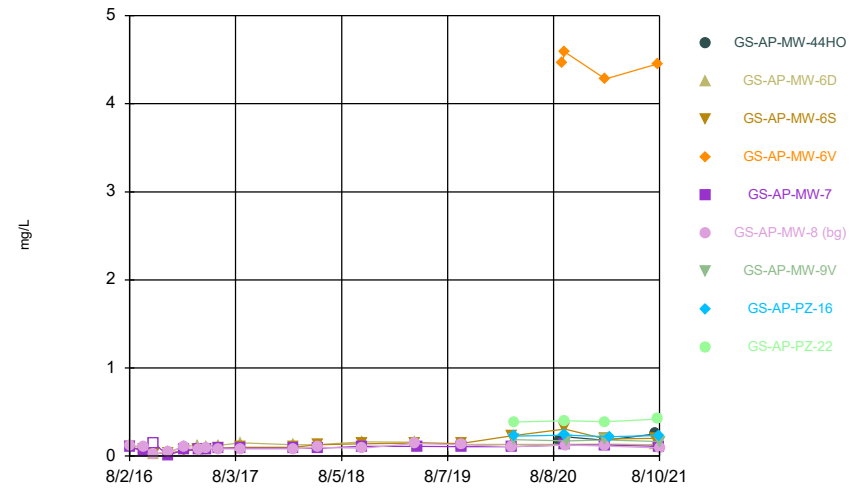
Constituent: Fluoride Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



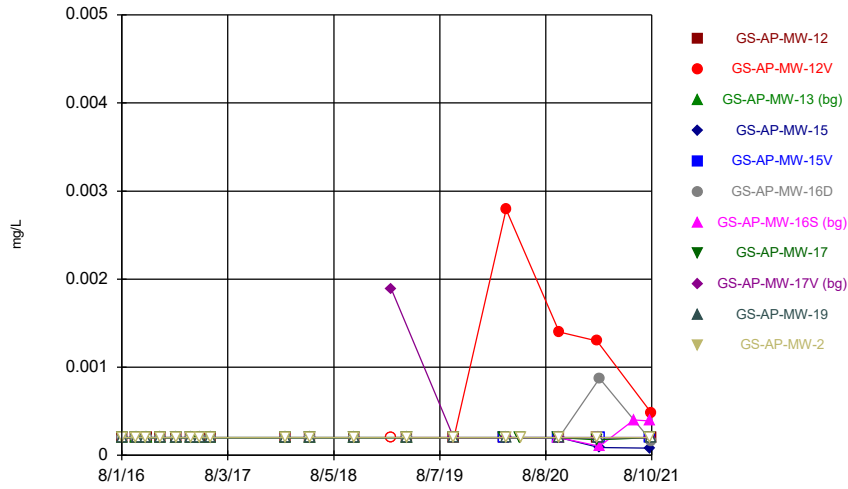
Constituent: Fluoride Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



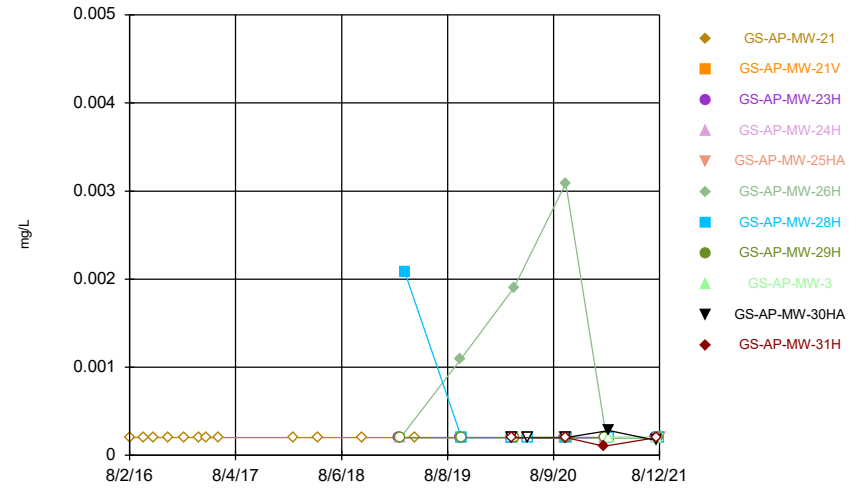
Constituent: Fluoride Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



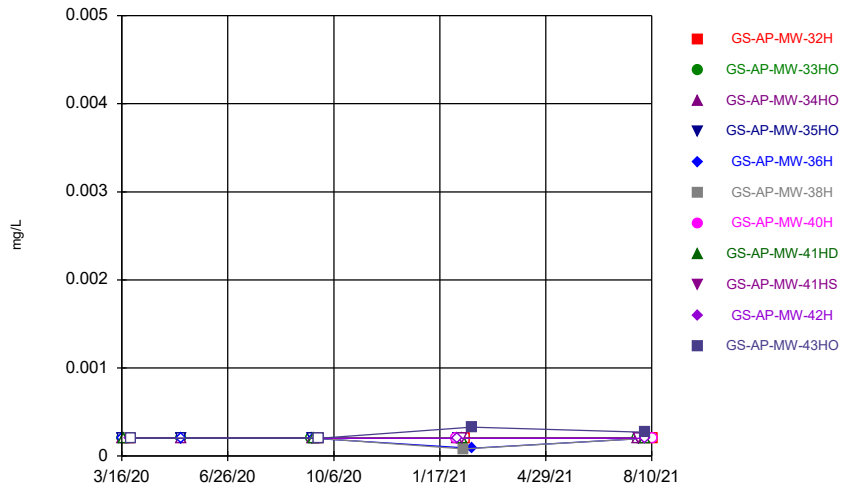
Constituent: Lead Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



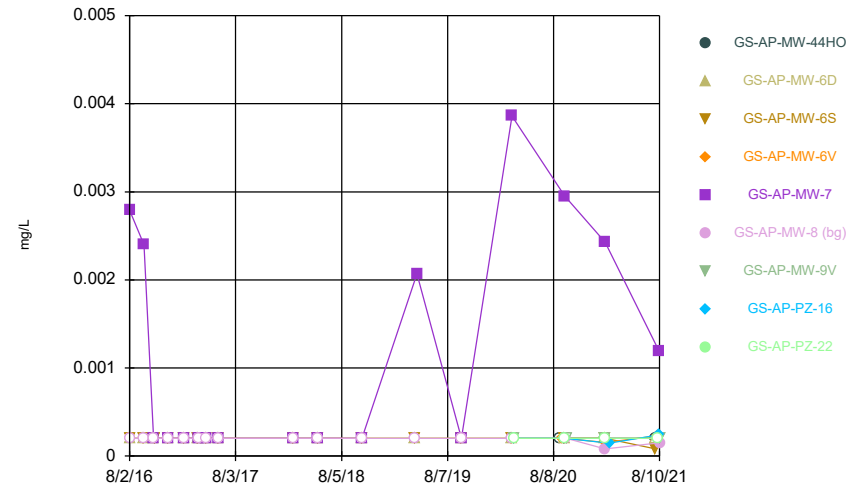
Constituent: Lead Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



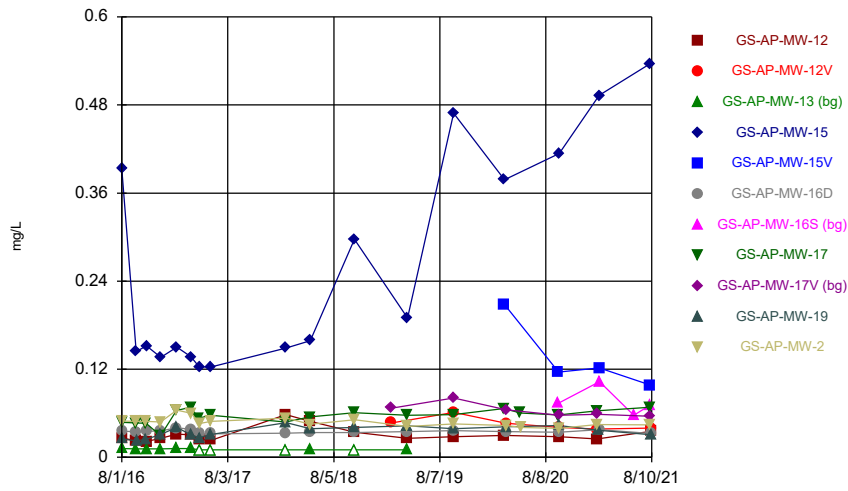
Constituent: Lead Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



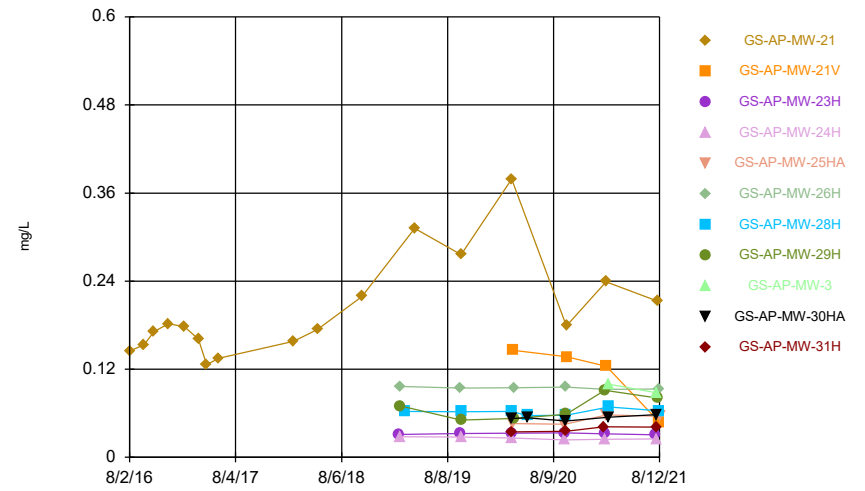
Constituent: Lead Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



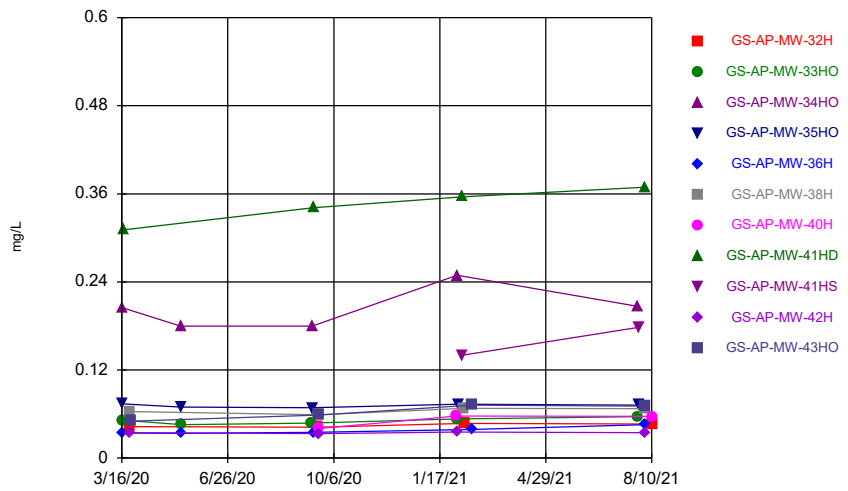
Constituent: Lithium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



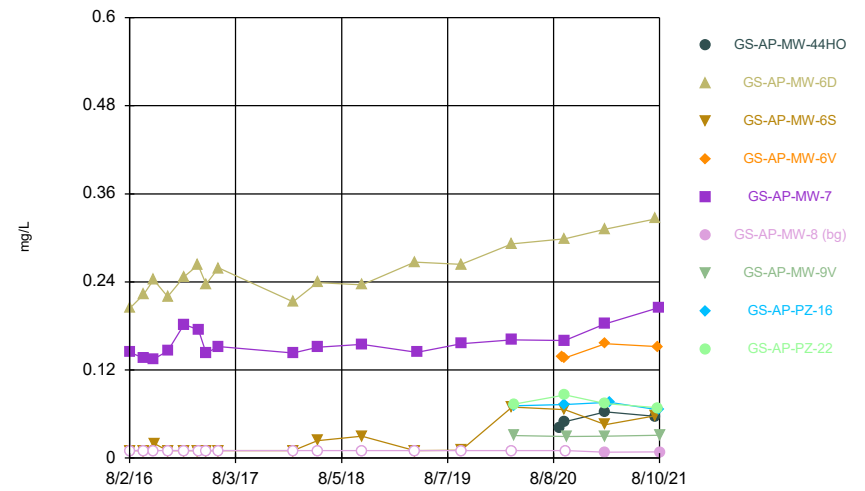
Constituent: Lithium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



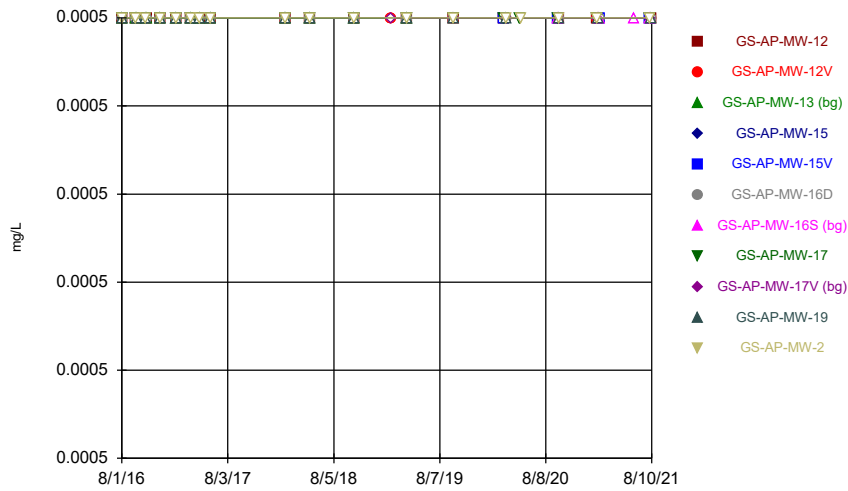
Constituent: Lithium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



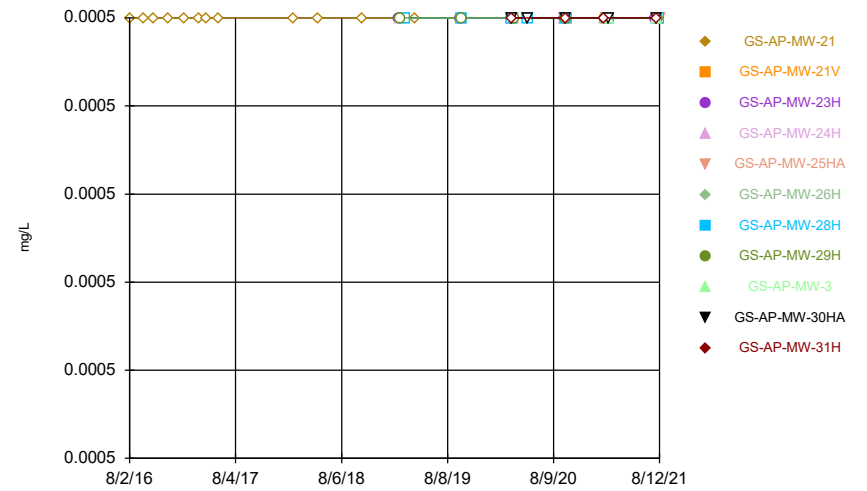
Constituent: Lithium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



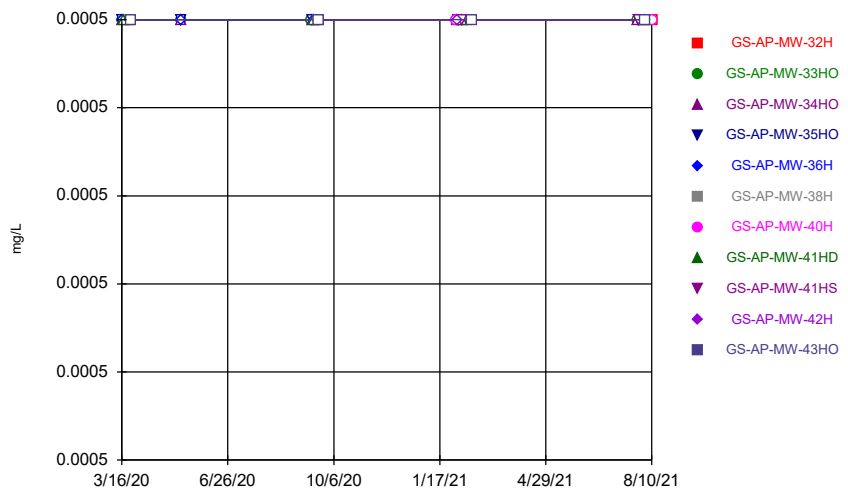
Constituent: Mercury Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



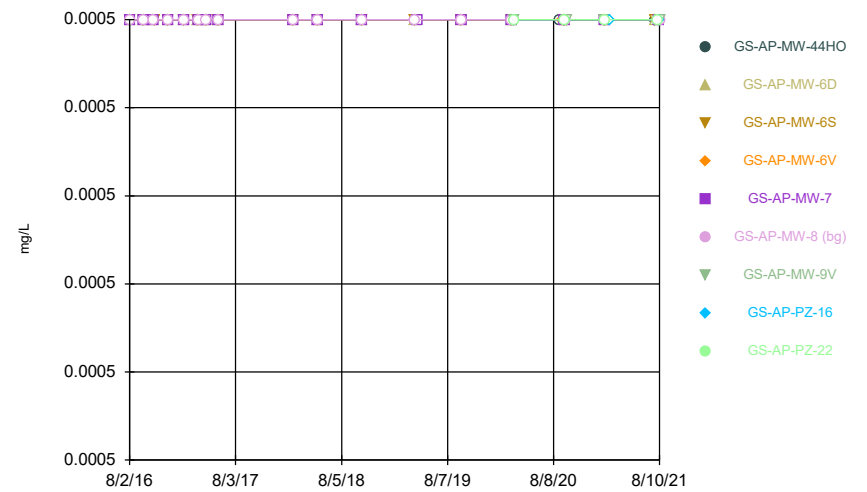
Constituent: Mercury Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



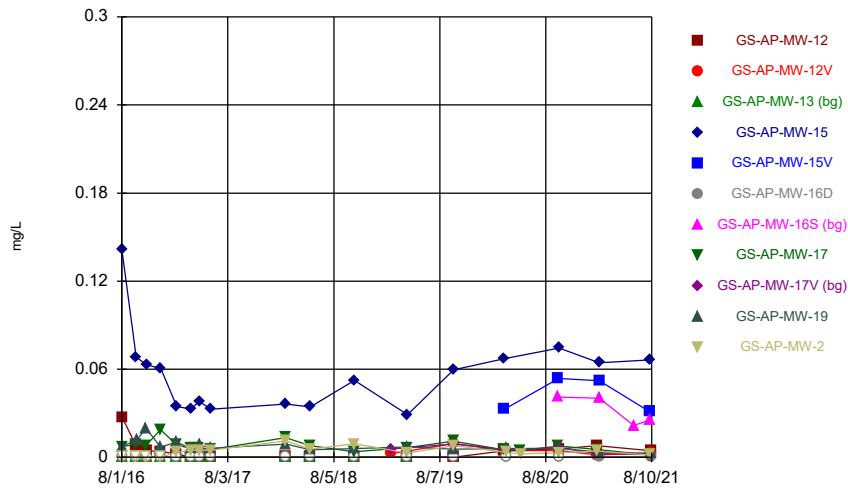
Constituent: Mercury Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series

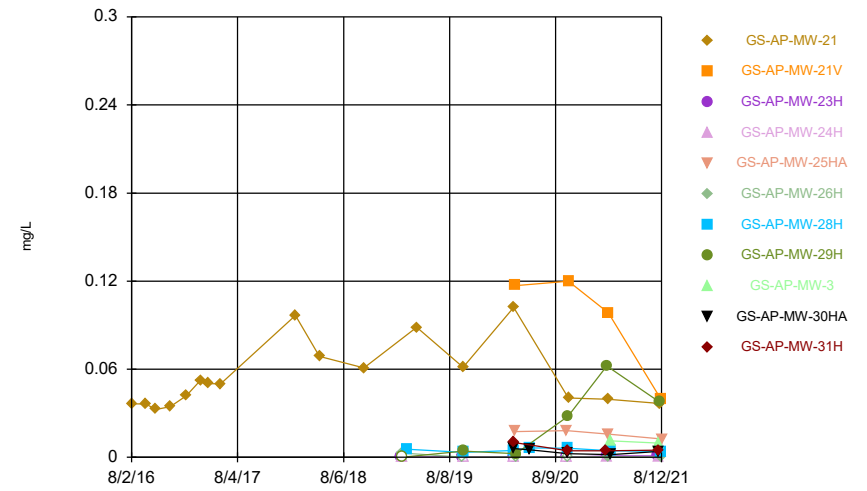


Constituent: Mercury Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

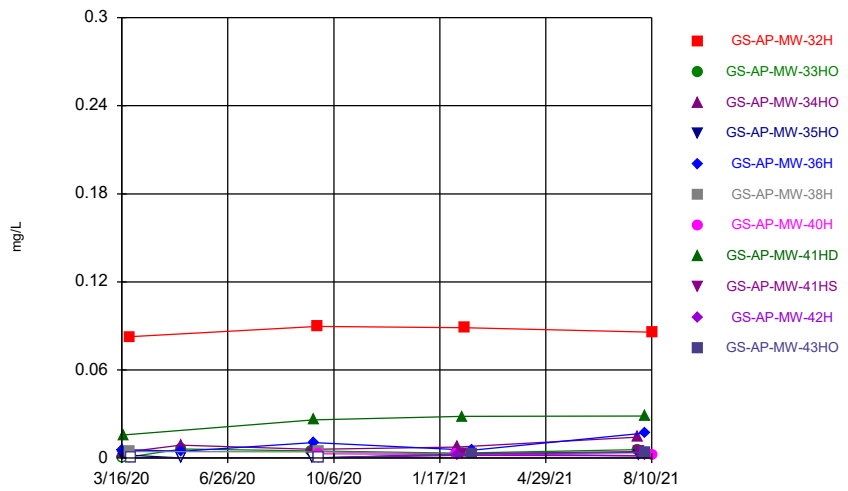
Time Series



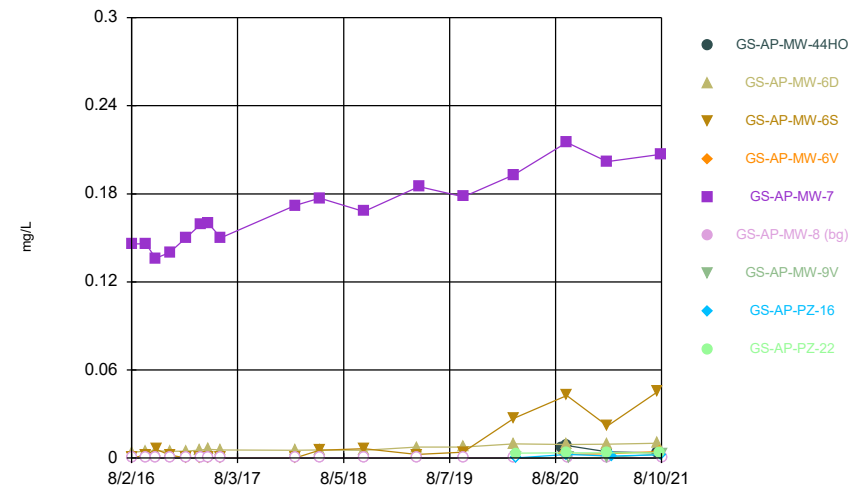
Time Series



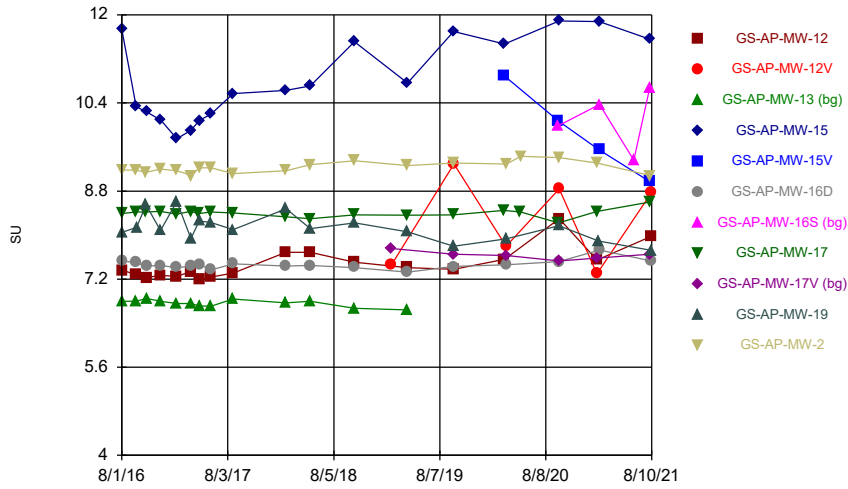
Time Series



Time Series

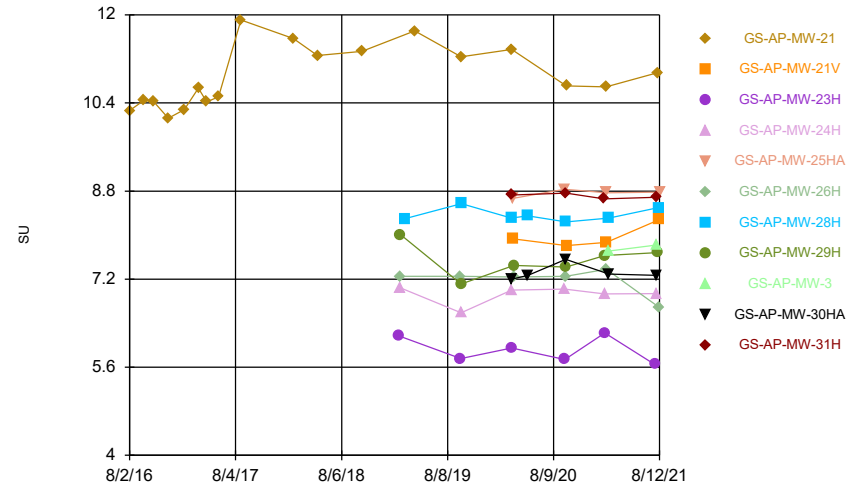


Time Series



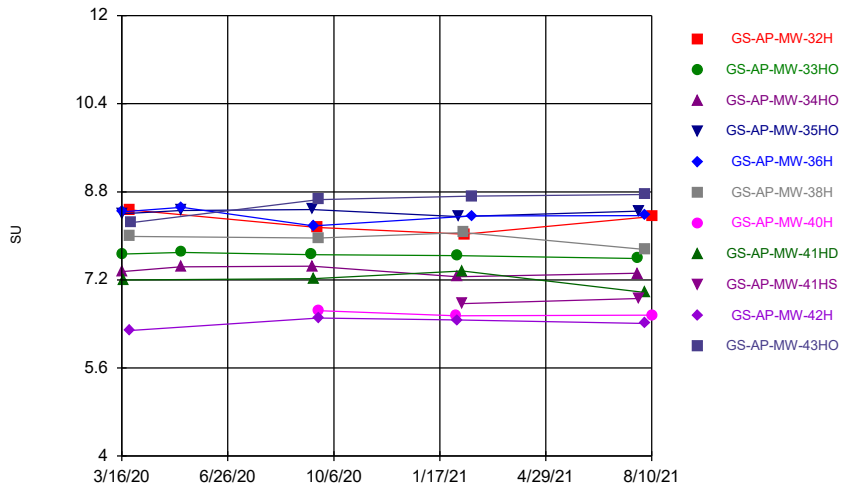
Constituent: pH Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



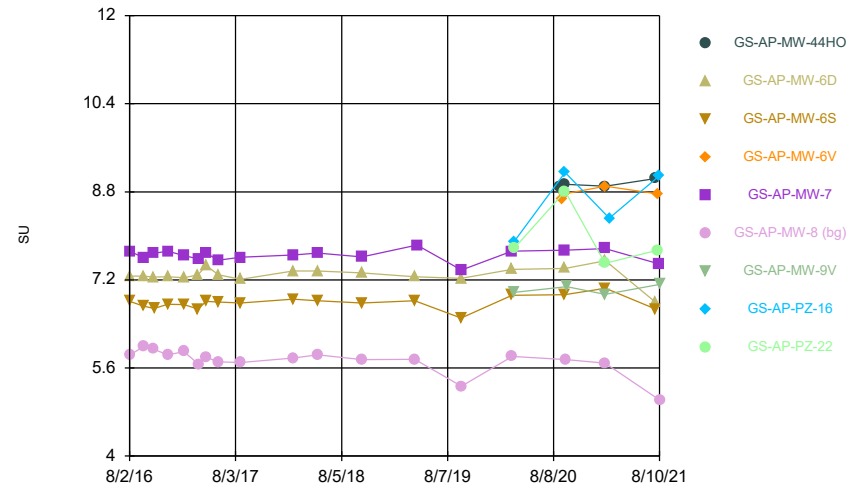
Constituent: pH Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



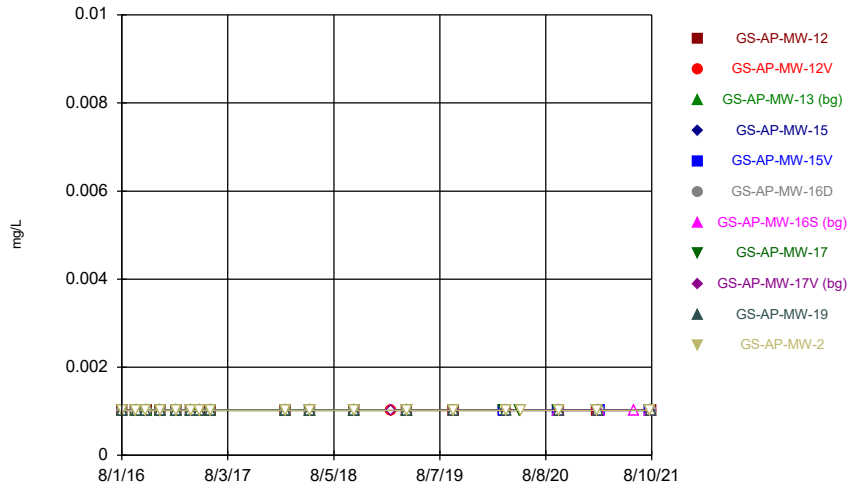
Constituent: pH Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



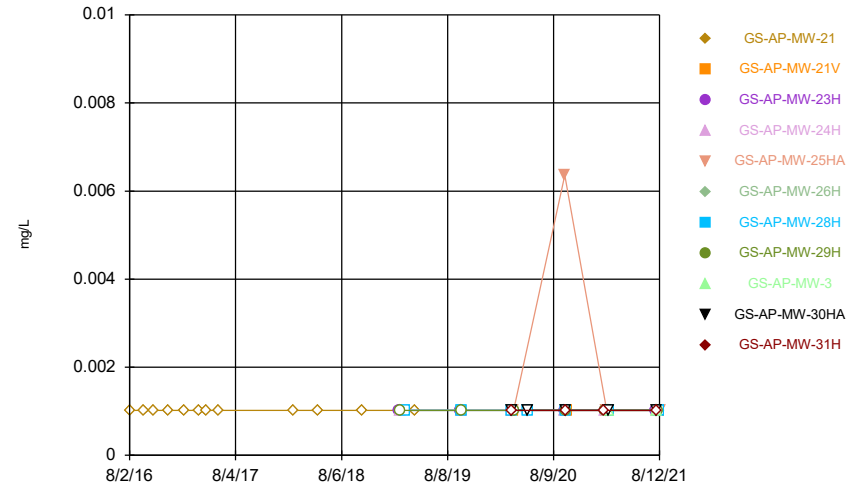
Constituent: pH Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



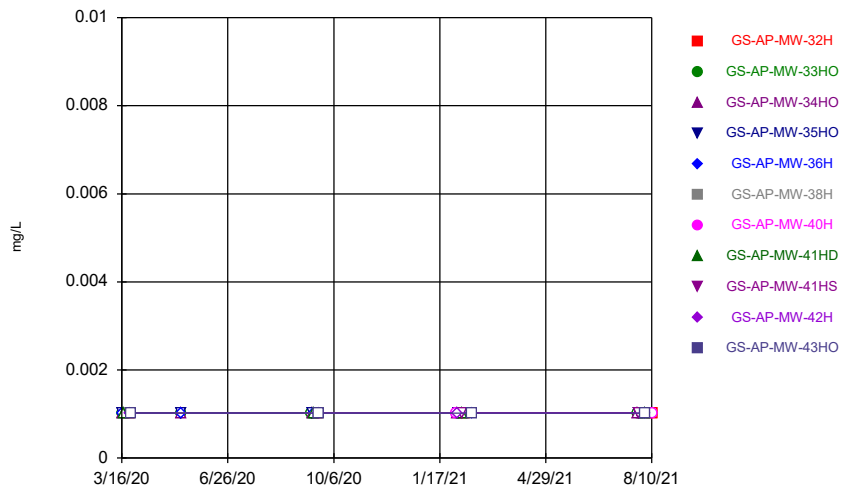
Constituent: Selenium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



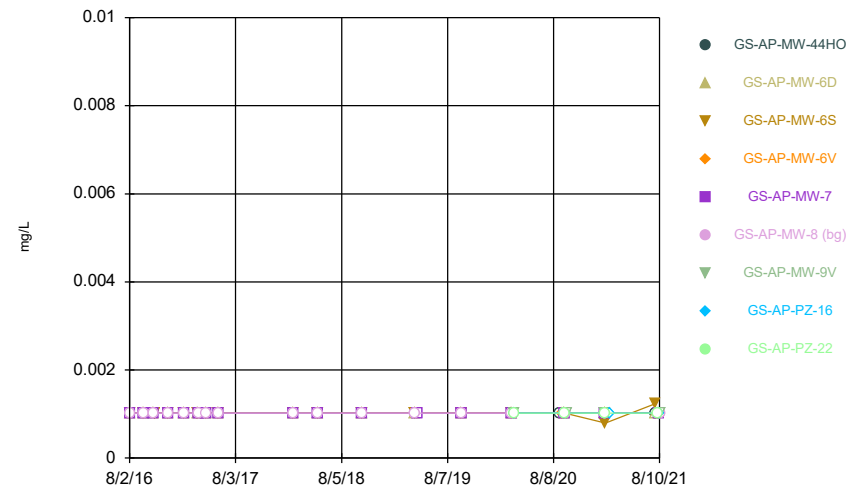
Constituent: Selenium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



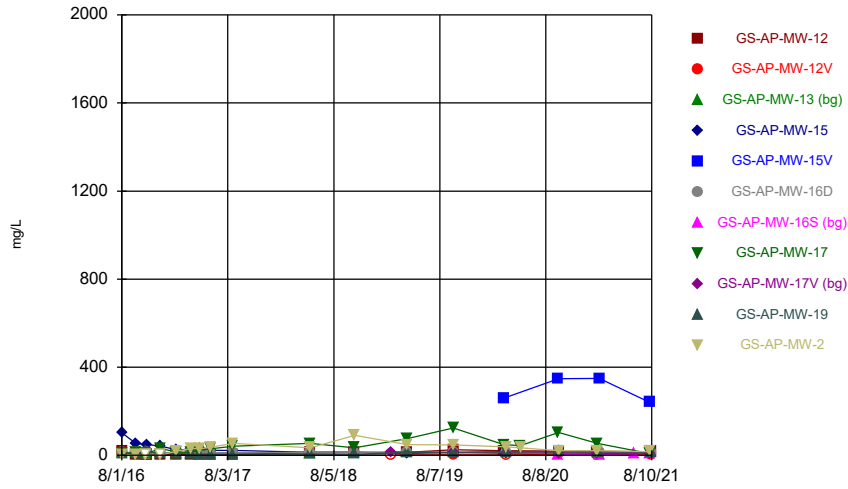
Constituent: Selenium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



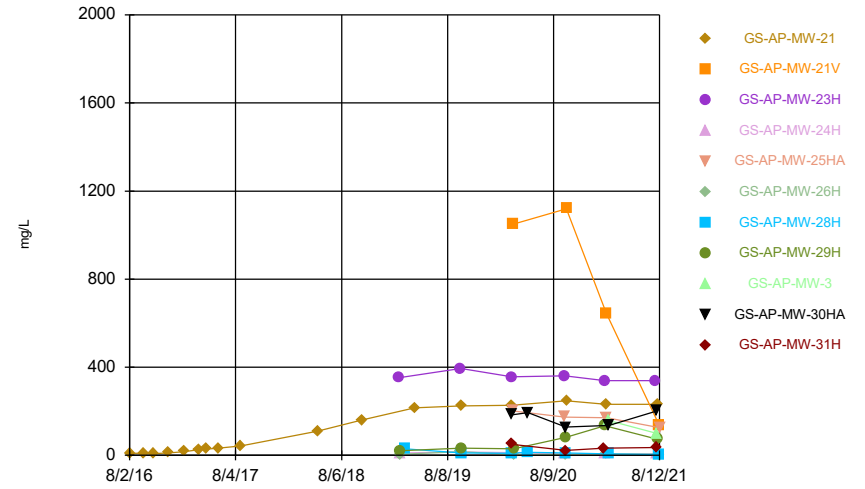
Constituent: Selenium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



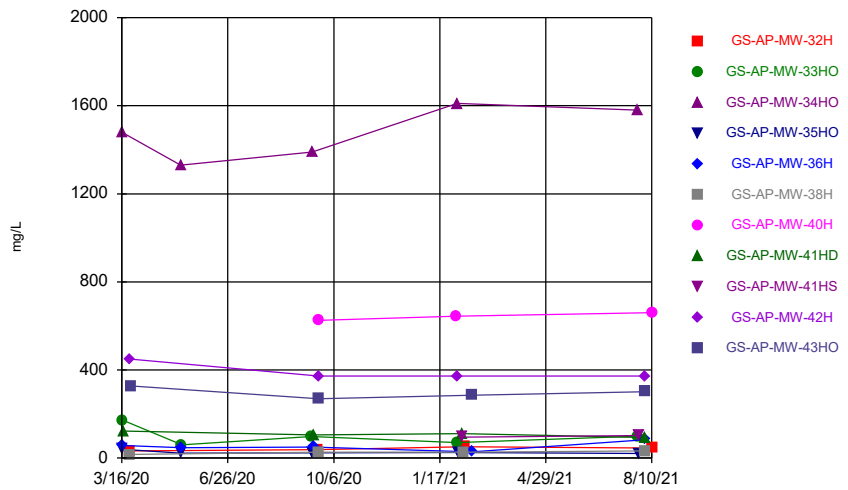
Constituent: Sulfate Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



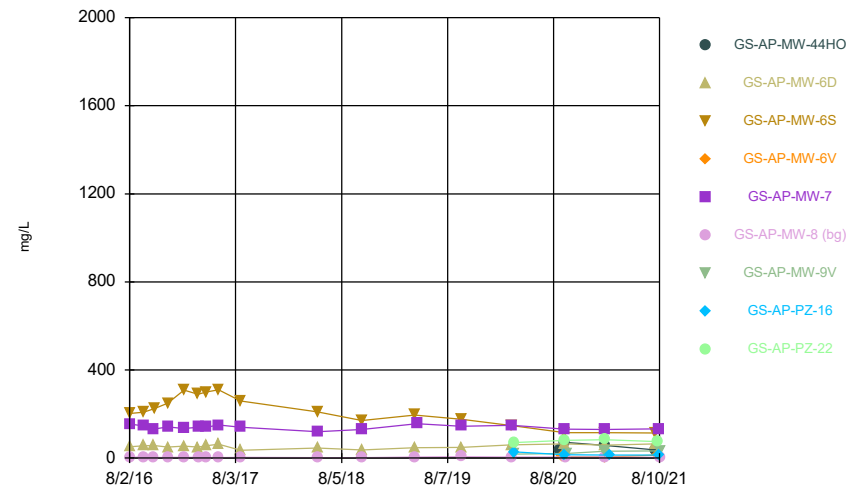
Constituent: Sulfate Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



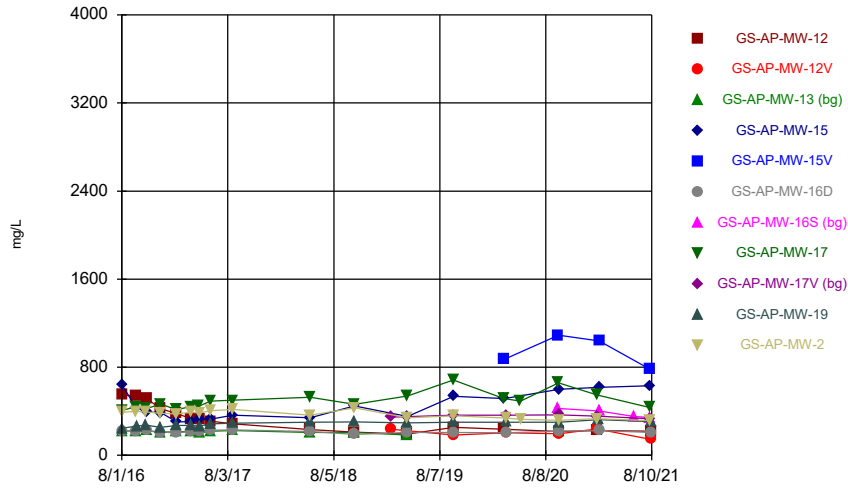
Constituent: Sulfate Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



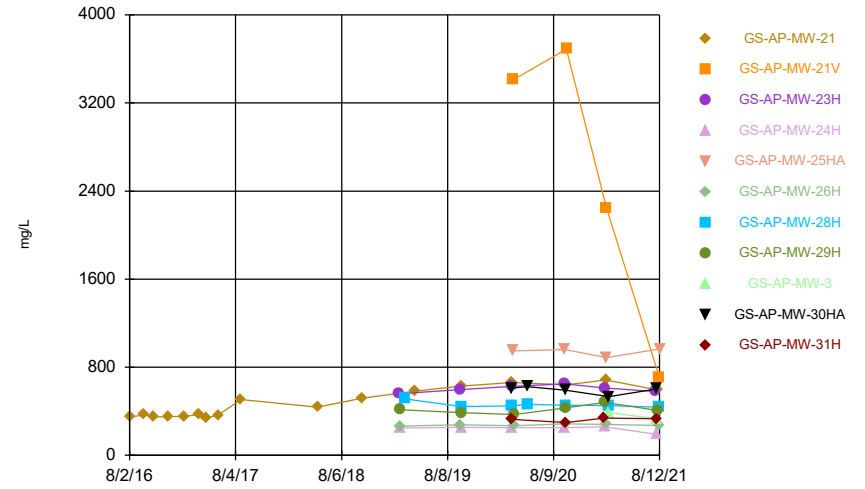
Constituent: Sulfate Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



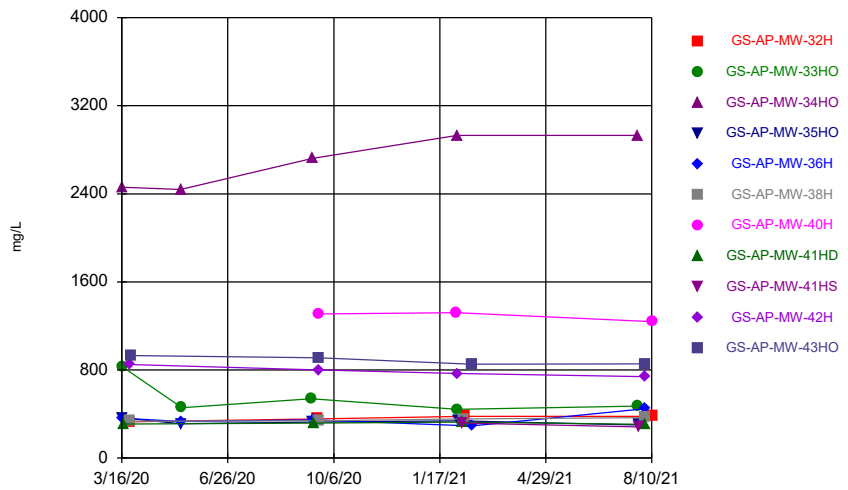
Constituent: TDS Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



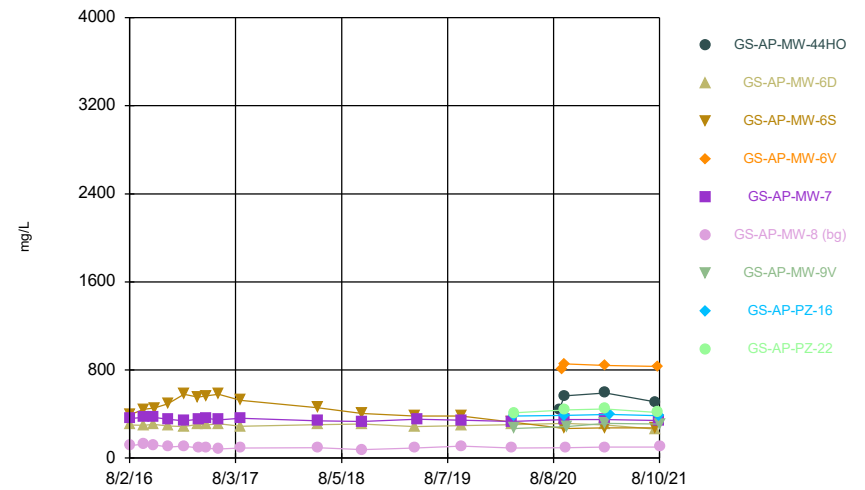
Constituent: TDS Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



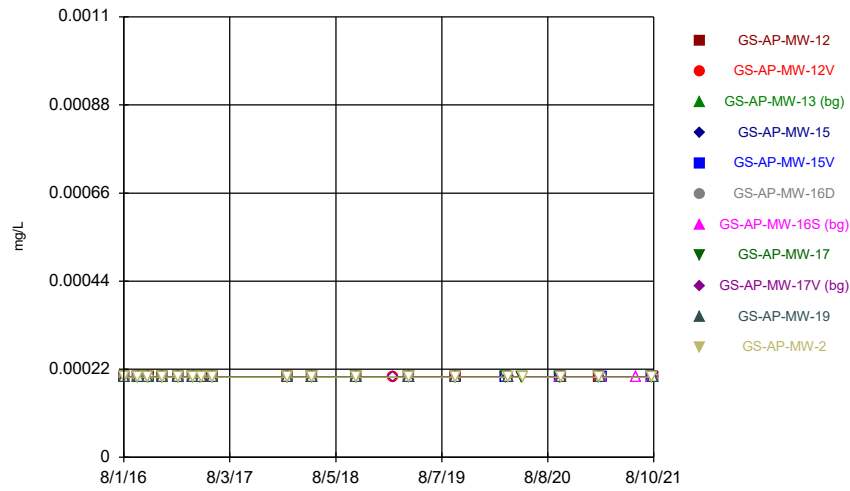
Constituent: TDS Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



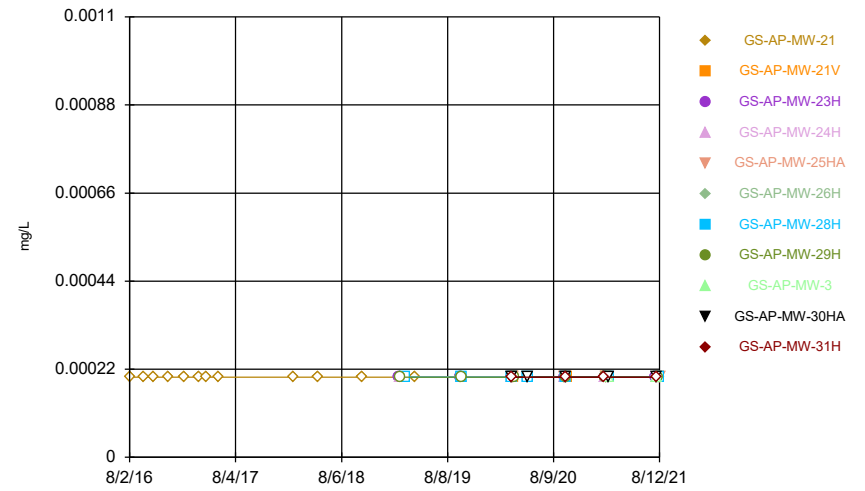
Constituent: TDS Analysis Run 1/3/2022 11:21 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



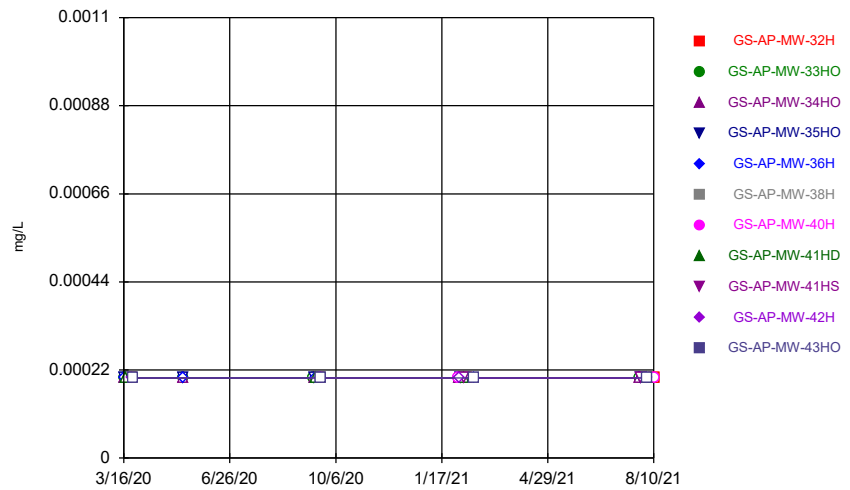
Constituent: Thallium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



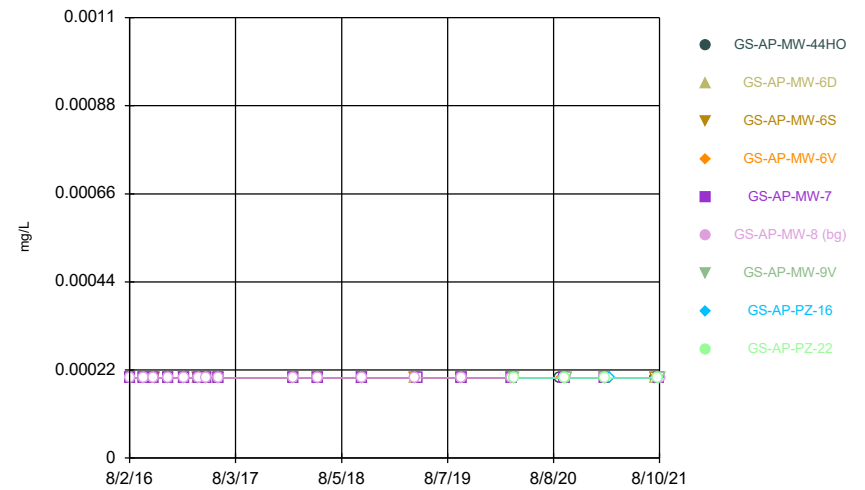
Constituent: Thallium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Thallium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Thallium Analysis Run 1/3/2022 11:21 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 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)							
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	
3/18/2020	0.0022 (J)			0.000976 (J)	0.0028 (J)				
3/24/2020		0.00128 (J)				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
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
2/8/2021									
2/9/2021				0.00075 (J)	0.00237				
2/10/2021						<0.00102	<0.00102		
6/9/2021							<0.00102		

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.00102	
8/2/2016		<0.00102
8/3/2016		
9/19/2016		<0.00102
9/20/2016		
9/21/2016	<0.00102	
10/24/2016	<0.00102	<0.00102
10/25/2016		
12/13/2016	0.000613 (J)	<0.00102
12/14/2016		
2/6/2017		
2/7/2017	<0.00102	
2/8/2017		<0.00102
3/27/2017		
3/28/2017	<0.00102	
3/29/2017		
3/30/2017		<0.00102
4/24/2017		
4/26/2017	<0.00102	<0.00102
6/5/2017		
6/6/2017	<0.00102	<0.00102
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.00102	<0.00102
5/15/2018		
5/16/2018	<0.00102	<0.00102
10/15/2018		
10/16/2018	<0.00102	<0.00102
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.00102	<0.00102
9/23/2019		
9/24/2019	<0.00102	
9/25/2019		<0.00102
3/16/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		<0.00102
9/21/2020		
9/22/2020	<0.00102	<0.00102
9/23/2020		
2/1/2021		<0.00102
2/2/2021		
2/8/2021	<0.00102	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.00102
8/9/2021		
8/10/2021	<0.00102	

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.00102								
9/21/2016	<0.00102								
10/25/2016	<0.00102								
12/14/2016	0.00119 (J)								
2/8/2017	<0.00102								
3/28/2017	<0.00102								
4/26/2017	<0.00102								
6/6/2017	<0.00102								
2/20/2018	<0.00102								
5/15/2018	<0.00102								
10/16/2018	<0.00102								
2/20/2019			0.000809 (J)						
2/26/2019				0.000918 (J)					
2/27/2019						0.00094 (J)		0.000932 (J)	
3/13/2019							0.00241 (J)		
4/17/2019	<0.00102								
9/23/2019			<0.00102			<0.00102			
9/24/2019	<0.00102			<0.00102				<0.00102	
9/25/2019						<0.00102			
3/16/2020						<0.00102			
3/17/2020			<0.00102						
3/18/2020	<0.00102			<0.00102					
3/23/2020		0.000831 (J)							
3/24/2020				<0.00102					
3/25/2020						<0.00102		<0.00102	
5/12/2020							<0.00102		
5/13/2020									
9/17/2020			<0.00102	<0.00102	<0.00102				
9/21/2020						<0.00102			
9/22/2020							<0.00102	<0.00102	
9/23/2020	<0.00102	<0.00102							
2/1/2021									
2/2/2021				<0.00102					
2/3/2021			<0.00102					<0.00102	
2/8/2021	<0.00102								
2/9/2021		0.000661 (J)				<0.00102			
2/10/2021					<0.00102				
2/17/2021							<0.00102		<0.00102
7/27/2021			<0.00102						
8/2/2021									
8/3/2021				<0.00102					<0.00102
8/4/2021	<0.00102							<0.00102	
8/9/2021							<0.00102		
8/10/2021						<0.00102			
8/11/2021		<0.00102							
8/12/2021				<0.00102					

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.00102	<0.00102
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.00102	
9/17/2020		
9/21/2020	<0.00102	
9/22/2020		<0.00102
9/23/2020		
2/1/2021		<0.00102
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	<0.00102	
7/27/2021		
8/2/2021	<0.00102	<0.00102
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.00102						
3/17/2020		<0.00102		<0.00102	<0.00102				
3/18/2020								<0.00102	
3/24/2020	<0.00102					<0.00102			
3/25/2020									
5/12/2020			<0.00102	<0.00102					
5/13/2020		<0.00102			<0.00102				
9/15/2020		<0.00102							
9/16/2020			<0.00102	<0.00102					
9/17/2020					<0.00102			<0.00102	
9/21/2020	<0.00102								
9/22/2020						<0.00102	<0.00102		
2/2/2021							<0.00102		
2/3/2021		<0.00102	<0.00102						
2/4/2021				<0.00102					
2/8/2021								<0.00102	<0.00102
2/9/2021						<0.00102			
2/10/2021	<0.00102								
2/17/2021					<0.00102				
7/27/2021		<0.00102	<0.00102						
7/28/2021				<0.00102					<0.00102
8/3/2021								<0.00102	
8/4/2021					<0.00102	<0.00102			
8/10/2021	<0.00102						<0.00102		

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.00102	<0.00102
2/2/2021		
2/3/2021	<0.00102	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		<0.00102
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	<0.00102	<0.00102
8/10/2021		

Time Series

Constituent: Antimony (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.00102				
8/3/2016		<0.00102	<0.00102			<0.00102			
9/20/2016		<0.00102	<0.00102						
9/21/2016					<0.00102	<0.00102			
10/24/2016		<0.00102			<0.00102				
10/25/2016						<0.00102			
10/26/2016			<0.00102						
12/12/2016		0.00104 (J)	0.000727 (J)		0.000891 (J)				
12/13/2016						0.00067 (J)			
2/6/2017		<0.00102	<0.00102		<0.00102	<0.00102			
3/27/2017		<0.00102	<0.00102						
3/28/2017					<0.00102	<0.00102			
4/24/2017		<0.00102	<0.00102		<0.00102	<0.00102			
6/6/2017		<0.00102	<0.00102						
6/7/2017					<0.00102	<0.00102			
2/19/2018		<0.00102	<0.00102		<0.00102	<0.00102			
5/14/2018		<0.00102	<0.00102						
5/15/2018					<0.00102	<0.00102			
10/15/2018		<0.00102	<0.00102		<0.00102				
10/16/2018						<0.00102			
4/16/2019		0.000828 (J)	<0.00102			<0.00102			
4/23/2019					0.00105 (J)				
9/23/2019		<0.00102	<0.00102						
9/24/2019					<0.00102	<0.00102			
3/17/2020		<0.00102	<0.00102		<0.00102				
3/18/2020						<0.00102			
3/23/2020							<0.00102		
3/24/2020								<0.00102	<0.00102
8/27/2020	0.0013 (J)								
9/8/2020				<0.00102					
9/15/2020	0.000819 (J)			<0.00102					
9/16/2020			0.000948 (J)		<0.00102				
9/17/2020		<0.00102					<0.00102	<0.00102	
9/21/2020						<0.00102			
9/22/2020						<0.00102			
2/2/2021					<0.00102	<0.00102	<0.00102		<0.00102
2/3/2021	<0.00102	<0.00102	0.00055 (J)	<0.00102					
2/17/2021							<0.00102		
7/27/2021	<0.00102	<0.00102	0.00123						
8/2/2021				<0.00102					
8/3/2021									<0.00102
8/9/2021					<0.00102		<0.00102		
8/10/2021						<0.00102	<0.00102		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 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							
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)	
3/18/2020	0.00693			0.0217	0.011				
3/24/2020		0.00266 (J)				<0.0002			
3/25/2020									<0.0002
5/12/2020								0.00326 (J)	
5/13/2020									
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
2/8/2021									
2/9/2021				0.0145	0.0165				
2/10/2021						0.000491	0.00173		
6/9/2021							0.00256		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.0002	
8/2/2016		<0.0002
8/3/2016		
9/19/2016		<0.0002
9/20/2016		
9/21/2016	<0.0002	
10/24/2016	<0.0002	<0.0002
10/25/2016		
12/13/2016	<0.0002	<0.0002
12/14/2016		
2/6/2017		
2/7/2017	<0.0002	
2/8/2017		<0.0002
3/27/2017		
3/28/2017	<0.0002	
3/29/2017		
3/30/2017		<0.0002
4/24/2017		
4/26/2017	<0.0002	<0.0002
6/5/2017		
6/6/2017	<0.0002	<0.0002
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	0.00138 (J)	<0.0002
5/15/2018		
5/16/2018	0.00114 (J)	<0.0002
10/15/2018		
10/16/2018	0.00216 (J)	<0.0002
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	0.00302 (J)	<0.0002
9/23/2019		
9/24/2019	0.00289 (J)	
9/25/2019		<0.0002
3/16/2020		
3/18/2020		
3/24/2020	0.00313 (J)	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		<0.0002
9/21/2020		
9/22/2020	0.00313 (J)	<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/8/2021	0.00178	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.0002
8/9/2021		
8/10/2021	0.00133	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	0.0027 (J)								
9/21/2016	0.00258 (J)								
10/25/2016	0.00214 (J)								
12/14/2016	0.00193 (J)								
2/8/2017	0.00188 (J)								
3/28/2017	0.00153 (J)								
4/26/2017	0.00135 (J)								
6/6/2017	0.00131 (J)								
2/20/2018	<0.0002								
5/15/2018	<0.0002								
10/16/2018	<0.0002								
2/20/2019			0.0306						
2/26/2019				<0.0002					
2/27/2019						<0.0002		<0.0002	
3/13/2019							0.00142 (J)		
4/17/2019	<0.0002								
9/23/2019			0.0369			<0.0002			
9/24/2019	<0.0002			<0.0002				0.00155 (J)	
9/25/2019						<0.0002			
3/16/2020						<0.0002			
3/17/2020			0.0524						
3/18/2020	<0.0002			<0.0002					
3/23/2020		0.0159							
3/24/2020					0.00798				
3/25/2020						<0.0002		0.00141 (J)	
5/12/2020							0.00135 (J)		
5/13/2020									
9/17/2020			0.0579	<0.0002	0.00904				
9/21/2020						0.00143 (J)			
9/22/2020							0.00112 (J)	0.00109 (J)	
9/23/2020	<0.0002	0.01							
2/1/2021									
2/2/2021				0.000341					
2/3/2021			0.0562					0.00794	
2/8/2021	0.000624								
2/9/2021		0.0063				0.000192 (J)			
2/10/2021					0.00923				
2/17/2021							0.000796		0.000168 (J)
7/27/2021			0.0474						
8/2/2021									
8/3/2021				0.00033					0.00014 (J)
8/4/2021	0.00054							0.00317	
8/9/2021							0.00063		
8/10/2021						0.00019 (J)			
8/11/2021		0.00161							
8/12/2021					0.00888				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	0.00813	0.0012 (J)
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	0.00779	
9/17/2020		
9/21/2020	0.00551	
9/22/2020		<0.0002
9/23/2020		
2/1/2021		0.000325
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.00354	
7/27/2021		
8/2/2021	0.003	0.00029
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			0.00351 (J)						
3/17/2020		0.0044 (J)		0.00105 (J)	0.00171 (J)				
3/18/2020								<0.0002	
3/24/2020	<0.0002					0.00302 (J)			
3/25/2020									
5/12/2020			0.00668	<0.0002					
5/13/2020		0.00308 (J)			0.00122 (J)				
9/15/2020		0.00275 (J)							
9/16/2020			0.00308 (J)	<0.0002					
9/17/2020					0.0013 (J)			0.0016 (J)	
9/21/2020	<0.0002								
9/22/2020						0.00304 (J)	0.00193 (J)		
2/2/2021							0.000958		
2/3/2021		0.00177	0.00257						
2/4/2021				0.000442					
2/8/2021								0.00148	0.000551
2/9/2021						0.0026			
2/10/2021	0.000838								
2/17/2021					0.00102				
7/27/2021		0.00143	0.00179						
7/28/2021				0.00024					0.00038
8/3/2021								0.00289	
8/4/2021					0.00246	0.00287			
8/10/2021	0.00058						0.00046		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	0.00944	
3/25/2020		0.00509
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	0.00912	0.0039 (J)
2/2/2021		
2/3/2021	0.00806	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.00132
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.00846	0.00125
8/10/2021		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					0.188				
8/3/2016		0.0547	0.0103			0.00214 (J)			
9/20/2016		0.0625	0.0103						
9/21/2016					0.179	0.00112 (J)			
10/24/2016		0.0695			0.151				
10/25/2016						<0.0002			
10/26/2016			0.0115						
12/12/2016		0.0611	0.0106		0.181				
12/13/2016						<0.0002			
2/6/2017		0.0618	0.0106		0.194	0.00111 (J)			
3/27/2017		0.0711	0.00989						
3/28/2017					0.205	0.00109 (J)			
4/24/2017		0.0787	0.00907		0.202	<0.0002			
6/6/2017		0.0778	0.0105						
6/7/2017					0.193	<0.0002			
2/19/2018		0.0616	0.0108		0.182	<0.0002			
5/14/2018		0.074	0.00864						
5/15/2018					0.211	<0.0002			
10/15/2018		0.0758	0.00832		0.217				
10/16/2018						<0.0002			
4/16/2019		0.088	0.0164			<0.0002			
4/23/2019					0.207				
9/23/2019		0.0876	0.0105						
9/24/2019					0.233	<0.0002			
3/17/2020		0.105	0.00778		0.285				
3/18/2020						<0.0002			
3/23/2020							<0.0002		
3/24/2020								<0.0002	0.00367 (J)
8/27/2020	0.00321 (J)								
9/8/2020				<0.0002					
9/15/2020	0.00184 (J)			<0.0002					
9/16/2020			0.00611		0.282				
9/17/2020		0.0931						<0.0002	0.00387 (J)
9/21/2020						<0.0002			
9/22/2020							<0.0002		
2/2/2021					0.275	0.000228	0.000101 (J)		0.00338
2/3/2021	0.000795	0.104	0.0071	0.000767					
2/17/2021								0.000258	
7/27/2021	0.00034	0.107	0.00634						
8/2/2021				0.00094					
8/3/2021									0.00296
8/9/2021					0.282			0.00059	
8/10/2021						0.00039	0.00032		

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	0.195			0.14	0.155				
3/24/2020		1.43				0.323			
3/25/2020									0.314
5/12/2020								0.0941	
5/13/2020									
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
2/8/2021									
2/9/2021				0.132	0.2				
2/10/2021						0.356	0.0976		
6/9/2021							0.0177		

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	0.492	
8/2/2016		0.0895
8/3/2016		
9/19/2016		0.0744
9/20/2016		
9/21/2016	0.371	
10/24/2016	0.311	0.0787
10/25/2016		
12/13/2016	0.374	0.0758
12/14/2016		
2/6/2017		
2/7/2017	0.368	
2/8/2017		0.0823
3/27/2017		
3/28/2017	0.391	
3/29/2017		
3/30/2017		0.0768
4/24/2017		
4/26/2017	0.371	0.077
6/5/2017		
6/6/2017	0.33	0.0711
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	0.291	0.0864
5/15/2018		
5/16/2018	0.343	0.0658
10/15/2018		
10/16/2018	0.35	0.0846
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	0.316	0.0576
9/23/2019		
9/24/2019	0.356	
9/25/2019		0.065
3/16/2020		
3/18/2020		
3/24/2020	0.324	
3/25/2020		0.0602
5/12/2020		
5/13/2020		0.0528
9/21/2020		
9/22/2020	0.337	0.0563
9/23/2020		
2/1/2021		0.0578
2/2/2021		
2/8/2021	0.36	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		0.0702
8/9/2021		
8/10/2021	0.343	

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	0.0535								
9/21/2016	0.0458								
10/25/2016	0.0489								
12/14/2016	0.0494								
2/8/2017	0.0449								
3/28/2017	0.0446								
4/26/2017	0.0424								
6/6/2017	0.0402								
2/20/2018	0.0441								
5/15/2018	0.0456								
10/16/2018	0.0909								
2/20/2019			0.0227						
2/26/2019				0.887					
2/27/2019						0.622		0.517	
3/13/2019							0.164		
4/17/2019	0.0914								
9/23/2019			0.0148			0.922			
9/24/2019	0.114			1.04				0.712	
9/25/2019							0.0528		
3/16/2020							0.0411		
3/17/2020			0.0143						
3/18/2020	0.105			0.964					
3/23/2020		0.0574							
3/24/2020					0.147				
3/25/2020						0.868		0.527	
5/12/2020							0.0436		
5/13/2020									
9/17/2020			0.0146	0.988	0.164				
9/21/2020						0.938			
9/22/2020							0.0385	0.499	
9/23/2020	0.157	0.0438							
2/1/2021									
2/2/2021				0.952					
2/3/2021			0.0138					0.318	
2/8/2021	0.151								
2/9/2021		0.028				0.775			
2/10/2021					0.208				
2/17/2021							0.0297		0.59
7/27/2021			0.0133						
8/2/2021									
8/3/2021				1.04					0.589
8/4/2021	0.148							0.264	
8/9/2021							0.0407		
8/10/2021						0.765			
8/11/2021		0.0535							
8/12/2021					0.2				

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	0.0791	0.106
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	0.0819	
9/17/2020		
9/21/2020	0.0811	
9/22/2020		0.0916
9/23/2020		
2/1/2021		0.0974
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.089	
7/27/2021		
8/2/2021	0.0965	0.102
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			0.0309						
3/17/2020		0.329		0.0426	0.0353				
3/18/2020								0.0393	
3/24/2020	0.0362					0.253			
3/25/2020									
5/12/2020			0.0379	0.0472					
5/13/2020		0.324			0.03				
9/15/2020		0.469							
9/16/2020			0.0451	0.0532					
9/17/2020					0.0378			0.0414	
9/21/2020	0.0396								
9/22/2020						0.319	0.0417		
2/2/2021							0.0384		
2/3/2021		0.465	0.0543						
2/4/2021				0.052					
2/8/2021								0.0434	0.0544
2/9/2021						0.356			
2/10/2021	0.0511								
2/17/2021					0.0463				
7/27/2021		0.46	0.0668						
7/28/2021				0.0492					0.0445
8/3/2021								0.045	
8/4/2021					0.0905	0.359			
8/10/2021	0.0475						0.0358		

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	0.0253	
3/25/2020		0.0927
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	0.0237	0.0921
2/2/2021		
2/3/2021	0.0216	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.0894
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.0256	0.102
8/10/2021		

Time Series

Constituent: Barium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					0.0927				
8/3/2016		0.852	0.27			0.0274			
9/20/2016		0.685	0.228						
9/21/2016					0.0979	0.0811			
10/24/2016		0.711			0.0751				
10/25/2016						0.0576			
10/26/2016			0.23						
12/12/2016		0.789	0.276		0.0737				
12/13/2016						0.0241			
2/6/2017		0.779	0.25		0.0773	0.0747			
3/27/2017		0.77	0.196						
3/28/2017					0.0728	0.0183			
4/24/2017		0.716	0.159		0.0724	0.04			
6/6/2017		0.611	0.137						
6/7/2017					0.0581	0.00769 (J)			
2/19/2018		0.872	0.145		0.0464	0.00762 (J)			
5/14/2018		0.914	0.12						
5/15/2018					0.0501	0.00701 (J)			
10/15/2018		0.896	0.118		0.049				
10/16/2018						0.0094 (J)			
4/16/2019		0.879	0.124			0.00459 (J)			
4/23/2019					0.113				
9/23/2019		0.903	0.124						
9/24/2019					0.0834	0.0434			
3/17/2020		0.638	0.0725		0.174				
3/18/2020						0.00507 (J)			
3/23/2020							0.215		
3/24/2020								0.295	0.104
8/27/2020	0.0867								
9/8/2020				0.164					
9/15/2020	0.0783			0.16					
9/16/2020			0.0682		0.124				
9/17/2020		0.378						0.223	0.109
9/21/2020						0.026			
9/22/2020							0.187		
2/2/2021					0.115	0.0068	0.17		0.0891
2/3/2021	0.0602	0.443	0.0779	0.124					
2/17/2021								0.27	
7/27/2021	0.0749	0.488	0.0876						
8/2/2021				0.143					
8/3/2021									0.0953
8/9/2021					0.0891			0.244	
8/10/2021						0.00805	0.165		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	<0.00102			<0.00102	<0.00102				
3/24/2020		<0.00102				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
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
2/8/2021									
2/9/2021				<0.00102	<0.00102				
2/10/2021						<0.00102	<0.00102		
6/9/2021							<0.00102		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.00102	
8/2/2016		<0.00102
8/3/2016		
9/19/2016		<0.00102
9/20/2016		
9/21/2016	<0.00102	
10/24/2016	<0.00102	<0.00102
10/25/2016		
12/13/2016	<0.00102	<0.00102
12/14/2016		
2/6/2017		
2/7/2017	<0.00102	
2/8/2017		<0.00102
3/27/2017		
3/28/2017	<0.00102	
3/29/2017		
3/30/2017		<0.00102
4/24/2017		
4/26/2017	<0.00102	<0.00102
6/5/2017		
6/6/2017	<0.00102	<0.00102
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.00102	<0.00102
5/15/2018		
5/16/2018	<0.00102	<0.00102
10/15/2018		
10/16/2018	<0.00102	0.00138 (J)
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.00102	<0.00102
9/23/2019		
9/24/2019	<0.00102	
9/25/2019		<0.00102
3/16/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		<0.00102
9/21/2020		
9/22/2020	<0.00102	<0.00102
9/23/2020		
2/1/2021		<0.00102
2/2/2021		
2/8/2021	<0.00102	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.00102
8/9/2021		
8/10/2021	<0.00102	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.00102								
9/21/2016	<0.00102								
10/25/2016	<0.00102								
12/14/2016	<0.00102								
2/8/2017	<0.00102								
3/28/2017	<0.00102								
4/26/2017	<0.00102								
6/6/2017	<0.00102								
2/20/2018	<0.00102								
5/15/2018	<0.00102								
10/16/2018	<0.00102								
2/20/2019			<0.00102						
2/26/2019				<0.00102					
2/27/2019						<0.00102		<0.00102	
3/13/2019							<0.00102		
4/17/2019	<0.00102								
9/23/2019			<0.00102			<0.00102			
9/24/2019	<0.00102			<0.00102					<0.00102
9/25/2019							<0.00102		
3/16/2020							<0.00102		
3/17/2020			<0.00102						
3/18/2020	<0.00102			<0.00102					
3/23/2020		<0.00102							
3/24/2020					<0.00102				
3/25/2020						<0.00102			<0.00102
5/12/2020							<0.00102		
5/13/2020									
9/17/2020			<0.00102	<0.00102	<0.00102				
9/21/2020						<0.00102			
9/22/2020							<0.00102		<0.00102
9/23/2020	<0.00102	<0.00102							
2/1/2021									
2/2/2021				<0.00102					
2/3/2021			<0.00102					<0.00102	
2/8/2021	<0.00102								
2/9/2021		<0.00102				<0.00102			
2/10/2021					<0.00102				
2/17/2021							<0.00102		<0.00102
7/27/2021			<0.00102						
8/2/2021									
8/3/2021				<0.00102					<0.00102
8/4/2021	<0.00102							<0.00102	
8/9/2021							<0.00102		
8/10/2021						<0.00102			
8/11/2021		<0.00102							
8/12/2021				<0.00102					

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.00102	<0.00102
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.00102	
9/17/2020		
9/21/2020	<0.00102	
9/22/2020		<0.00102
9/23/2020		
2/1/2021		<0.00102
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	<0.00102	
7/27/2021		
8/2/2021	<0.00102	<0.00102
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.00102						
3/17/2020		<0.00102		<0.00102	<0.00102				
3/18/2020								<0.00102	
3/24/2020	<0.00102					<0.00102			
3/25/2020									
5/12/2020			<0.00102	<0.00102					
5/13/2020		<0.00102			<0.00102				
9/15/2020		<0.00102							
9/16/2020			<0.00102	<0.00102					
9/17/2020					<0.00102			<0.00102	
9/21/2020	<0.00102								
9/22/2020						<0.00102	<0.00102		
2/2/2021							<0.00102		
2/3/2021		<0.00102	<0.00102						
2/4/2021				<0.00102					
2/8/2021								<0.00102	<0.00102
2/9/2021						<0.00102			
2/10/2021	<0.00102								
2/17/2021					<0.00102				
7/27/2021		<0.00102	<0.00102						
7/28/2021				<0.00102					<0.00102
8/3/2021								<0.00102	
8/4/2021					<0.00102	<0.00102			
8/10/2021	<0.00102						<0.00102		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.00102	<0.00102
2/2/2021		
2/3/2021	<0.00102	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		<0.00102
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	<0.00102	<0.00102
8/10/2021		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.00102				
8/3/2016		<0.00102	<0.00102			<0.00102			
9/20/2016		<0.00102	<0.00102						
9/21/2016					<0.00102	<0.00102			
10/24/2016		<0.00102			<0.00102				
10/25/2016						<0.00102			
10/26/2016			<0.00102						
12/12/2016		<0.00102	<0.00102		<0.00102				
12/13/2016						<0.00102			
2/6/2017		<0.00102	<0.00102		<0.00102	<0.00102			
3/27/2017		<0.00102	<0.00102						
3/28/2017					<0.00102	<0.00102			
4/24/2017		<0.00102	<0.00102		<0.00102	<0.00102			
6/6/2017		<0.00102	<0.00102						
6/7/2017					<0.00102	<0.00102			
2/19/2018		<0.00102	<0.00102		<0.00102	<0.00102			
5/14/2018		<0.00102	<0.00102						
5/15/2018					<0.00102	<0.00102			
10/15/2018		<0.00102	0.000794 (J)		<0.00102				
10/16/2018						<0.00102			
4/16/2019		<0.00102	<0.00102			<0.00102			
4/23/2019					<0.00102				
9/23/2019		<0.00102	<0.00102						
9/24/2019					<0.00102	<0.00102			
3/17/2020		<0.00102	<0.00102		<0.00102				
3/18/2020						<0.00102			
3/23/2020							<0.00102		
3/24/2020								<0.00102	<0.00102
8/27/2020	<0.00102								
9/8/2020				<0.00102					
9/15/2020	<0.00102			<0.00102					
9/16/2020			<0.00102		<0.00102				
9/17/2020		<0.00102						<0.00102	<0.00102
9/21/2020						<0.00102			
9/22/2020							<0.00102		
2/2/2021					<0.00102	<0.00102	<0.00102		<0.00102
2/3/2021	<0.00102	<0.00102	<0.00102	<0.00102					
2/17/2021								<0.00102	
7/27/2021	<0.00102	<0.00102	<0.00102						
8/2/2021				<0.00102					
8/3/2021									<0.00102
8/9/2021					<0.00102			<0.00102	
8/10/2021						<0.00102	<0.00102		

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	0.0279 (J)	
8/2/2016		0.178
8/3/2016		
9/19/2016		0.0937 (J)
9/20/2016		
9/21/2016	0.0235 (J)	
10/24/2016	0.0444 (J)	0.0986 (J)
10/25/2016		
12/13/2016	0.0285 (J)	0.0965 (J)
12/14/2016		
2/6/2017		
2/7/2017	0.03 (J)	
2/8/2017		0.0896 (J)
3/27/2017		
3/28/2017	0.0309 (J)	
3/29/2017		
3/30/2017		0.0871 (J)
4/24/2017		
4/26/2017	0.0273 (J)	0.0818 (J)
6/5/2017		
6/6/2017	0.0212 (J)	0.0805 (J)
6/7/2017		
8/21/2017		0.102
8/22/2017	0.0294 (J)	
5/15/2018		
5/16/2018	0.0356 (J)	0.147
10/15/2018		
10/16/2018	0.0363 (J)	0.169
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	0.0336 (J)	0.165
9/23/2019		
9/24/2019	0.0375 (J)	
9/25/2019		0.153
3/16/2020		
3/18/2020		
3/24/2020	0.0398 (J)	
3/25/2020		0.163
5/12/2020		
5/13/2020		0.154
9/21/2020		
9/22/2020	0.037 (J)	0.133
9/23/2020		
2/1/2021		0.13
2/2/2021		
2/8/2021	0.0336 (J)	
2/9/2021		
2/10/2021		
6/9/2021		
8/2/2021		

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/3/2021		
8/4/2021		0.117
8/9/2021		
8/10/2021	<0.1015	

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	0.176 (o)								
9/21/2016	0.0723 (J)								
10/25/2016	0.0867 (J)								
12/14/2016	0.092 (J)								
2/8/2017	0.0803 (J)								
3/28/2017	0.0804 (J)								
4/26/2017	0.0801 (J)								
6/6/2017	0.0795 (J)								
8/23/2017	0.0764 (J)								
5/15/2018	0.0769 (J)								
10/16/2018	0.0764 (J)								
2/20/2019			0.0498 (J)						
2/26/2019				0.0719 (J)					
2/27/2019						<0.1015		0.0359 (J)	
3/13/2019							0.0819 (J)		
4/17/2019	0.0675 (J)								
9/23/2019			0.0641 (J)			<0.1015			
9/24/2019	0.0843 (J)			0.0821 (J)				0.0305 (J)	
9/25/2019							0.0784 (J)		
3/16/2020							0.0751 (J)		
3/17/2020			0.0504 (J)						
3/18/2020	0.0824 (J)			0.0811 (J)					
3/23/2020		0.122							
3/24/2020					0.146				
3/25/2020						<0.1015		<0.1015	
5/12/2020							0.0719 (J)		
5/13/2020									
9/17/2020			0.0637 (J)	0.069 (J)	0.138				
9/21/2020						0.0334 (J)			
9/22/2020							0.0728 (J)	0.175	
9/23/2020	0.0871 (J)	0.126							
2/1/2021									
2/2/2021				0.0685 (J)					
2/3/2021			0.0425 (J)					0.809	
2/8/2021	0.0991 (J)								
2/9/2021		0.114				<0.1015			
2/10/2021					0.147				
2/17/2021							0.0748 (J)		0.426
7/27/2021			0.0474 (J)						
8/2/2021									
8/3/2021				0.0721 (J)					0.386
8/4/2021	0.0993 (J)							0.447	
8/9/2021							0.063 (J)		
8/10/2021						<0.1015			
8/11/2021		0.0631 (J)							
8/12/2021				0.13					

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
8/23/2017		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	0.0734 (J)	<0.1015
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	0.0747 (J)	
9/17/2020		
9/21/2020	0.0814 (J)	
9/22/2020		<0.1015
9/23/2020		
2/1/2021		<0.1015
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.0668 (J)	
7/27/2021		
8/2/2021	0.06 (J)	<0.1015
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			0.0827 (J)						
3/17/2020		0.066 (J)		<0.1015	0.0394 (J)				
3/18/2020								1.45	
3/24/2020	0.0492 (J)					0.0468 (J)			
3/25/2020									
5/12/2020			0.0929 (J)	<0.1015					
5/13/2020		0.0409 (J)			0.0359 (J)				
9/15/2020		0.0425 (J)							
9/16/2020			0.0874 (J)	<0.1015					
9/17/2020					0.0345 (J)			1.42	
9/21/2020	0.0455 (J)								
9/22/2020						0.0461 (J)	0.0326 (J)		
2/2/2021							0.0305 (J)		
2/3/2021		0.0453 (J)	0.0964 (J)						
2/4/2021				<0.1015					
2/8/2021								1.48	1.06
2/9/2021						0.0504 (J)			
2/10/2021	0.0477 (J)								
2/17/2021					0.0413 (J)				
7/27/2021		0.0417 (J)	0.108						
7/28/2021				<0.1015					1.09
8/3/2021								1.48	
8/4/2021					0.0449 (J)	0.0479 (J)			
8/10/2021	0.0393 (J)						<0.1015		

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.1015	
3/25/2020		0.112
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	0.0469 (J)	0.12
2/2/2021		
2/3/2021	0.053 (J)	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.119
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.0578 (J)	0.126
8/10/2021		

Time Series

Constituent: Boron (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					1.57				
8/3/2016		1.04	1.16			0.0239 (J)			
9/20/2016		1.01	1.16						
9/21/2016					1.4	<0.1015			
10/24/2016		1.08			1.42				
10/25/2016						<0.1015			
10/26/2016			1.24						
12/12/2016		1.09	1.24		1.38				
12/13/2016						<0.1015			
2/6/2017		1.06	1.1		1.44	<0.1015			
3/27/2017		1.07	1.04						
3/28/2017					1.44	<0.1015			
4/24/2017		1.08	1		1.41	<0.1015			
6/6/2017		1.11	1.02						
6/7/2017					1.45	<0.1015			
8/21/2017		0.906	1.05		1.39	<0.1015			
5/14/2018		1.04	0.99						
5/15/2018					1.5	<0.1015			
10/15/2018		1.06	1.05		1.53				
10/16/2018						<0.1015			
4/16/2019		1.1	0.961			<0.1015			
4/23/2019					1.5				
9/23/2019		1.15	1.08						
9/24/2019					1.6	<0.1015			
3/17/2020		1.17	0.867		1.58				
3/18/2020						<0.1015			
3/23/2020							0.0316 (J)		
3/24/2020								0.0772 (J)	0.0521 (J)
8/27/2020	0.0366 (J)								
9/8/2020				0.0974 (J)					
9/15/2020	0.0404 (J)			0.0974 (J)					
9/16/2020			0.8		1.54				
9/17/2020		1.22						0.0824 (J)	0.0454 (J)
9/21/2020						<0.1015			
9/22/2020							0.0348 (J)		
2/2/2021					1.6	<0.1015	0.0358 (J)		0.0486 (J)
2/3/2021	0.0472 (J)	1.24	0.817	0.1 (J)					
2/17/2021								0.089 (J)	
7/27/2021	0.0429 (J)	1.29	0.873						
8/2/2021				0.101 (J)					
8/3/2021									0.0478 (J)
8/9/2021					1.62			0.0747 (J)	
8/10/2021						<0.1015	<0.1015		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	<0.0002			<0.0002	<0.0002				
3/24/2020		<0.0002				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
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
2/8/2021									
2/9/2021				<0.0002	<0.0002				
2/10/2021						<0.0002	<0.0002		
6/9/2021							<0.0002		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.0002	
8/2/2016		<0.0002
8/3/2016		
9/19/2016		<0.0002
9/20/2016		
9/21/2016	<0.0002	
10/24/2016	<0.0002	<0.0002
10/25/2016		
12/13/2016	<0.0002	<0.0002
12/14/2016		
2/6/2017		
2/7/2017	<0.0002	
2/8/2017		<0.0002
3/27/2017		
3/28/2017	<0.0002	
3/29/2017		
3/30/2017		<0.0002
4/24/2017		
4/26/2017	<0.0002	<0.0002
6/5/2017		
6/6/2017	<0.0002	<0.0002
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.0002	<0.0002
5/15/2018		
5/16/2018	<0.0002	<0.0002
10/15/2018		
10/16/2018	<0.0002	<0.0002
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.0002	<0.0002
9/23/2019		
9/24/2019	<0.0002	
9/25/2019		<0.0002
3/16/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		<0.0002
9/21/2020		
9/22/2020	<0.0002	<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/8/2021	<0.0002	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.0002
8/9/2021		
8/10/2021	<0.0002	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.0002								
9/21/2016	<0.0002								
10/25/2016	<0.0002								
12/14/2016	<0.0002								
2/8/2017	<0.0002								
3/28/2017	<0.0002								
4/26/2017	<0.0002								
6/6/2017	<0.0002								
2/20/2018	<0.0002								
5/15/2018	<0.0002								
10/16/2018	<0.0002								
2/20/2019			<0.0002						
2/26/2019				<0.0002					
2/27/2019						<0.0002		<0.0002	
3/13/2019							<0.0002		
4/17/2019	<0.0002								
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						
3/18/2020	<0.0002			<0.0002					
3/23/2020		<0.0002							
3/24/2020					<0.0002				
3/25/2020						<0.0002			<0.0002
5/12/2020							<0.0002		
5/13/2020									
9/17/2020			<0.0002	<0.0002	<0.0002				
9/21/2020						<0.0002			
9/22/2020							<0.0002		<0.0002
9/23/2020	<0.0002	<0.0002							
2/1/2021									
2/2/2021				<0.0002					
2/3/2021			<0.0002						<0.0002
2/8/2021	<0.0002								
2/9/2021		<0.0002				<0.0002			
2/10/2021					<0.0002				
2/17/2021							<0.0002		<0.0002
7/27/2021			<0.0002						
8/2/2021									
8/3/2021				<0.0002					<0.0002
8/4/2021	<0.0002							<0.0002	
8/9/2021							<0.0002		
8/10/2021						<0.0002			
8/11/2021		<0.0002							
8/12/2021				<0.0002					

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.0002	<0.0002
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.0002	
9/17/2020		
9/21/2020	<0.0002	
9/22/2020		<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	<0.0002	
7/27/2021		
8/2/2021	<0.0002	<0.0002
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.0002						
3/17/2020		<0.0002		<0.0002	<0.0002				
3/18/2020								<0.0002	
3/24/2020	<0.0002					<0.0002			
3/25/2020									
5/12/2020			<0.0002	<0.0002					
5/13/2020		<0.0002			<0.0002				
9/15/2020		<0.0002							
9/16/2020			<0.0002	<0.0002					
9/17/2020					<0.0002			<0.0002	
9/21/2020	<0.0002								
9/22/2020						<0.0002	<0.0002		
2/2/2021							<0.0002		
2/3/2021		<0.0002	<0.0002						
2/4/2021				<0.0002					
2/8/2021								<0.0002	<0.0002
2/9/2021						<0.0002			
2/10/2021	<0.0002								
2/17/2021					<0.0002				
7/27/2021		<0.0002	<0.0002						
7/28/2021				<0.0002					<0.0002
8/3/2021								<0.0002	
8/4/2021					<0.0002	<0.0002			
8/10/2021	<0.0002						<0.0002		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.0002	<0.0002
2/2/2021		
2/3/2021	<0.0002	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		<0.0002
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	<0.0002	<0.0002
8/10/2021		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.0002				
8/3/2016		<0.0002	<0.0002			<0.0002			
9/20/2016		<0.0002	<0.0002						
9/21/2016					<0.0002	<0.0002			
10/24/2016		<0.0002			<0.0002				
10/25/2016						<0.0002			
10/26/2016			<0.0002						
12/12/2016		<0.0002	<0.0002		<0.0002				
12/13/2016						<0.0002			
2/6/2017		<0.0002	<0.0002		<0.0002	<0.0002			
3/27/2017		<0.0002	<0.0002						
3/28/2017					<0.0002	<0.0002			
4/24/2017		<0.0002	<0.0002		<0.0002	<0.0002			
6/6/2017		<0.0002	<0.0002						
6/7/2017					<0.0002	<0.0002			
2/19/2018		<0.0002	<0.0002		<0.0002	<0.0002			
5/14/2018		<0.0002	<0.0002						
5/15/2018					<0.0002	<0.0002			
10/15/2018		<0.0002	<0.0002		<0.0002				
10/16/2018						<0.0002			
4/16/2019		<0.0002	<0.0002			<0.0002			
4/23/2019					<0.0002				
9/23/2019		<0.0002	<0.0002						
9/24/2019					<0.0002	<0.0002			
3/17/2020		<0.0002	<0.0002		<0.0002				
3/18/2020						<0.0002			
3/23/2020							<0.0002		
3/24/2020								<0.0002	<0.0002
8/27/2020	<0.0002								
9/8/2020				<0.0002					
9/15/2020	<0.0002			<0.0002					
9/16/2020			<0.0002		<0.0002				
9/17/2020		<0.0002						<0.0002	<0.0002
9/21/2020						<0.0002			
9/22/2020							<0.0002		
2/2/2021					<0.0002	<0.0002	<0.0002		<0.0002
2/3/2021	<0.0002	<0.0002	<0.0002	<0.0002					
2/17/2021								<0.0002	
7/27/2021	<0.0002	<0.0002	<0.0002						
8/2/2021				<0.0002					
8/3/2021									<0.0002
8/9/2021					<0.0002			<0.0002	
8/10/2021						<0.0002	<0.0002		

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	39.6	
8/2/2016		2.25
8/3/2016		
9/19/2016		0.724
9/20/2016		
9/21/2016	38.1	
10/24/2016	34.7	0.635
10/25/2016		
12/13/2016	44	0.714
12/14/2016		
2/6/2017		
2/7/2017	39	
2/8/2017		0.722
3/27/2017		
3/28/2017	43.9	
3/29/2017		
3/30/2017		0.686
4/24/2017		
4/26/2017	42.8	0.646
6/5/2017		
6/6/2017	43.1	0.569
6/7/2017		
8/21/2017		0.634
8/22/2017	40.7	
5/15/2018		
5/16/2018	45.3	0.588
10/15/2018		
10/16/2018	40.9	0.714
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	38.4	0.511
9/23/2019		
9/24/2019	48.4	
9/25/2019		0.581
3/16/2020		
3/18/2020		
3/24/2020	41.7	
3/25/2020		0.518
5/12/2020		
5/13/2020		0.493 (J)
9/21/2020		
9/22/2020	46.9	0.503
9/23/2020		
2/1/2021		0.517
2/2/2021		
2/8/2021	56.8	
2/9/2021		
2/10/2021		
6/9/2021		
8/2/2021		

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/3/2021		
8/4/2021		0.564
8/9/2021		
8/10/2021	54.8	

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	5.29								
9/21/2016	4.51								
10/25/2016	4.92								
12/14/2016	3.5								
2/8/2017	3.75								
3/28/2017	3.63								
4/26/2017	3.3								
6/6/2017	3.24								
8/23/2017	6.6								
5/15/2018	7.57								
10/16/2018	4.4								
2/20/2019			64.5						
2/26/2019				46					
2/27/2019						29.1		12.1	
3/13/2019							3.42		
4/17/2019	2.88								
9/23/2019			80.6			29.6			
9/24/2019	2.47			46.5				32.8	
9/25/2019							2.52		
3/16/2020							2.4		
3/17/2020			79.8						
3/18/2020	2.35			44					
3/23/2020		110							
3/24/2020					2.42				
3/25/2020						28.6		27.8	
5/12/2020							2.83		
5/13/2020									
9/17/2020			87.2	45.5	1.99				
9/21/2020						27.6			
9/22/2020							2.37	28.1	
9/23/2020	1.96	119							
2/1/2021									
2/2/2021				42.4					
2/3/2021			75.6					26.1	
2/8/2021	1.95								
2/9/2021		73.8				28.1			
2/10/2021					2.11				
2/17/2021							2.02		39.3
7/27/2021			75.5						
8/2/2021									
8/3/2021				43.4					30.8
8/4/2021	1.76							17.7	
8/9/2021							1.75		
8/10/2021						27.2			
8/11/2021		13.8							
8/12/2021					1.79				

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
8/23/2017		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	36	6.06
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	35.3	
9/17/2020		
9/21/2020	29.4	
9/22/2020		5.31
9/23/2020		
2/1/2021		4.92
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	29.7	
7/27/2021		
8/2/2021	43.8	4.6
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			83.8						
3/17/2020		42.3		5.27	3.45				
3/18/2020								56.6	
3/24/2020	2.62					9.33			
3/25/2020									
5/12/2020			80.4	3.04					
5/13/2020		25.2			2.93				
9/15/2020		29.5							
9/16/2020			86.9	3.04					
9/17/2020					4.12			61.1	
9/21/2020	3								
9/22/2020						9.56	205		
2/2/2021							199		
2/3/2021		30.3	100						
2/4/2021				3.3					
2/8/2021								60.8	49.8
2/9/2021						10.6			
2/10/2021	3.24								
2/17/2021					3.16				
7/27/2021		30.5	100						
7/28/2021				2.51					45.1
8/3/2021								57.1	
8/4/2021					5.78	12.2			
8/10/2021	3.59						197		

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	149	
3/25/2020		4.11
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	142	2.82
2/2/2021		
2/3/2021	134	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		4.82
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	133	4.58
8/10/2021		

Time Series

Constituent: Calcium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					19.4				
8/3/2016		48.1	42.5			6.85			
9/20/2016		51.2	51.1						
9/21/2016					15.4	11.7			
10/24/2016		49.5			14.8				
10/25/2016						10.8			
10/26/2016			65.6						
12/12/2016		54.3	66.5		15				
12/13/2016						5.86			
2/6/2017		51.2	73.1		14.9	9.76			
3/27/2017		51.4	71.9						
3/28/2017					14.3	5.28			
4/24/2017		54.7	73.5		14.5	6.89			
6/6/2017		53.9	71.8						
6/7/2017					14.1	3.58			
8/21/2017		47.3	63.5		12.6	3.38			
5/14/2018		54.8	67.5						
5/15/2018					12.9	4.25			
10/15/2018		53.9	68.9		12.5				
10/16/2018						3.21			
4/16/2019		54	57.1			4.43			
4/23/2019					13.8				
9/23/2019		56.1	60						
9/24/2019					13.4	7.24			
3/17/2020		57.2	59.3		13.5				
3/18/2020						4.51			
3/23/2020							42.9		
3/24/2020								13.9	19.3
8/27/2020	2.89								
9/8/2020				1.8					
9/15/2020	2.94			1.74					
9/16/2020			55.9		12.2				
9/17/2020		61.5						9.69	12.6
9/21/2020						5.19			
9/22/2020							45.3		
2/2/2021					12.2	4.35	44.8		16.5
2/3/2021	2.87	56.9	50.7	1.5					
2/17/2021								9.59	
7/27/2021	1.46	55.5	52.6						
8/2/2021				2.1					
8/3/2021									16
8/9/2021					11.6			18.5	
8/10/2021						4.47	45.1		

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	6.67	
8/2/2016		6.15
8/3/2016		
9/19/2016		5.98
9/20/2016		
9/21/2016	6.54	
10/24/2016	8.77	5.93
10/25/2016		
12/13/2016	6.16	5.7
12/14/2016		
2/6/2017		
2/7/2017	7.57	
2/8/2017		8.44
3/27/2017		
3/28/2017	5.9	
3/29/2017		
3/30/2017		11
4/24/2017		
4/26/2017	6.5	10
6/5/2017		
6/6/2017	5.5	9.6
6/7/2017		
8/21/2017		12
8/22/2017	6.5	
5/15/2018		
5/16/2018	6.6	12
10/15/2018		
10/16/2018	6.2	20
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	7.27	9.5
9/23/2019		
9/24/2019	5.83	
9/25/2019		12
3/16/2020		
3/18/2020		
3/24/2020	6.29	
3/25/2020		9.7
5/12/2020		
5/13/2020		8.25
9/21/2020		
9/22/2020	6.6	6.33
9/23/2020		
2/1/2021		8.42
2/2/2021		
2/8/2021	6	
2/9/2021		
2/10/2021		
6/9/2021		
8/2/2021		

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/3/2021		
8/4/2021		7.25
8/9/2021		
8/10/2021	4.83	

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	28.1								
9/21/2016	26.8								
10/25/2016	26								
12/14/2016	25.3								
2/8/2017	23.8								
3/28/2017	28								
4/26/2017	27								
6/6/2017	28								
8/23/2017	29								
5/15/2018	27								
10/16/2018	31								
2/20/2019			2.58						
2/26/2019				3.28					
2/27/2019						2.87		3.09	
3/13/2019							8		
4/17/2019	32.3								
9/23/2019			2.26			2.35			
9/24/2019	36			2.89				3.11	
9/25/2019							8.93		
3/16/2020							10.6		
3/17/2020			2.62						
3/18/2020	49.5			3.5					
3/23/2020		981							
3/24/2020				38					
3/25/2020						2.73		3.1	
5/12/2020							12.7		
5/13/2020									
9/17/2020			1.92	3.19	38.3				
9/21/2020						3.25			
9/22/2020							12.2	13.2	
9/23/2020	56.9	1100							
2/1/2021									
2/2/2021				3.06					
2/3/2021			2.07					18.9	
2/8/2021	39.8								
2/9/2021		592				2.55			
2/10/2021					43.7				
2/17/2021							10.3		17.4
7/27/2021			2.48						
8/2/2021									
8/3/2021				2.94					13.6
8/4/2021	54.8							13.8	
8/9/2021							7.85		
8/10/2021						2.87			
8/11/2021		162							
8/12/2021				36.3					

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
8/23/2017		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	5.14	41.3
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	4.24	
9/17/2020		
9/21/2020	3.45	
9/22/2020		27.3
9/23/2020		
2/1/2021		31.2
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	3.69	
7/27/2021		
8/2/2021	4.28	38.5
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			101						
3/17/2020		108		23.9	29.4				
3/18/2020								6.02	
3/24/2020	20.5					12.6			
3/25/2020									
5/12/2020			148	14.5					
5/13/2020		63.3			27.2				
9/15/2020		75.6							
9/16/2020			210	20.9					
9/17/2020					38.5			6.63	
9/21/2020	28.2								
9/22/2020						24.8	30.4		
2/2/2021							36.8		
2/3/2021		55.2	156						
2/4/2021				23.9					
2/8/2021								6.44	9.18
2/9/2021						28.1			
2/10/2021	39.4								
2/17/2021					24.3				
7/27/2021		75.3	386						
7/28/2021				16.7					8.34
8/3/2021								6.07	
8/4/2021					59.8	33.1			
8/10/2021	36.6						28		

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	3.35	
3/25/2020		90.6
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	7.07	78
2/2/2021		
2/3/2021	10.1	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		96.3
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	9.75	69.4
8/10/2021		

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					3.7				
8/3/2016		5.2	21.9			3.21			
9/20/2016		5.31	20.9						
9/21/2016					3.74	2.95			
10/24/2016		5.4			3.75				
10/25/2016						3.03			
10/26/2016			20.7						
12/12/2016		5.46	21.1		4.06				
12/13/2016						3.21			
2/6/2017		5.28	23.3		3.92	3			
3/27/2017		6.4	25						
3/28/2017					4.3	3.3			
4/24/2017		6.5	24		4.6	3.8			
6/6/2017		4.7	22						
6/7/2017					4.3	3.5			
8/21/2017		6.1	21		4.7	3.6			
5/14/2018		6	20						
5/15/2018					4.3	3.3			
10/15/2018		7	20		5.1				
10/16/2018						3.3			
4/16/2019		8.36	23.1			3.69			
4/23/2019					5.16				
9/23/2019		8.72	23.4						
9/24/2019					5.76	3.21			
3/17/2020		10.1	17.4		6.65				
3/18/2020						4.35			
3/23/2020							5.13		
3/24/2020								5.72	2.53
8/27/2020	27.1								
9/8/2020				50.4					
9/15/2020	36.2			49.8					
9/16/2020			14.6		6.17				
9/17/2020		10.5						6.57	2.46
9/21/2020						3.22			
9/22/2020							7.57		
2/2/2021					6.76	3.85	10.8		2.99
2/3/2021	44.8	12.2	14.9	48					
2/17/2021								6.69	
7/27/2021	33.4	11.1	17						
8/2/2021				94.1					
8/3/2021									2.67
8/9/2021					7.03			6.22	
8/10/2021						4.04	18.8		

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	<0.00102			<0.00102	0.00716 (J)				
3/24/2020		0.00774 (J)				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
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)
2/8/2021									
2/9/2021				0.00072 (J)	0.00142				
2/10/2021						0.00107	0.000246 (J)		
6/9/2021							0.00098 (J)		

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.00102	
8/2/2016		<0.00102
8/3/2016		
9/19/2016		<0.00102
9/20/2016		
9/21/2016	<0.00102	
10/24/2016	<0.00102	<0.00102
10/25/2016		
12/13/2016	<0.00102	<0.00102
12/14/2016		
2/6/2017		
2/7/2017	<0.00102	
2/8/2017		<0.00102
3/27/2017		
3/28/2017	<0.00102	
3/29/2017		
3/30/2017		<0.00102
4/24/2017		
4/26/2017	<0.00102	<0.00102
6/5/2017		
6/6/2017	<0.00102	<0.00102
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.00102	<0.00102
5/15/2018		
5/16/2018	<0.00102	<0.00102
10/15/2018		
10/16/2018	<0.00102	<0.00102
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.00102	<0.00102
9/23/2019		
9/24/2019	<0.00102	
9/25/2019		<0.00102
3/16/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		<0.00102
9/21/2020		
9/22/2020	<0.00102	<0.00102
9/23/2020		
2/1/2021		0.000505 (J)
2/2/2021		
2/8/2021	0.000258 (J)	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		0.00085 (J)
8/9/2021		
8/10/2021	0.00032 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.00102								
9/21/2016	0.00233 (J)								
10/25/2016	0.00204 (J)								
12/14/2016	<0.00102								
2/8/2017	<0.00102								
3/28/2017	<0.00102								
4/26/2017	<0.00102								
6/6/2017	<0.00102								
2/20/2018	0.00219 (J)								
5/15/2018	<0.00102								
10/16/2018	<0.00102								
2/20/2019			<0.00102						
2/26/2019				<0.00102					
2/27/2019						<0.00102		<0.00102	
3/13/2019							<0.00102		
4/17/2019	<0.00102								
9/23/2019			<0.00102			0.00295 (J)			
9/24/2019	<0.00102			<0.00102				<0.00102	
9/25/2019							<0.00102		
3/16/2020							<0.00102		
3/17/2020			<0.00102						
3/18/2020	<0.00102			<0.00102					
3/23/2020		<0.00102							
3/24/2020					<0.00102				
3/25/2020						0.00547 (J)		<0.00102	
5/12/2020							0.00281 (J)		
5/13/2020									
9/17/2020			<0.00102	<0.00102	<0.00102				
9/21/2020						0.00804 (J)			
9/22/2020							<0.00102	<0.00102	
9/23/2020	<0.00102	<0.00102							
2/1/2021									
2/2/2021				0.000382 (J)					
2/3/2021			0.000222 (J)					<0.00102	
2/8/2021	0.000705 (J)								
2/9/2021		0.000218 (J)				<0.00102			
2/10/2021					<0.00102				
2/17/2021							0.000352 (J)		0.000326 (J)
7/27/2021			<0.00102						
8/2/2021									
8/3/2021				0.00028 (J)					0.00027 (J)
8/4/2021	0.00042 (J)							0.00022 (J)	
8/9/2021							0.0005 (J)		
8/10/2021						0.00037 (J)			
8/11/2021		0.00134							
8/12/2021					0.00035 (J)				

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.00102	0.00264 (J)
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.00102	
9/17/2020		
9/21/2020	<0.00102	
9/22/2020		<0.00102
9/23/2020		
2/1/2021		0.000345 (J)
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.000418 (J)	
7/27/2021		
8/2/2021	0.00035 (J)	0.00029 (J)
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.00102						
3/17/2020		<0.00102		<0.00102	<0.00102				
3/18/2020								<0.00102	
3/24/2020	<0.00102					<0.00102			
3/25/2020									
5/12/2020			<0.00102	<0.00102					
5/13/2020		<0.00102			<0.00102				
9/15/2020		<0.00102							
9/16/2020			<0.00102	<0.00102					
9/17/2020					<0.00102			<0.00102	
9/21/2020	<0.00102								
9/22/2020						<0.00102	<0.00102		
2/2/2021							0.000222 (J)		
2/3/2021		0.000207 (J)	0.000397 (J)						
2/4/2021				0.000211 (J)					
2/8/2021								0.000235 (J)	<0.00102
2/9/2021						<0.00102			
2/10/2021	<0.00102								
2/17/2021					0.000271 (J)				
7/27/2021		0.00028 (J)	0.0005 (J)						
7/28/2021				0.00041 (J)					0.00031 (J)
8/3/2021								0.00025 (J)	
8/4/2021					0.00032 (J)	<0.00102			
8/10/2021	0.00027 (J)						0.00032 (J)		

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.00102	<0.00102
2/2/2021		
2/3/2021	0.000298 (J)	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.000219 (J)
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.00026 (J)	0.00031 (J)
8/10/2021		

Time Series

Constituent: Chromium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.00102				
8/3/2016		<0.00102	<0.00102			<0.00102			
9/20/2016		<0.00102	<0.00102						
9/21/2016					<0.00102	0.00266 (J)			
10/24/2016		<0.00102			0.00216 (J)				
10/25/2016						<0.00102			
10/26/2016			<0.00102						
12/12/2016		<0.00102	<0.00102		<0.00102				
12/13/2016						<0.00102			
2/6/2017		<0.00102	<0.00102		<0.00102	<0.00102			
3/27/2017		<0.00102	<0.00102						
3/28/2017					<0.00102	0.00322 (J)			
4/24/2017		<0.00102	<0.00102		<0.00102	<0.00102			
6/6/2017		<0.00102	<0.00102						
6/7/2017					<0.00102	0.00227 (J)			
2/19/2018		<0.00102	<0.00102		<0.00102	<0.00102			
5/14/2018		<0.00102	<0.00102						
5/15/2018					<0.00102	<0.00102			
10/15/2018		<0.00102	<0.00102		<0.00102				
10/16/2018						<0.00102			
4/16/2019		<0.00102	<0.00102			<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		
3/24/2020								<0.00102	<0.00102
8/27/2020	<0.00102								
9/8/2020				<0.00102					
9/15/2020	<0.00102			<0.00102					
9/16/2020			<0.00102		0.00482 (J)				
9/17/2020		<0.00102					<0.00102		<0.00102
9/21/2020						<0.00102			
9/22/2020							<0.00102		
2/2/2021					0.00435	0.000389 (J)	0.000228 (J)		<0.00102
2/3/2021	0.000255 (J)	0.000264 (J)	0.000268 (J)	0.000274 (J)					
2/17/2021							<0.00102		
7/27/2021	<0.00102	0.00024 (J)	0.00024 (J)						
8/2/2021				0.00057 (J)					
8/3/2021									0.00024 (J)
8/9/2021					0.00234		0.0004 (J)		
8/10/2021						0.00058 (J)	0.00029 (J)		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	<0.0002			<0.0002	<0.0002				
3/24/2020		0.00277 (J)				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
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
2/8/2021									
2/9/2021				<0.0002	<0.0002				
2/10/2021						0.000252	<0.0002		
6/9/2021							0.00011 (J)		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.0002	
8/2/2016		<0.0002
8/3/2016		
9/19/2016		<0.0002
9/20/2016		
9/21/2016	<0.0002	
10/24/2016	<0.0002	<0.0002
10/25/2016		
12/13/2016	<0.0002	<0.0002
12/14/2016		
2/6/2017		
2/7/2017	<0.0002	
2/8/2017		<0.0002
3/27/2017		
3/28/2017	<0.0002	
3/29/2017		
3/30/2017		<0.0002
4/24/2017		
4/26/2017	<0.0002	<0.0002
6/5/2017		
6/6/2017	<0.0002	<0.0002
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.0002	<0.0002
5/15/2018		
5/16/2018	<0.0002	<0.0002
10/15/2018		
10/16/2018	<0.0002	<0.0002
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.0002	<0.0002
9/23/2019		
9/24/2019	<0.0002	
9/25/2019		<0.0002
3/16/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		<0.0002
9/21/2020		
9/22/2020	<0.0002	<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/8/2021	<0.0002	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.0002
8/9/2021		
8/10/2021	<0.0002	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.0002								
9/21/2016	<0.0002								
10/25/2016	<0.0002								
12/14/2016	<0.0002								
2/8/2017	<0.0002								
3/28/2017	<0.0002								
4/26/2017	<0.0002								
6/6/2017	<0.0002								
2/20/2018	<0.0002								
5/15/2018	<0.0002								
10/16/2018	<0.0002								
2/20/2019			<0.0002						
2/26/2019				<0.0002					
2/27/2019						<0.0002		<0.0002	
3/13/2019							<0.0002		
4/17/2019	<0.0002								
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						
3/18/2020	<0.0002			<0.0002					
3/23/2020		<0.0002							
3/24/2020					<0.0002				
3/25/2020						0.00207 (J)		<0.0002	
5/12/2020							<0.0002		
5/13/2020									
9/17/2020			<0.0002	<0.0002	<0.0002				
9/21/2020						0.00357 (J)			
9/22/2020							<0.0002	<0.0002	
9/23/2020	<0.0002	<0.0002							
2/1/2021									
2/2/2021				0.000192 (J)					
2/3/2021			0.000512					<0.0002	
2/8/2021	<0.0002								
2/9/2021		<0.0002				<0.0002			
2/10/2021					<0.0002				
2/17/2021							<0.0002		<0.0002
7/27/2021			0.00049						
8/2/2021									
8/3/2021				0.00024					<0.0002
8/4/2021	<0.0002							<0.0002	
8/9/2021							<0.0002		
8/10/2021						<0.0002			
8/11/2021		<0.0002							
8/12/2021				<0.0002					

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.0002	<0.0002
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.0002	
9/17/2020		
9/21/2020	<0.0002	
9/22/2020		<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.00016 (J)	
7/27/2021		
8/2/2021	0.00022	<0.0002
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.0002						
3/17/2020		<0.0002		<0.0002	<0.0002				
3/18/2020								<0.0002	
3/24/2020	<0.0002					<0.0002			
3/25/2020									
5/12/2020			<0.0002	<0.0002					
5/13/2020		<0.0002			<0.0002				
9/15/2020		<0.0002							
9/16/2020			<0.0002	<0.0002					
9/17/2020					<0.0002			<0.0002	
9/21/2020	<0.0002								
9/22/2020						<0.0002	0.0027 (J)		
2/2/2021							0.002		
2/3/2021		<0.0002	<0.0002						
2/4/2021				<0.0002					
2/8/2021								0.000585	0.00175
2/9/2021						<0.0002			
2/10/2021	<0.0002								
2/17/2021					0.000148 (J)				
7/27/2021		<0.0002	<0.0002						
7/28/2021				<0.0002					0.00029
8/3/2021								0.00085	
8/4/2021					<0.0002	<0.0002			
8/10/2021	<0.0002						0.0011		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	0.00218 (J)	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.0002	<0.0002
2/2/2021		
2/3/2021	0.000752	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		<0.0002
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.00062	<0.0002
8/10/2021		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.0002				
8/3/2016		<0.0002	<0.0002			0.0026 (J)			
9/20/2016		<0.0002	<0.0002						
9/21/2016					<0.0002	0.00362 (J)			
10/24/2016		<0.0002			<0.0002				
10/25/2016						0.00305 (J)			
10/26/2016			<0.0002						
12/12/2016		<0.0002	0.00212 (J)		<0.0002				
12/13/2016						<0.0002			
2/6/2017		<0.0002	0.00247 (J)		<0.0002	0.00308 (J)			
3/27/2017		<0.0002	0.00224 (J)						
3/28/2017					<0.0002	<0.0002			
4/24/2017		<0.0002	<0.0002		<0.0002	<0.0002			
6/6/2017		<0.0002	0.00222 (J)						
6/7/2017					<0.0002	<0.0002			
2/19/2018		<0.0002	<0.0002		<0.0002	<0.0002			
5/14/2018		<0.0002	<0.0002						
5/15/2018					<0.0002	<0.0002			
10/15/2018		<0.0002	<0.0002		<0.0002				
10/16/2018						<0.0002			
4/16/2019		<0.0002	<0.0002			<0.0002			
4/23/2019					0.00231 (J)				
9/23/2019		<0.0002	<0.0002						
9/24/2019					<0.0002	0.00234 (J)			
3/17/2020		<0.0002	<0.0002		0.00476 (J)				
3/18/2020						<0.0002			
3/23/2020							<0.0002		
3/24/2020								<0.0002	<0.0002
8/27/2020	<0.0002								
9/8/2020				<0.0002					
9/15/2020	<0.0002			<0.0002					
9/16/2020			<0.0002		0.00301 (J)				
9/17/2020		<0.0002						<0.0002	<0.0002
9/21/2020						<0.0002			
9/22/2020							<0.0002		
2/2/2021					0.00248	0.000384	<0.0002		<0.0002
2/3/2021	<0.0002	<0.0002	0.000663	8.19E-05 (J)					
2/17/2021								<0.0002	
7/27/2021	<0.0002	<0.0002	0.00064						
8/2/2021				0.00011 (J)					
8/3/2021									<0.0002
8/9/2021					0.0011			<0.0002	
8/10/2021						0.00059	<0.0002		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 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)							
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)	
3/18/2020	0.605			0.939	0.566 (U)				
3/24/2020		0.877 (U)				0.636			
3/25/2020									0.0656 (U)
5/12/2020								0.0339 (U)	
5/13/2020									
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)
2/8/2021									
2/9/2021				0.442 (U)	0.55 (U)				
2/10/2021						0.285 (U)	0.63 (U)		
6/9/2021							0.61 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	0.697 (U)	
8/2/2016		0.274 (U)
8/3/2016		
9/19/2016		0.0478 (U)
9/20/2016		
9/21/2016	1.79	
10/24/2016	1.53	1.41
10/25/2016		
12/13/2016	0.758	0.733
12/14/2016		
2/6/2017		
2/7/2017	0.473	
2/8/2017		0.0206 (U)
3/27/2017		
3/28/2017	0.0705 (U)	
3/29/2017		
3/30/2017		0.122 (U)
4/24/2017		
4/26/2017	0.238 (U)	0.397 (U)
6/5/2017		
6/6/2017	0.909	0.0873 (U)
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	0.349 (U)	0.562
5/15/2018		
5/16/2018	1.12	1.44
10/15/2018		
10/16/2018	0.856	0.736
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	0.507 (U)	0.0905 (U)
9/23/2019		
9/24/2019	0.664	
9/25/2019		0.537 (U)
3/16/2020		
3/18/2020		
3/24/2020	1.07	
3/25/2020		4
5/12/2020		
5/13/2020		0.289 (U)
9/21/2020		
9/22/2020	2.09	0.712
9/23/2020		
2/1/2021		0.518 (U)
2/2/2021		
2/8/2021	0.947 (U)	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		0.502 (U)
8/9/2021		
8/10/2021	1.42 (U)	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	0.665								
9/21/2016	0.532 (U)								
10/25/2016	0.601								
12/14/2016	1.02								
2/8/2017	-0.074 (U)								
3/28/2017	0.3 (U)								
4/26/2017	0.982 (U)								
6/6/2017	0.312 (U)								
2/20/2018	0.321 (U)								
5/15/2018	1.7								
10/16/2018	0.586								
2/20/2019			0.0759 (U)						
2/26/2019				0.9					
2/27/2019						0.492		0.556	
3/13/2019							0.824		
4/17/2019	0.47 (U)								
9/23/2019			0.00709 (U)			0.404 (U)			
9/24/2019	1.08			1.23				1.09	
9/25/2019							0.648 (U)		
3/16/2020							0.762 (U)		
3/17/2020			0.989						
3/18/2020	0.732			0.788					
3/23/2020		0.982							
3/24/2020					-0.00194 (U)				
3/25/2020						0.707 (U)		0.036 (U)	
5/12/2020							0.425 (U)		
5/13/2020									
9/17/2020			0.66 (U)	0.298 (U)	-0.369 (U)				
9/21/2020						2.05			
9/22/2020							1.02	0.591 (U)	
9/23/2020	0.468 (U)	0.563 (U)							
2/1/2021									
2/2/2021				1.03 (U)					
2/3/2021			0.767 (U)					0.102 (U)	
2/8/2021	0.667 (U)								
2/9/2021		0.867 (U)				0.674 (U)			
2/10/2021					0.422 (U)				
2/17/2021							0.911 (U)		0.331 (U)
7/27/2021			0.124 (U)						
8/2/2021									
8/3/2021				1.3 (U)					0.978 (U)
8/4/2021	0.337 (U)							1.02 (U)	
8/9/2021							0.706 (U)		
8/10/2021						1.05 (U)			
8/11/2021		0.782 (U)							
8/12/2021					0.129 (U)				

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	2.26	0.0549 (U)
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	0.604	
9/17/2020		
9/21/2020	1.1	
9/22/2020		0.912
9/23/2020		
2/1/2021		0.189 (U)
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.902 (U)	
7/27/2021		
8/2/2021	1.8	1.48 (U)
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			-0.085 (U)						
3/17/2020		2.14		7.32	4.33				
3/18/2020								0.64	
3/24/2020	0.313 (U)					0.862			
3/25/2020									
5/12/2020			0.345 (U)	1.02					
5/13/2020		0.415 (U)				-0.225 (U)			
9/15/2020		-0.106 (U)							
9/16/2020			0.286 (U)	0.435 (U)					
9/17/2020						-0.125 (U)		0.14 (U)	
9/21/2020	0.484 (U)								
9/22/2020						1.1	1.91		
2/2/2021							0.369 (U)		
2/3/2021		0.313 (U)	0.485 (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	0.546 (U)								
2/17/2021					0.322 (U)				
7/27/2021		0.408 (U)	0.732 (U)						
7/28/2021				0.0525 (U)					0.759 (U)
8/3/2021								0.453 (U)	
8/4/2021					1.13	0.844 (U)			
8/10/2021	0.445 (U)						0.91 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	0.0821 (U)	
3/25/2020		0.678 (U)
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	0.36 (U)	0.0466 (U)
2/2/2021		
2/3/2021	0.475 (U)	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.629 (U)
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.186 (U)	0.949 (U)
8/10/2021		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/3/2022 11:25 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					0.87				
8/3/2016		0.42 (U)	1.38			0.299 (U)			
9/20/2016		1.13	1.3						
9/21/2016					0.107 (U)	0.835			
10/24/2016		0.327 (U)			0.337 (U)				
10/25/2016						0.0629 (U)			
10/26/2016			0.721 (U)						
12/12/2016		1.26	1.36		0.803				
12/13/2016						0.547			
2/6/2017		0.532	0.702		-0.0165 (U)	0.251 (U)			
3/27/2017		0.334 (U)	0.325 (U)						
3/28/2017					0.00697 (U)	-0.109 (U)			
4/24/2017		0.492	0.436 (U)		0.672	0.293 (U)			
6/6/2017		0.156 (U)	0.592						
6/7/2017					0.096 (U)	0.529			
2/19/2018		0.283 (U)	0.776		0.207 (U)	0.497			
5/14/2018		0.083 (U)	-0.169 (U)						
5/15/2018					0.0311 (U)	-0.601 (U)			
10/15/2018		0.656	0.792		0.309 (U)				
10/16/2018						0.2 (U)			
4/16/2019		0.528	1.11			0.733			
4/23/2019					0.894				
9/23/2019		0.677	1.06						
9/24/2019					0.618 (U)	0.753			
3/17/2020		0.629	0.351 (U)		1.2				
3/18/2020						0.465 (U)			
3/23/2020							0.156 (U)		
3/24/2020								0.847	0.878
8/27/2020	0.798								
9/8/2020				-0.0377 (U)					
9/15/2020	0.311 (U)			1.25					
9/16/2020			1.05		1.74				
9/17/2020		0.32 (U)						0.438 (U)	0.896
9/21/2020						1.25			
9/22/2020							0.536 (U)		
2/2/2021					0.373 (U)	0.223 (U)	0.154 (U)		1.01 (U)
2/3/2021	0.145 (U)	0.647 (U)	0.489 (U)	0.2 (U)					
2/17/2021								0.753 (U)	
7/27/2021	0.48 (U)	0.919 (U)	0.87 (U)						
8/2/2021				1.53					
8/3/2021									0.195 (U)
8/9/2021					1.28 (D)			1.47	
8/10/2021						0.77 (U)	0.895 (U)		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 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	
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							
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	
3/18/2020	0.122			0.647	0.243				
3/24/2020		0.155				0.109			
3/25/2020									0.243
5/12/2020								0.263	
5/13/2020									
9/21/2020					0.372		0.572	0.371	
9/22/2020						0.123			
9/23/2020	0.12	0.176		0.452					0.278
2/1/2021	0.126	0.169							
2/2/2021								0.276	0.244
2/8/2021									
2/9/2021				0.591	0.329				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	0.385	
8/2/2016		1.76
8/3/2016		
9/19/2016		1.55
9/20/2016		
9/21/2016	0.303	
10/24/2016	0.24 (J)	1.29
10/25/2016		
12/13/2016	0.188 (J)	1.19
12/14/2016		
2/6/2017		
2/7/2017	0.38	
2/8/2017		1.6
3/27/2017		
3/28/2017	0.32	
3/29/2017		
3/30/2017		1.5
4/24/2017		
4/26/2017	0.31	1.4
6/5/2017		
6/6/2017	0.31	1.3
6/7/2017		
8/21/2017		1.4
8/22/2017	0.35	
2/19/2018		
2/20/2018		
2/21/2018	0.39	1.1
5/15/2018		
5/16/2018	0.36	1.1
10/15/2018		
10/16/2018	0.37	1
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	0.27	0.868
9/23/2019		
9/24/2019	0.307	
9/25/2019		0.86
3/16/2020		
3/18/2020		
3/24/2020	0.327	
3/25/2020		0.855
5/12/2020		
5/13/2020		0.777
9/21/2020		
9/22/2020	0.339	0.921
9/23/2020		
2/1/2021		0.865
2/2/2021		
2/8/2021	0.319	
2/9/2021		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
2/10/2021		
6/9/2021		
8/2/2021		
8/3/2021		
8/4/2021		0.932
8/9/2021		
8/10/2021	0.283	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	0.282 (J)								
9/21/2016	0.231 (J)								
10/25/2016	0.137 (J)								
12/14/2016	0.131 (J)								
2/8/2017	0.25								
3/28/2017	0.27								
4/26/2017	0.24								
6/6/2017	0.25								
8/23/2017	0.3								
2/20/2018	0.23								
5/15/2018	0.24								
10/16/2018	0.25								
2/20/2019			0.188						
2/26/2019				0.19					
2/27/2019						0.14		0.218	
3/13/2019							0.187		
4/17/2019	0.272								
9/23/2019			0.144			0.146			
9/24/2019	0.209			0.201				0.183	
9/25/2019							0.172		
3/16/2020							0.183		
3/17/2020			0.241						
3/18/2020	0.234			0.206					
3/23/2020		0.494							
3/24/2020					1.77				
3/25/2020						0.131		0.194	
5/12/2020							0.195		
5/13/2020									
9/17/2020			0.117	0.217	1.93				
9/21/2020						0.151			
9/22/2020							0.181	0.198	
9/23/2020	0.208	0.641							
2/1/2021									
2/2/2021				0.209					
2/3/2021			0.156					0.267	
2/8/2021	0.203								
2/9/2021		0.546				0.112			
2/10/2021					1.81				
2/17/2021							0.18		0.1
7/27/2021			0.13						
8/2/2021									
8/3/2021				0.208					0.102
8/4/2021	0.24							0.353	
8/9/2021							0.204		
8/10/2021						0.152			
8/11/2021		0.41							
8/12/2021					2.01				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
8/23/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	0.634	0.15
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	0.833	
9/17/2020		
9/21/2020	0.872	
9/22/2020		0.148
9/23/2020		
2/1/2021		0.176
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.884	
7/27/2021		
8/2/2021	1.49	0.191
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			0.338						
3/17/2020		0.202		0.166	0.214				
3/18/2020								0.165	
3/24/2020	0.18					0.291			
3/25/2020									
5/12/2020			0.37	0.167					
5/13/2020		0.191			0.224				
9/15/2020		0.188							
9/16/2020			0.364	0.162					
9/17/2020					0.209			0.16	
9/21/2020	0.202								
9/22/2020						0.28	0.114		
2/2/2021							0.123		
2/3/2021		0.178	0.298						
2/4/2021				0.152					
2/8/2021								0.138	0.152
2/9/2021						0.243			
2/10/2021	0.134								
2/17/2021					0.22				
7/27/2021		0.214	0.408						
7/28/2021				0.207					0.172
8/3/2021								0.15	
8/4/2021					0.31	0.305			
8/10/2021	0.218						0.113		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	0.13	
3/25/2020		0.204
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	0.121	0.216
2/2/2021		
2/3/2021	0.131	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.174
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.203	0.289
8/10/2021		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					0.098 (J)				
8/3/2016		0.127 (J)	0.099 (J)			0.125 (J)			
9/20/2016		0.087 (J)	0.074 (J)						
9/21/2016					0.061 (J)	0.098 (J)			
10/24/2016		0.019 (J)			<0.3				
10/25/2016						0.025 (J)			
10/26/2016			0.032 (J)						
12/12/2016		0.043 (J)	0.034 (J)		0.01 (J)				
12/13/2016						0.045 (J)			
2/6/2017		0.11	0.06 (J)		0.07 (J)	0.1			
3/27/2017		0.12	0.07 (J)						
3/28/2017					0.07 (J)	0.08 (J)			
4/24/2017		0.11	0.08 (J)		0.08 (J)	0.09 (J)			
6/6/2017		0.12	0.09 (J)						
6/7/2017					0.09 (J)	0.08 (J)			
8/21/2017		0.15	0.1		0.09 (J)	0.08 (J)			
2/19/2018		0.13	0.1		0.09 (J)	0.08 (J)			
5/14/2018		0.13	0.13						
5/15/2018					0.09 (J)	0.1			
10/15/2018		0.16	0.14		0.11				
10/16/2018						0.09 (J)			
4/16/2019		0.156	0.147			0.143			
4/23/2019					0.111				
9/23/2019		0.132	0.142						
9/24/2019					0.106	0.128			
3/17/2020		0.132	0.231		0.107				
3/18/2020						0.108			
3/23/2020							0.187		
3/24/2020								0.228	0.387
8/27/2020	0.174								
9/8/2020				4.46					
9/15/2020	0.221			4.59					
9/16/2020			0.308		0.126				
9/17/2020		0.133						0.237	0.402
9/21/2020						0.125			
9/22/2020							0.174		
2/2/2021					0.124	0.114	0.183		0.389
2/3/2021	0.181	0.135	0.195	4.28					
2/17/2021								0.219	
7/27/2021	0.254	0.127	0.2						
8/2/2021				4.45					
8/3/2021									0.419
8/9/2021					0.11			0.235	
8/10/2021						0.0924 (J)	0.166		

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	<0.0002			<0.0002	<0.0002				
3/24/2020		0.00279 (J)				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
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
2/8/2021									
2/9/2021				8.74E-05 (J)	<0.0002				
2/10/2021						0.000873	0.000105 (J)		
6/9/2021							0.0004		

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.0002	
8/2/2016		<0.0002
8/3/2016		
9/19/2016		<0.0002
9/20/2016		
9/21/2016	<0.0002	
10/24/2016	<0.0002	<0.0002
10/25/2016		
12/13/2016	<0.0002	<0.0002
12/14/2016		
2/6/2017		
2/7/2017	<0.0002	
2/8/2017		<0.0002
3/27/2017		
3/28/2017	<0.0002	
3/29/2017		
3/30/2017		<0.0002
4/24/2017		
4/26/2017	<0.0002	<0.0002
6/5/2017		
6/6/2017	<0.0002	<0.0002
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.0002	<0.0002
5/15/2018		
5/16/2018	<0.0002	<0.0002
10/15/2018		
10/16/2018	<0.0002	<0.0002
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.0002	<0.0002
9/23/2019		
9/24/2019	<0.0002	
9/25/2019		<0.0002
3/16/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		<0.0002
9/21/2020		
9/22/2020	<0.0002	<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/8/2021	<0.0002	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.0002
8/9/2021		
8/10/2021	<0.0002	

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.0002								
9/21/2016	<0.0002								
10/25/2016	<0.0002								
12/14/2016	<0.0002								
2/8/2017	<0.0002								
3/28/2017	<0.0002								
4/26/2017	<0.0002								
6/6/2017	<0.0002								
2/20/2018	<0.0002								
5/15/2018	<0.0002								
10/16/2018	<0.0002								
2/20/2019			<0.0002						
2/26/2019				<0.0002					
2/27/2019						<0.0002		<0.0002	
3/13/2019							0.00208 (J)		
4/17/2019	<0.0002								
9/23/2019			<0.0002			0.00109 (J)			
9/24/2019	<0.0002			<0.0002				<0.0002	
9/25/2019							<0.0002		
3/16/2020							<0.0002		
3/17/2020			<0.0002						
3/18/2020	<0.0002			<0.0002					
3/23/2020		<0.0002							
3/24/2020					<0.0002				
3/25/2020						0.0019 (J)		<0.0002	
5/12/2020							<0.0002		
5/13/2020									
9/17/2020			<0.0002	<0.0002	<0.0002				
9/21/2020						0.00309 (J)			
9/22/2020							<0.0002	<0.0002	
9/23/2020	<0.0002	<0.0002							
2/1/2021									
2/2/2021				<0.0002					
2/3/2021			<0.0002					<0.0002	
2/8/2021	<0.0002								
2/9/2021		<0.0002				<0.0002			
2/10/2021					<0.0002				
2/17/2021							<0.0002		<0.0002
7/27/2021			<0.0002						
8/2/2021									
8/3/2021				<0.0002					<0.0002
8/4/2021	<0.0002							<0.0002	
8/9/2021							<0.0002		
8/10/2021						<0.0002			
8/11/2021		<0.0002							
8/12/2021				<0.0002					

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.0002	<0.0002
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.0002	
9/17/2020		
9/21/2020	<0.0002	
9/22/2020		<0.0002
9/23/2020		
2/1/2021		0.000102 (J)
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.00028	
7/27/2021		
8/2/2021	0.00017 (J)	<0.0002
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.0002						
3/17/2020		<0.0002		<0.0002	<0.0002				
3/18/2020								<0.0002	
3/24/2020	<0.0002					<0.0002			
3/25/2020									
5/12/2020			<0.0002	<0.0002					
5/13/2020		<0.0002			<0.0002				
9/15/2020		<0.0002							
9/16/2020			<0.0002	<0.0002					
9/17/2020					<0.0002			<0.0002	
9/21/2020	<0.0002								
9/22/2020						<0.0002	<0.0002		
2/2/2021							<0.0002		
2/3/2021		<0.0002	<0.0002						
2/4/2021				<0.0002					
2/8/2021								<0.0002	<0.0002
2/9/2021						8.23E-05 (J)			
2/10/2021	<0.0002								
2/17/2021					8.8E-05 (J)				
7/27/2021		<0.0002	<0.0002						
7/28/2021				<0.0002					<0.0002
8/3/2021								<0.0002	
8/4/2021					<0.0002	<0.0002			
8/10/2021	<0.0002						<0.0002		

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.0002	<0.0002
2/2/2021		
2/3/2021	<0.0002	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.000328
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	<0.0002	0.00027
8/10/2021		

Time Series

Constituent: Lead (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					0.00279 (J)				
8/3/2016		<0.0002	<0.0002			<0.0002			
9/20/2016		<0.0002	<0.0002						
9/21/2016					0.0024 (J)	<0.0002			
10/24/2016		<0.0002			<0.0002				
10/25/2016						<0.0002			
10/26/2016			<0.0002						
12/12/2016		<0.0002	<0.0002		<0.0002				
12/13/2016						<0.0002			
2/6/2017		<0.0002	<0.0002		<0.0002	<0.0002			
3/27/2017		<0.0002	<0.0002						
3/28/2017					<0.0002	<0.0002			
4/24/2017		<0.0002	<0.0002		<0.0002	<0.0002			
6/6/2017		<0.0002	<0.0002						
6/7/2017					<0.0002	<0.0002			
2/19/2018		<0.0002	<0.0002		<0.0002	<0.0002			
5/14/2018		<0.0002	<0.0002						
5/15/2018					<0.0002	<0.0002			
10/15/2018		<0.0002	<0.0002		<0.0002				
10/16/2018						<0.0002			
4/16/2019		<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			
3/17/2020		<0.0002	<0.0002		0.00386 (J)				
3/18/2020						<0.0002			
3/23/2020							<0.0002		
3/24/2020								<0.0002	<0.0002
8/27/2020	<0.0002								
9/8/2020				<0.0002					
9/15/2020	<0.0002			<0.0002					
9/16/2020			<0.0002		0.00295 (J)				
9/17/2020		<0.0002					<0.0002		<0.0002
9/21/2020						<0.0002			
9/22/2020							<0.0002		
2/2/2021					0.00243	8.09E-05 (J)	<0.0002		<0.0002
2/3/2021	<0.0002	<0.0002	<0.0002	0.000155 (J)					
2/17/2021								0.000148 (J)	
7/27/2021	<0.0002	<0.0002	8E-05 (J)						
8/2/2021				0.00023					
8/3/2021									<0.0002
8/9/2021					0.00119			0.00024	
8/10/2021						0.00015 (J)	<0.0002		

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	0.0297			0.378	0.208				
3/24/2020		0.0462				0.035			
3/25/2020									0.0646
5/12/2020								0.0602	
5/13/2020									
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
2/8/2021									
2/9/2021				0.493	0.122				
2/10/2021						0.0376	0.103		
6/9/2021							0.0574		

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	0.0252 (J)	
8/2/2016		0.0495 (J)
8/3/2016		
9/19/2016		0.049 (J)
9/20/2016		
9/21/2016	0.0223 (J)	
10/24/2016	0.0247 (J)	0.0488 (J)
10/25/2016		
12/13/2016	0.0312 (J)	0.0483 (J)
12/14/2016		
2/6/2017		
2/7/2017	0.0406 (J)	
2/8/2017		0.0644
3/27/2017		
3/28/2017	0.0309 (J)	
3/29/2017		
3/30/2017		0.0597
4/24/2017		
4/26/2017	0.0267 (J)	0.0459 (J)
6/5/2017		
6/6/2017	0.0311 (J)	0.0491 (J)
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	0.0472 (J)	0.0534
5/15/2018		
5/16/2018	0.0391 (J)	0.0451 (J)
10/15/2018		
10/16/2018	0.0406	0.0511
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	0.0429	0.0421
9/23/2019		
9/24/2019	0.0392	
9/25/2019		0.0457
3/16/2020		
3/18/2020		
3/24/2020	0.0417	
3/25/2020		0.0434
5/12/2020		
5/13/2020		0.0409
9/21/2020		
9/22/2020	0.0435	0.0395
9/23/2020		
2/1/2021		0.0445
2/2/2021		
2/8/2021	0.0368	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		0.0443
8/9/2021		
8/10/2021	0.0305	

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	0.145								
9/21/2016	0.153								
10/25/2016	0.171								
12/14/2016	0.182								
2/8/2017	0.178								
3/28/2017	0.161								
4/26/2017	0.126								
6/6/2017	0.135								
2/20/2018	0.158								
5/15/2018	0.174								
10/16/2018	0.219								
2/20/2019			0.031						
2/26/2019				0.0282					
2/27/2019						0.0966		0.07	
3/13/2019							0.0625		
4/17/2019	0.312								
9/23/2019			0.0324			0.0945			
9/24/2019	0.276			0.0275				0.0509	
9/25/2019							0.0619		
3/16/2020							0.0627		
3/17/2020			0.0327						
3/18/2020	0.379			0.0264					
3/23/2020		0.146							
3/24/2020					0.0461				
3/25/2020						0.0946		0.0528	
5/12/2020							0.0569		
5/13/2020									
9/17/2020			0.0333	0.0237	0.0449				
9/21/2020						0.0958			
9/22/2020							0.0574	0.0586	
9/23/2020	0.179	0.137							
2/1/2021									
2/2/2021				0.0247					
2/3/2021			0.0319					0.0915	
2/8/2021	0.239								
2/9/2021		0.124				0.0928			
2/10/2021					0.0579				
2/17/2021							0.0686		0.0995
7/27/2021			0.0309						
8/2/2021									
8/3/2021				0.0249					0.088
8/4/2021	0.213							0.0809	
8/9/2021							0.0633		
8/10/2021						0.0932			
8/11/2021		0.048							
8/12/2021				0.0558					

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	0.0528	0.0347
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	0.0536	
9/17/2020		
9/21/2020	0.0494	
9/22/2020		0.0357
9/23/2020		
2/1/2021		0.0417
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.0548	
7/27/2021		
8/2/2021	0.0582	0.0411
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			0.205						
3/17/2020		0.0516		0.074	0.0342				
3/18/2020								0.311	
3/24/2020	0.0428					0.0632			
3/25/2020									
5/12/2020			0.18	0.0693					
5/13/2020		0.0455			0.0337				
9/15/2020		0.0479							
9/16/2020			0.18	0.0685					
9/17/2020					0.035			0.341	
9/21/2020	0.0421								
9/22/2020						0.0591	0.0405		
2/2/2021							0.0571		
2/3/2021		0.0534	0.249						
2/4/2021				0.0734					
2/8/2021								0.356	0.14
2/9/2021						0.0676			
2/10/2021	0.0471								
2/17/2021					0.039				
7/27/2021		0.0563	0.207						
7/28/2021				0.0722					0.178
8/3/2021								0.369	
8/4/2021					0.0455	0.0672			
8/10/2021	0.0466						0.0567		

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	0.0346	
3/25/2020		0.0505
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	0.0333	0.0587
2/2/2021		
2/3/2021	0.0356	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.0723
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.0348	0.0706
8/10/2021		

Time Series

Constituent: Lithium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					0.144				
8/3/2016		0.204	<0.02			<0.02			
9/20/2016		0.223	<0.02						
9/21/2016					0.136	<0.02			
10/24/2016		0.243			0.135				
10/25/2016						<0.02			
10/26/2016			0.0199 (J)						
12/12/2016		0.22	<0.02		0.146				
12/13/2016						<0.02			
2/6/2017		0.247	<0.02		0.182	<0.02			
3/27/2017		0.263	<0.02						
3/28/2017					0.175	<0.02			
4/24/2017		0.237	<0.02		0.143	<0.02			
6/6/2017		0.259	<0.02						
6/7/2017					0.152	<0.02			
2/19/2018		0.213	<0.02		0.143	<0.02			
5/14/2018		0.239	0.0238 (J)						
5/15/2018					0.151	<0.02			
10/15/2018		0.236	0.03		0.155				
10/16/2018						<0.02			
4/16/2019		0.267	<0.02			<0.02			
4/23/2019					0.144				
9/23/2019		0.264	0.0105 (J)						
9/24/2019					0.156	<0.02			
3/17/2020		0.292	0.0695		0.161				
3/18/2020						<0.02			
3/23/2020							0.0309		
3/24/2020								0.0714	0.0734
8/27/2020	0.0411								
9/8/2020				0.138					
9/15/2020	0.0494			0.136					
9/16/2020			0.066		0.16				
9/17/2020		0.299						0.073	0.0862
9/21/2020						<0.02			
9/22/2020							0.0293		
2/2/2021					0.183	0.00796 (J)	0.0299		0.0743
2/3/2021	0.063	0.312	0.0455	0.156					
2/17/2021								0.0762	
7/27/2021	0.0567	0.326	0.0576						
8/2/2021				0.152					
8/3/2021									0.0685
8/9/2021					0.205			0.0657	
8/10/2021						0.00832 (J)	0.031		

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	<0.0005			<0.0005	<0.0005				
3/24/2020		<0.0005				<0.0005			
3/25/2020									<0.0005
5/12/2020								<0.0005	
5/13/2020									
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
2/8/2021									
2/9/2021				<0.0005	<0.0005				
2/10/2021						<0.0005	<0.0005		
6/9/2021							<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.0005	
8/2/2016		<0.0005
8/3/2016		
9/19/2016		<0.0005
9/20/2016		
9/21/2016	<0.0005	
10/24/2016	<0.0005	<0.0005
10/25/2016		
12/13/2016	<0.0005	<0.0005
12/14/2016		
2/6/2017		
2/7/2017	<0.0005	
2/8/2017		<0.0005
3/27/2017		
3/28/2017	<0.0005	
3/29/2017		
3/30/2017		<0.0005
4/24/2017		
4/26/2017	<0.0005	<0.0005
6/5/2017		
6/6/2017	<0.0005	<0.0005
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.0005	<0.0005
5/15/2018		
5/16/2018	<0.0005	<0.0005
10/15/2018		
10/16/2018	<0.0005	<0.0005
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.0005	<0.0005
9/23/2019		
9/24/2019	<0.0005	
9/25/2019		<0.0005
3/16/2020		
3/18/2020		
3/24/2020	<0.0005	
3/25/2020		<0.0005
5/12/2020		
5/13/2020		<0.0005
9/21/2020		
9/22/2020	<0.0005	<0.0005
9/23/2020		
2/1/2021		<0.0005
2/2/2021		
2/8/2021	<0.0005	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.0005
8/9/2021		
8/10/2021	<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.0005								
9/21/2016	<0.0005								
10/25/2016	<0.0005								
12/14/2016	<0.0005								
2/8/2017	<0.0005								
3/28/2017	<0.0005								
4/26/2017	<0.0005								
6/6/2017	<0.0005								
2/20/2018	<0.0005								
5/15/2018	<0.0005								
10/16/2018	<0.0005								
2/20/2019			<0.0005						
2/26/2019				<0.0005					
2/27/2019						<0.0005		<0.0005	
3/13/2019							<0.0005		
4/17/2019	<0.0005								
9/23/2019			<0.0005			<0.0005			
9/24/2019	<0.0005			<0.0005					<0.0005
9/25/2019							<0.0005		
3/16/2020							<0.0005		
3/17/2020			<0.0005						
3/18/2020	<0.0005			<0.0005					
3/23/2020		<0.0005							
3/24/2020					<0.0005				
3/25/2020						<0.0005		<0.0005	
5/12/2020							<0.0005		
5/13/2020									
9/17/2020			<0.0005	<0.0005	<0.0005				
9/21/2020						<0.0005			
9/22/2020							<0.0005	<0.0005	
9/23/2020	<0.0005	<0.0005							
2/1/2021									
2/2/2021				<0.0005					
2/3/2021			<0.0005					<0.0005	
2/8/2021	<0.0005								
2/9/2021		<0.0005				<0.0005			
2/10/2021					<0.0005				
2/17/2021							<0.0005		<0.0005
7/27/2021			<0.0005						
8/2/2021									
8/3/2021				<0.0005					<0.0005
8/4/2021	<0.0005							<0.0005	
8/9/2021							<0.0005		
8/10/2021						<0.0005			
8/11/2021		<0.0005							
8/12/2021				<0.0005					

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.0005	<0.0005
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.0005	
9/17/2020		
9/21/2020	<0.0005	
9/22/2020		<0.0005
9/23/2020		
2/1/2021		<0.0005
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	<0.0005	
7/27/2021		
8/2/2021	<0.0005	<0.0005
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.0005						
3/17/2020		<0.0005		<0.0005	<0.0005				
3/18/2020								<0.0005	
3/24/2020	<0.0005					<0.0005			
3/25/2020									
5/12/2020			<0.0005	<0.0005					
5/13/2020		<0.0005			<0.0005				
9/15/2020		<0.0005							
9/16/2020			<0.0005	<0.0005					
9/17/2020					<0.0005			<0.0005	
9/21/2020	<0.0005								
9/22/2020						<0.0005	<0.0005		
2/2/2021							<0.0005		
2/3/2021		<0.0005	<0.0005						
2/4/2021				<0.0005					
2/8/2021								<0.0005	<0.0005
2/9/2021						<0.0005			
2/10/2021	<0.0005								
2/17/2021					<0.0005				
7/27/2021		<0.0005	<0.0005						
7/28/2021				<0.0005					<0.0005
8/3/2021								<0.0005	
8/4/2021					<0.0005	<0.0005			
8/10/2021	<0.0005						<0.0005		

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.0005	
3/25/2020		<0.0005
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.0005	<0.0005
2/2/2021		
2/3/2021	<0.0005	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		<0.0005
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	<0.0005	<0.0005
8/10/2021		

Time Series

Constituent: Mercury (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.0005				
8/3/2016		<0.0005	<0.0005			<0.0005			
9/20/2016		<0.0005	<0.0005						
9/21/2016					<0.0005	<0.0005			
10/24/2016		<0.0005			<0.0005				
10/25/2016						<0.0005			
10/26/2016			<0.0005						
12/12/2016		<0.0005	<0.0005		<0.0005				
12/13/2016								<0.0005	
2/6/2017		<0.0005	<0.0005		<0.0005	<0.0005			
3/27/2017		<0.0005	<0.0005						
3/28/2017					<0.0005	<0.0005			
4/24/2017		<0.0005	<0.0005		<0.0005	<0.0005			
6/6/2017		<0.0005	<0.0005						
6/7/2017					<0.0005	<0.0005			
2/19/2018		<0.0005	<0.0005		<0.0005	<0.0005			
5/14/2018		<0.0005	<0.0005						
5/15/2018					<0.0005	<0.0005			
10/15/2018		<0.0005	<0.0005		<0.0005				
10/16/2018								<0.0005	
4/16/2019		<0.0005	<0.0005			<0.0005			
4/23/2019					<0.0005				
9/23/2019		<0.0005	<0.0005						
9/24/2019					<0.0005	<0.0005			
3/17/2020		<0.0005	<0.0005		<0.0005				
3/18/2020						<0.0005			
3/23/2020							<0.0005		
3/24/2020								<0.0005	<0.0005
8/27/2020	<0.0005								
9/8/2020				<0.0005					
9/15/2020	<0.0005			<0.0005					
9/16/2020			<0.0005		<0.0005				
9/17/2020		<0.0005						<0.0005	<0.0005
9/21/2020						<0.0005			
9/22/2020							<0.0005		
2/2/2021					<0.0005	<0.0005	<0.0005		<0.0005
2/3/2021	<0.0005	<0.0005	<0.0005	<0.0005					
2/17/2021								<0.0005	
7/27/2021	<0.0005	<0.0005	<0.0005						
8/2/2021				<0.0005					
8/3/2021									<0.0005
8/9/2021					<0.0005			<0.0005	
8/10/2021						<0.0005	<0.0005		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 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)							
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)	
3/18/2020	0.00444 (J)			0.0673	0.0327				
3/24/2020		0.00454 (J)				<0.0002			
3/25/2020									0.00508 (J)
5/12/2020								0.00436 (J)	
5/13/2020									
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
2/8/2021									
2/9/2021				0.0644	0.0522				
2/10/2021						0.00014 (J)	0.0402		
6/9/2021							0.0217		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	0.00752 (J)	
8/2/2016		<0.0002
8/3/2016		
9/19/2016		<0.0002
9/20/2016		
9/21/2016	0.0117	
10/24/2016	0.0198	<0.0002
10/25/2016		
12/13/2016	0.00703 (J)	<0.0002
12/14/2016		
2/6/2017		
2/7/2017	0.0103	
2/8/2017		0.00359 (J)
3/27/2017		
3/28/2017	0.00599 (J)	
3/29/2017		
3/30/2017		0.00485 (J)
4/24/2017		
4/26/2017	0.00845 (J)	0.00444 (J)
6/5/2017		
6/6/2017	0.00624 (J)	0.00489 (J)
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	0.00903 (J)	0.0112
5/15/2018		
5/16/2018	0.00515 (J)	0.00547 (J)
10/15/2018		
10/16/2018	0.00593 (J)	0.00919 (J)
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	0.00703 (J)	0.00293 (J)
9/23/2019		
9/24/2019	0.00562 (J)	
9/25/2019		0.00803 (J)
3/16/2020		
3/18/2020		
3/24/2020	0.00605 (J)	
3/25/2020		0.00343 (J)
5/12/2020		
5/13/2020		0.00224 (J)
9/21/2020		
9/22/2020	0.0063 (J)	0.00308 (J)
9/23/2020		
2/1/2021		0.00427
2/2/2021		
2/8/2021	0.00366	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		0.00168
8/9/2021		
8/10/2021	0.00269	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	0.0365								
9/21/2016	0.0362								
10/25/2016	0.0326								
12/14/2016	0.0345								
2/8/2017	0.0419								
3/28/2017	0.0523								
4/26/2017	0.0502								
6/6/2017	0.05								
2/20/2018	0.0966								
5/15/2018	0.0687								
10/16/2018	0.061								
2/20/2019			<0.0002						
2/26/2019				<0.0002					
2/27/2019						0.00286 (J)		<0.0002	
3/13/2019							0.00555 (J)		
4/17/2019	0.0885								
9/23/2019			<0.0002			<0.0002			
9/24/2019	0.0613			<0.0002				0.00424 (J)	
9/25/2019							0.00338 (J)		
3/16/2020							0.00463 (J)		
3/17/2020			<0.0002						
3/18/2020	0.102			<0.0002					
3/23/2020		0.117							
3/24/2020					0.0176				
3/25/2020						<0.0002		0.0025 (J)	
5/12/2020							0.00644 (J)		
5/13/2020									
9/17/2020			<0.0002	<0.0002	0.0182				
9/21/2020						<0.0002			
9/22/2020							0.00616 (J)	0.0281	
9/23/2020	0.0404	0.12							
2/1/2021									
2/2/2021				0.000563					
2/3/2021			0.000902					0.0623	
2/8/2021	0.0396								
2/9/2021		0.0983				0.000207			
2/10/2021					0.0158				
2/17/2021							0.00454		0.0113
7/27/2021			0.0009						
8/2/2021									
8/3/2021				0.00052					0.00977
8/4/2021	0.0367							0.0377	
8/9/2021							0.00412		
8/10/2021						0.00016 (J)			
8/11/2021		0.0394							
8/12/2021				0.0125					

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	0.00603 (J)	0.0102
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	0.00519 (J)	
9/17/2020		
9/21/2020	0.00254 (J)	
9/22/2020		0.00438 (J)
9/23/2020		
2/1/2021		0.00447
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	0.0019	
7/27/2021		
8/2/2021	0.00394	0.00486
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			0.00386 (J)						
3/17/2020		<0.0002		0.00222 (J)	0.00571 (J)				
3/18/2020								0.0158	
3/24/2020	0.0826					0.00445 (J)			
3/25/2020									
5/12/2020			0.0088 (J)	<0.0002					
5/13/2020		0.00626 (J)			0.00475 (J)				
9/15/2020		0.00496 (J)							
9/16/2020			0.00598 (J)	<0.0002					
9/17/2020					0.0105			0.026	
9/21/2020	0.0896								
9/22/2020						0.00423 (J)	0.00293 (J)		
2/2/2021							0.00257		
2/3/2021		0.00346	0.00753						
2/4/2021				0.00273					
2/8/2021								0.0284	0.00288
2/9/2021						0.00267			
2/10/2021	0.0889								
2/17/2021					0.0054				
7/27/2021		0.00574	0.0143						
7/28/2021				0.0017					0.0044
8/3/2021								0.0286	
8/4/2021					0.017	0.00377			
8/10/2021	0.0858						0.00171		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.0002	<0.0002
2/2/2021		
2/3/2021	0.00174	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		0.00292
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	0.00169	0.00385
8/10/2021		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 1/3/2022 11:25 PM

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					0.146				
8/3/2016		0.00372 (J)	<0.0002			<0.0002			
9/20/2016		0.00481 (J)	0.00202 (J)						
9/21/2016					0.146	<0.0002			
10/24/2016		0.00496 (J)			0.136				
10/25/2016						<0.0002			
10/26/2016			0.00599 (J)						
12/12/2016		0.00467 (J)	0.00214 (J)		0.14				
12/13/2016						<0.0002			
2/6/2017		0.00468 (J)	<0.0002		0.15	<0.0002			
3/27/2017		0.00548 (J)	<0.0002						
3/28/2017					0.159	<0.0002			
4/24/2017		0.00606 (J)	<0.0002		0.16	<0.0002			
6/6/2017		0.00545 (J)	<0.0002						
6/7/2017					0.15	<0.0002			
2/19/2018		0.00537 (J)	<0.0002		0.172	<0.0002			
5/14/2018		0.00564 (J)	0.00526 (J)						
5/15/2018					0.177	<0.0002			
10/15/2018		0.00538 (J)	0.00644 (J)		0.168				
10/16/2018						<0.0002			
4/16/2019		0.00747 (J)	0.00246 (J)			<0.0002			
4/23/2019					0.185				
9/23/2019		0.00758 (J)	0.00412 (J)						
9/24/2019					0.178	<0.0002			
3/17/2020		0.00959 (J)	0.0272		0.193				
3/18/2020						<0.0002			
3/23/2020							<0.0002		
3/24/2020								<0.0002	0.00333 (J)
8/27/2020	0.0071 (J)								
9/8/2020				0.00317 (J)					
9/15/2020	0.00858 (J)			0.00256 (J)					
9/16/2020			0.0427		0.215				
9/17/2020		0.00924 (J)						0.00241 (J)	0.00357 (J)
9/21/2020						<0.0002			
9/22/2020							<0.0002		
2/2/2021					0.202	<0.0002	0.000538		0.00367
2/3/2021	0.00429	0.0095	0.0218	0.00284					
2/17/2021								0.00132	
7/27/2021	0.0035	0.0101	0.0452						
8/2/2021				0.00438					
8/3/2021									0.00352
8/9/2021					0.207			0.00221	
8/10/2021						<0.0002	0.00269		

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 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	
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							
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	
3/18/2020	7.56			11.47	10.89				
3/24/2020		7.8				7.46			
3/25/2020									7.63
5/12/2020								8.42	
5/13/2020									
9/21/2020					10.07		9.99	8.22	
9/22/2020						7.52			
9/23/2020	8.3	8.84		11.89					7.53
2/1/2021	7.55	7.3							
2/2/2021								8.43	7.58
2/8/2021									
2/9/2021				11.88	9.55				

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	8.05	
8/2/2016		9.18
8/3/2016		
9/19/2016		9.18
9/20/2016		
9/21/2016	8.14	
10/24/2016	8.55	9.14
10/25/2016		
12/13/2016	8.08	9.2
12/14/2016		
2/6/2017		
2/7/2017	8.61	
2/8/2017		9.17
3/27/2017		
3/28/2017	7.94	
3/29/2017		
3/30/2017		9.08
4/24/2017		
4/26/2017	8.26	9.22
6/5/2017		
6/6/2017	8.23	9.22
6/7/2017		
8/21/2017		9.12
8/22/2017	8.1	
2/19/2018		
2/20/2018		
2/21/2018	8.48	9.17
5/15/2018		
5/16/2018	8.12	9.28
10/15/2018		
10/16/2018	8.22	9.35
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	8.06	9.26
9/23/2019		
9/24/2019	7.8	
9/25/2019		9.31
3/16/2020		
3/18/2020		
3/24/2020	7.93	
3/25/2020		9.29
5/12/2020		
5/13/2020		9.43
9/21/2020		
9/22/2020	8.17	9.41
9/23/2020		
2/1/2021		9.31
2/2/2021		
2/8/2021	7.89	
2/9/2021		

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
2/10/2021		
6/9/2021		
8/2/2021		
8/3/2021		
8/4/2021		9.08
8/9/2021		
8/10/2021	7.72	

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	10.26								
9/21/2016	10.45								
10/25/2016	10.42								
12/14/2016	10.12								
2/8/2017	10.28								
3/28/2017	10.67								
4/26/2017	10.42								
6/6/2017	10.51								
8/23/2017	11.91								
2/20/2018	11.57								
5/15/2018	11.26								
10/16/2018	11.34								
2/20/2019			6.17						
2/26/2019				7.04					
2/27/2019						7.25		8.01	
3/13/2019							8.3		
4/17/2019	11.71								
9/23/2019			5.76			7.25			
9/24/2019	11.24			6.59				7.11	
9/25/2019							8.57		
3/16/2020							8.31		
3/17/2020			5.95						
3/18/2020	11.37			7					
3/23/2020		7.93							
3/24/2020					8.67				
3/25/2020						7.24		7.45	
5/12/2020							8.35		
5/13/2020									
9/17/2020			5.74	7.02	8.83				
9/21/2020						7.25			
9/22/2020							8.24	7.42	
9/23/2020	10.71	7.81							
2/1/2021									
2/2/2021				6.93					
2/3/2021			6.22					7.63	
2/8/2021	10.69								
2/9/2021		7.87				7.38			
2/10/2021					8.77				
2/17/2021							8.31		7.71
7/27/2021			5.65						
8/2/2021									
8/3/2021				6.94					7.82
8/4/2021	10.95							7.68	
8/9/2021							8.5		
8/10/2021						6.69			
8/11/2021		8.28							
8/12/2021					8.78				

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
8/23/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	7.2	8.73
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	7.27	
9/17/2020		
9/21/2020	7.56	
9/22/2020		8.76
9/23/2020		
2/1/2021		8.66
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	7.29	
7/27/2021		
8/2/2021	7.27	8.69
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			7.35						
3/17/2020		7.67		8.4	8.44				
3/18/2020								7.2	
3/24/2020	8.47					7.99			
3/25/2020									
5/12/2020			7.44	8.46					
5/13/2020		7.7			8.52				
9/15/2020		7.66							
9/16/2020			7.45	8.48					
9/17/2020					8.18			7.22	
9/21/2020	8.15								
9/22/2020						7.96	6.64		
2/2/2021							6.55		
2/3/2021		7.64	7.26						
2/4/2021				8.35					
2/8/2021								7.36	6.77
2/9/2021						8.06			
2/10/2021	8.03								
2/17/2021					8.36				
7/27/2021		7.59	7.32						
7/28/2021				8.45					6.86
8/3/2021								6.97	
8/4/2021					8.37	7.75			
8/10/2021	8.35						6.56		

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	6.28	
3/25/2020		8.24
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	6.51	8.66
2/2/2021		
2/3/2021	6.47	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		8.72
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	6.41	8.75
8/10/2021		

Time Series

Constituent: pH (SU) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
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	7.77
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	8.81
9/21/2020						5.75			
9/22/2020							7.08		
2/2/2021					7.77	5.69	6.94		7.5
2/3/2021	8.9	7.55	7.05	8.9					
2/17/2021								8.32	
7/27/2021	9.04	6.79	6.67						
8/2/2021				8.76					
8/3/2021									7.74
8/9/2021					7.49			9.09	
8/10/2021						5.02	7.12		

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 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							
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	
3/18/2020	<0.00102			<0.00102	<0.00102				
3/24/2020		<0.00102				<0.00102			
3/25/2020									<0.00102
5/12/2020								<0.00102	
5/13/2020									
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
2/8/2021									
2/9/2021				<0.00102	<0.00102				
2/10/2021						<0.00102	<0.00102		
6/9/2021							<0.00102		

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.00102	
8/2/2016		<0.00102
8/3/2016		
9/19/2016		<0.00102
9/20/2016		
9/21/2016	<0.00102	
10/24/2016	<0.00102	<0.00102
10/25/2016		
12/13/2016	<0.00102	<0.00102
12/14/2016		
2/6/2017		
2/7/2017	<0.00102	
2/8/2017		<0.00102
3/27/2017		
3/28/2017	<0.00102	
3/29/2017		
3/30/2017		<0.00102
4/24/2017		
4/26/2017	<0.00102	<0.00102
6/5/2017		
6/6/2017	<0.00102	<0.00102
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.00102	<0.00102
5/15/2018		
5/16/2018	<0.00102	<0.00102
10/15/2018		
10/16/2018	<0.00102	<0.00102
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.00102	<0.00102
9/23/2019		
9/24/2019	<0.00102	
9/25/2019		<0.00102
3/16/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		<0.00102
9/21/2020		
9/22/2020	<0.00102	<0.00102
9/23/2020		
2/1/2021		<0.00102
2/2/2021		
2/8/2021	<0.00102	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.00102
8/9/2021		
8/10/2021	<0.00102	

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.00102								
9/21/2016	<0.00102								
10/25/2016	<0.00102								
12/14/2016	<0.00102								
2/8/2017	<0.00102								
3/28/2017	<0.00102								
4/26/2017	<0.00102								
6/6/2017	<0.00102								
2/20/2018	<0.00102								
5/15/2018	<0.00102								
10/16/2018	<0.00102								
2/20/2019			<0.00102						
2/26/2019				<0.00102					
2/27/2019						<0.00102		<0.00102	
3/13/2019							<0.00102		
4/17/2019	<0.00102								
9/23/2019			<0.00102			<0.00102			
9/24/2019	<0.00102			<0.00102				<0.00102	
9/25/2019							<0.00102		
3/16/2020							<0.00102		
3/17/2020			<0.00102						
3/18/2020	<0.00102			<0.00102					
3/23/2020		<0.00102							
3/24/2020					<0.00102				
3/25/2020						<0.00102		<0.00102	
5/12/2020							<0.00102		
5/13/2020							<0.00102		
9/17/2020			<0.00102	<0.00102	0.00636 (J)				
9/21/2020						<0.00102			
9/22/2020							<0.00102	<0.00102	
9/23/2020	<0.00102	<0.00102							
2/1/2021									
2/2/2021				<0.00102					
2/3/2021			<0.00102					<0.00102	
2/8/2021	<0.00102								
2/9/2021		<0.00102				<0.00102			
2/10/2021					<0.00102				
2/17/2021							<0.00102		<0.00102
7/27/2021			<0.00102						
8/2/2021									
8/3/2021				<0.00102					<0.00102
8/4/2021	<0.00102							<0.00102	
8/9/2021							<0.00102		
8/10/2021						<0.00102			
8/11/2021		<0.00102							
8/12/2021				<0.00102					

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.00102	<0.00102
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.00102	
9/17/2020		
9/21/2020	<0.00102	
9/22/2020		<0.00102
9/23/2020		
2/1/2021		<0.00102
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	<0.00102	
7/27/2021		
8/2/2021	<0.00102	<0.00102
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.00102						
3/17/2020		<0.00102		<0.00102	<0.00102				
3/18/2020								<0.00102	
3/24/2020	<0.00102					<0.00102			
3/25/2020									
5/12/2020			<0.00102	<0.00102					
5/13/2020		<0.00102			<0.00102				
9/15/2020		<0.00102							
9/16/2020			<0.00102	<0.00102					
9/17/2020					<0.00102			<0.00102	
9/21/2020	<0.00102								
9/22/2020						<0.00102	<0.00102		
2/2/2021							<0.00102		
2/3/2021		<0.00102	<0.00102						
2/4/2021				<0.00102					
2/8/2021								<0.00102	<0.00102
2/9/2021						<0.00102			
2/10/2021	<0.00102								
2/17/2021					<0.00102				
7/27/2021		<0.00102	<0.00102						
7/28/2021				<0.00102					<0.00102
8/3/2021								<0.00102	
8/4/2021					<0.00102	<0.00102			
8/10/2021	<0.00102						<0.00102		

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.00102	
3/25/2020		<0.00102
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.00102	<0.00102
2/2/2021		
2/3/2021	<0.00102	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		<0.00102
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	<0.00102	<0.00102
8/10/2021		

Time Series

Constituent: Selenium (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.00102				
8/3/2016		<0.00102	<0.00102			<0.00102			
9/20/2016		<0.00102	<0.00102						
9/21/2016					<0.00102	<0.00102			
10/24/2016		<0.00102			<0.00102				
10/25/2016						<0.00102			
10/26/2016			<0.00102						
12/12/2016		<0.00102	<0.00102		<0.00102				
12/13/2016						<0.00102			
2/6/2017		<0.00102	<0.00102		<0.00102	<0.00102			
3/27/2017		<0.00102	<0.00102						
3/28/2017					<0.00102	<0.00102			
4/24/2017		<0.00102	<0.00102		<0.00102	<0.00102			
6/6/2017		<0.00102	<0.00102						
6/7/2017					<0.00102	<0.00102			
2/19/2018		<0.00102	<0.00102		<0.00102	<0.00102			
5/14/2018		<0.00102	<0.00102						
5/15/2018					<0.00102	<0.00102			
10/15/2018		<0.00102	<0.00102		<0.00102				
10/16/2018						<0.00102			
4/16/2019		<0.00102	<0.00102			<0.00102			
4/23/2019					<0.00102				
9/23/2019		<0.00102	<0.00102						
9/24/2019					<0.00102	<0.00102			
3/17/2020		<0.00102	<0.00102		<0.00102				
3/18/2020						<0.00102			
3/23/2020							<0.00102		
3/24/2020								<0.00102	<0.00102
8/27/2020	<0.00102								
9/8/2020				<0.00102					
9/15/2020	<0.00102			<0.00102					
9/16/2020			<0.00102		<0.00102				
9/17/2020		<0.00102					<0.00102		<0.00102
9/21/2020						<0.00102			
9/22/2020							<0.00102		
2/2/2021					<0.00102	<0.00102	<0.00102		<0.00102
2/3/2021	<0.00102	<0.00102	0.000794 (J)	<0.00102					
2/17/2021								<0.00102	
7/27/2021	<0.00102	<0.00102	0.00124						
8/2/2021				<0.00102					
8/3/2021									<0.00102
8/9/2021					<0.00102			<0.00102	
8/10/2021						<0.00102	<0.00102		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	9.02	
8/2/2016		2.87
8/3/2016		
9/19/2016		1.22
9/20/2016		
9/21/2016	8.38	
10/24/2016	18.5	<1
10/25/2016		
12/13/2016	7.4	<1
12/14/2016		
2/6/2017		
2/7/2017	8.16	
2/8/2017		19.4
3/27/2017		
3/28/2017	6.4	
3/29/2017		
3/30/2017		31
4/24/2017		
4/26/2017	4.6 (J)	29
6/5/2017		
6/6/2017	5.2	37
6/7/2017		
8/21/2017		55
8/22/2017	5.3	
5/15/2018		
5/16/2018	6	34
10/15/2018		
10/16/2018	5.6	90
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	14.3	48.6
9/23/2019		
9/24/2019	13.8	
9/25/2019		47.7
3/16/2020		
3/18/2020		
3/24/2020	15.2	
3/25/2020		38.5
5/12/2020		
5/13/2020		33.6
9/21/2020		
9/22/2020	16.9	21.5
9/23/2020		
2/1/2021		21.3
2/2/2021		
2/8/2021	16.2	
2/9/2021		
2/10/2021		
6/9/2021		
8/2/2021		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/3/2021		
8/4/2021		16.8
8/9/2021		
8/10/2021	15.2	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	9.14								
9/21/2016	8.71								
10/25/2016	8.54								
12/14/2016	11.5								
2/8/2017	17								
3/28/2017	25								
4/26/2017	28								
6/6/2017	33								
8/23/2017	43								
5/15/2018	110								
10/16/2018	160								
2/20/2019			352						
2/26/2019				10.9					
2/27/2019						4.89		20.7	
3/13/2019							30		
4/17/2019	215								
9/23/2019			394			16.9			
9/24/2019	224			15.3				32.6	
9/25/2019							10.2		
3/16/2020							9.91		
3/17/2020			356						
3/18/2020	228			12.2					
3/23/2020		1050							
3/24/2020					201				
3/25/2020						3.25		29.4	
5/12/2020							14.3		
5/13/2020									
9/17/2020			361	6.7	173				
9/21/2020						4.54			
9/22/2020							10.5	81.6	
9/23/2020	248	1120							
2/1/2021									
2/2/2021				6.43					
2/3/2021			339					135	
2/8/2021	232								
2/9/2021		645				5.76			
2/10/2021					171				
2/17/2021							6.39		158
7/27/2021			339						
8/2/2021									
8/3/2021				6.21					99.4
8/4/2021	231							74	
8/9/2021							3.49		
8/10/2021						4.73			
8/11/2021		137							
8/12/2021					125				

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
8/23/2017		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	184	50.4
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	194	
9/17/2020		
9/21/2020	128	
9/22/2020		22.1
9/23/2020		
2/1/2021		32.2
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	136	
7/27/2021		
8/2/2021	201	35.1
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			1480						
3/17/2020		172		40.1	57.1				
3/18/2020								122	
3/24/2020	33.2					16.7			
3/25/2020									
5/12/2020			1330	22.6					
5/13/2020		60			47.8				
9/15/2020		98.6							
9/16/2020			1390	24.6					
9/17/2020					50.2			105	
9/21/2020	38.7								
9/22/2020						27	626		
2/2/2021							644		
2/3/2021		70.7	1610						
2/4/2021				25.3					
2/8/2021								111	95.1
2/9/2021						27			
2/10/2021	50.8								
2/17/2021					28.9				
7/27/2021		100	1580						
7/28/2021				20.7					103
8/3/2021								94.1	
8/4/2021					83.7	32.3			
8/10/2021	45.6						661		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	449	
3/25/2020		327
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	372	269
2/2/2021		
2/3/2021	373	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		285
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	372	301
8/10/2021		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 1/3/2022 11:25 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					154				
8/3/2016		52	203			4.2			
9/20/2016		56	209						
9/21/2016					146	4.27			
10/24/2016		57.5			131				
10/25/2016						2.78			
10/26/2016			224						
12/12/2016		50	249		141				
12/13/2016						3.18			
2/6/2017		54.9	309		135	3.74			
3/27/2017		50	290						
3/28/2017					140	3.4 (J)			
4/24/2017		56	300		140	2.7 (J)			
6/6/2017		63	310						
6/7/2017					150	2.7 (J)			
8/21/2017		35	260		140	3.9 (J)			
5/14/2018		46	210						
5/15/2018					120	2.5 (J)			
10/15/2018		37	170		130				
10/16/2018						2.4 (J)			
4/16/2019		46.8	195			4.53			
4/23/2019					156				
9/23/2019		47.9	176						
9/24/2019					145	6.61			
3/17/2020		59.5	148		149				
3/18/2020						4.86			
3/23/2020							18.7		
3/24/2020								27.7	70.1
8/27/2020	33.5								
9/8/2020				9.06					
9/15/2020	71.6			7.02					
9/16/2020			115		131				
9/17/2020		65.1						15.2	79.9
9/21/2020						4.69			
9/22/2020							21.2		
2/2/2021					130	4.83	31.2		84.1
2/3/2021	57	58.9	116	4.29					
2/17/2021								14.1	
7/27/2021	36.9	64.4	114						
8/2/2021				14.1					
8/3/2021									74.7
8/9/2021					133			13.6	
8/10/2021						3.77	32.7		

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	245	
8/2/2016		390
8/3/2016		
9/19/2016		398
9/20/2016		
9/21/2016	267	
10/24/2016	275	395
10/25/2016		
12/13/2016	255	381
12/14/2016		
2/6/2017		
2/7/2017	272	
2/8/2017		376
3/27/2017		
3/28/2017	271	
3/29/2017		
3/30/2017		391
4/24/2017		
4/26/2017	265	384
6/5/2017		
6/6/2017	287	404
6/7/2017		
8/21/2017		416
8/22/2017	293	
5/15/2018		
5/16/2018	301	365
10/15/2018		
10/16/2018	303	430
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	296	341
9/23/2019		
9/24/2019	302	
9/25/2019		358
3/16/2020		
3/18/2020		
3/24/2020	302	
3/25/2020		337
5/12/2020		
5/13/2020		328
9/21/2020		
9/22/2020	300	318
9/23/2020		
2/1/2021		333
2/2/2021		
2/8/2021	324	
2/9/2021		
2/10/2021		
6/9/2021		
8/2/2021		

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2022 11:25 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/3/2021		
8/4/2021		316
8/9/2021		
8/10/2021	307	

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2022 11:26 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	348								
9/21/2016	368								
10/25/2016	348								
12/14/2016	352								
2/8/2017	352								
3/28/2017	370								
4/26/2017	342								
6/6/2017	367								
8/23/2017	508								
5/15/2018	438								
10/16/2018	520								
2/20/2019			560						
2/26/2019				249					
2/27/2019						266		414	
3/13/2019							514		
4/17/2019	582								
9/23/2019			598			278			
9/24/2019	630			253				389	
9/25/2019							443		
3/16/2020							449		
3/17/2020			626						
3/18/2020	661			250					
3/23/2020		3410							
3/24/2020					948				
3/25/2020						269		371	
5/12/2020							464		
5/13/2020									
9/17/2020			648	250	960				
9/21/2020						287			
9/22/2020							456	430	
9/23/2020	642	3690							
2/1/2021									
2/2/2021				259					
2/3/2021			612					480	
2/8/2021	684								
2/9/2021		2250				280			
2/10/2021					887				
2/17/2021							451		387
7/27/2021			580						
8/2/2021									
8/3/2021				191					333
8/4/2021	594							407	
8/9/2021							436		
8/10/2021						271			
8/11/2021		712							
8/12/2021					967				

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2022 11:26 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
8/23/2017		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	612	326
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	624	
9/17/2020		
9/21/2020	592	
9/22/2020		298
9/23/2020		
2/1/2021		339
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	534	
7/27/2021		
8/2/2021	602	332
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2022 11:26 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			2460						
3/17/2020		827		365	362				
3/18/2020								309	
3/24/2020	331					335			
3/25/2020									
5/12/2020			2440	311					
5/13/2020		457				333			
9/15/2020		538							
9/16/2020			2720	326					
9/17/2020					348			318	
9/21/2020	357								
9/22/2020						339	1310		
2/2/2021							1320		
2/3/2021		443	2930						
2/4/2021				339					
2/8/2021								326	317
2/9/2021						355			
2/10/2021	379								
2/17/2021					292				
7/27/2021		472	2930						
7/28/2021				302					283
8/3/2021								307	
8/4/2021					449	368			
8/10/2021	379						1240		

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2022 11:26 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	850	
3/25/2020		930
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	800	910
2/2/2021		
2/3/2021	768	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		853
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	740	855
8/10/2021		

Time Series

Constituent: TDS (mg/L) Analysis Run 1/3/2022 11:26 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					358				
8/3/2016		302	394			113			
9/20/2016		298	444						
9/21/2016					370	128			
10/24/2016		306			370				
10/25/2016						121			
10/26/2016			456						
12/12/2016		291	491		353				
12/13/2016						101			
2/6/2017		285	580		338	108			
3/27/2017		305	554						
3/28/2017					352	91			
4/24/2017		301	566		362	89.3			
6/6/2017		311	580						
6/7/2017					348	84			
8/21/2017		289	524		362	91.3			
5/14/2018		303	458						
5/15/2018					338	94.7			
10/15/2018		309	404		333				
10/16/2018						76.7			
4/16/2019		285	382			92			
4/23/2019					354				
9/23/2019		296	381						
9/24/2019					344	109			
3/17/2020		303	328		334				
3/18/2020						90.7			
3/23/2020							268		
3/24/2020								381	412
8/27/2020	435								
9/8/2020				810					
9/15/2020	564			857					
9/16/2020			269		351				
9/17/2020		314						387	438
9/21/2020						94			
9/22/2020							285		
2/2/2021					349	98.7	314		446
2/3/2021	592	301	274	840					
2/17/2021								397	
7/27/2021	510	262	273						
8/2/2021				833					
8/3/2021									414
8/9/2021					340			384	
8/10/2021						101	309		

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 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							
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	
3/18/2020	<0.0002			<0.0002	<0.0002				
3/24/2020		<0.0002				<0.0002			
3/25/2020									<0.0002
5/12/2020								<0.0002	
5/13/2020									
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
2/8/2021									
2/9/2021				<0.0002	<0.0002				
2/10/2021						<0.0002	<0.0002		
6/9/2021							<0.0002		

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/1/2016	<0.0002	
8/2/2016		<0.0002
8/3/2016		
9/19/2016		<0.0002
9/20/2016		
9/21/2016	<0.0002	
10/24/2016	<0.0002	<0.0002
10/25/2016		
12/13/2016	<0.0002	<0.0002
12/14/2016		
2/6/2017		
2/7/2017	<0.0002	
2/8/2017		<0.0002
3/27/2017		
3/28/2017	<0.0002	
3/29/2017		
3/30/2017		<0.0002
4/24/2017		
4/26/2017	<0.0002	<0.0002
6/5/2017		
6/6/2017	<0.0002	<0.0002
6/7/2017		
2/19/2018		
2/20/2018		
2/21/2018	<0.0002	<0.0002
5/15/2018		
5/16/2018	<0.0002	<0.0002
10/15/2018		
10/16/2018	<0.0002	<0.0002
10/17/2018		
2/20/2019		
2/21/2019		
4/16/2019		
4/17/2019	<0.0002	<0.0002
9/23/2019		
9/24/2019	<0.0002	
9/25/2019		<0.0002
3/16/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		<0.0002
9/21/2020		
9/22/2020	<0.0002	<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/8/2021	<0.0002	
2/9/2021		
2/10/2021		
6/9/2021		

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-19	GS-AP-MW-2
8/2/2021		
8/3/2021		
8/4/2021		<0.0002
8/9/2021		
8/10/2021	<0.0002	

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-21	GS-AP-MW-21V	GS-AP-MW-23H	GS-AP-MW-24H	GS-AP-MW-25HA	GS-AP-MW-26H	GS-AP-MW-28H	GS-AP-MW-29H	GS-AP-MW-3
8/2/2016	<0.0002								
9/21/2016	<0.0002								
10/25/2016	<0.0002								
12/14/2016	<0.0002								
2/8/2017	<0.0002								
3/28/2017	<0.0002								
4/26/2017	<0.0002								
6/6/2017	<0.0002								
2/20/2018	<0.0002								
5/15/2018	<0.0002								
10/16/2018	<0.0002								
2/20/2019			<0.0002						
2/26/2019				<0.0002					
2/27/2019						<0.0002		<0.0002	
3/13/2019							<0.0002		
4/17/2019	<0.0002								
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						
3/18/2020	<0.0002			<0.0002					
3/23/2020		<0.0002							
3/24/2020					<0.0002				
3/25/2020						<0.0002		<0.0002	
5/12/2020							<0.0002		
5/13/2020									
9/17/2020			<0.0002	<0.0002	<0.0002				
9/21/2020						<0.0002			
9/22/2020							<0.0002	<0.0002	
9/23/2020	<0.0002	<0.0002							
2/1/2021									
2/2/2021				<0.0002					
2/3/2021			<0.0002					<0.0002	
2/8/2021	<0.0002								
2/9/2021		<0.0002				<0.0002			
2/10/2021					<0.0002				
2/17/2021							<0.0002		<0.0002
7/27/2021			<0.0002						
8/2/2021									
8/3/2021				<0.0002					<0.0002
8/4/2021	<0.0002							<0.0002	
8/9/2021							<0.0002		
8/10/2021						<0.0002			
8/11/2021		<0.0002							
8/12/2021				<0.0002					

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

GS-AP-MW-30HA GS-AP-MW-31H

8/2/2016		
9/21/2016		
10/25/2016		
12/14/2016		
2/8/2017		
3/28/2017		
4/26/2017		
6/6/2017		
2/20/2018		
5/15/2018		
10/16/2018		
2/20/2019		
2/26/2019		
2/27/2019		
3/13/2019		
4/17/2019		
9/23/2019		
9/24/2019		
9/25/2019		
3/16/2020		
3/17/2020		
3/18/2020	<0.0002	<0.0002
3/23/2020		
3/24/2020		
3/25/2020		
5/12/2020		
5/13/2020	<0.0002	
9/17/2020		
9/21/2020	<0.0002	
9/22/2020		<0.0002
9/23/2020		
2/1/2021		<0.0002
2/2/2021		
2/3/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021	<0.0002	
7/27/2021		
8/2/2021	<0.0002	<0.0002
8/3/2021		
8/4/2021		
8/9/2021		
8/10/2021		
8/11/2021		
8/12/2021		

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-32H	GS-AP-MW-33HO	GS-AP-MW-34HO	GS-AP-MW-35HO	GS-AP-MW-36H	GS-AP-MW-38H	GS-AP-MW-40H	GS-AP-MW-41HD	GS-AP-MW-41HS
3/16/2020			<0.0002						
3/17/2020		<0.0002		<0.0002	<0.0002				
3/18/2020								<0.0002	
3/24/2020	<0.0002					<0.0002			
3/25/2020									
5/12/2020			<0.0002	<0.0002					
5/13/2020		<0.0002			<0.0002				
9/15/2020		<0.0002							
9/16/2020			<0.0002	<0.0002					
9/17/2020					<0.0002			<0.0002	
9/21/2020	<0.0002								
9/22/2020						<0.0002	<0.0002		
2/2/2021							<0.0002		
2/3/2021		<0.0002	<0.0002						
2/4/2021				<0.0002					
2/8/2021								<0.0002	<0.0002
2/9/2021						<0.0002			
2/10/2021	<0.0002								
2/17/2021					<0.0002				
7/27/2021		<0.0002	<0.0002						
7/28/2021				<0.0002					<0.0002
8/3/2021								<0.0002	
8/4/2021					<0.0002	<0.0002			
8/10/2021	<0.0002						<0.0002		

Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 PM
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-42H	GS-AP-MW-43HO
3/16/2020		
3/17/2020		
3/18/2020		
3/24/2020	<0.0002	
3/25/2020		<0.0002
5/12/2020		
5/13/2020		
9/15/2020		
9/16/2020		
9/17/2020		
9/21/2020		
9/22/2020	<0.0002	<0.0002
2/2/2021		
2/3/2021	<0.0002	
2/4/2021		
2/8/2021		
2/9/2021		
2/10/2021		
2/17/2021		<0.0002
7/27/2021		
7/28/2021		
8/3/2021		
8/4/2021	<0.0002	<0.0002
8/10/2021		

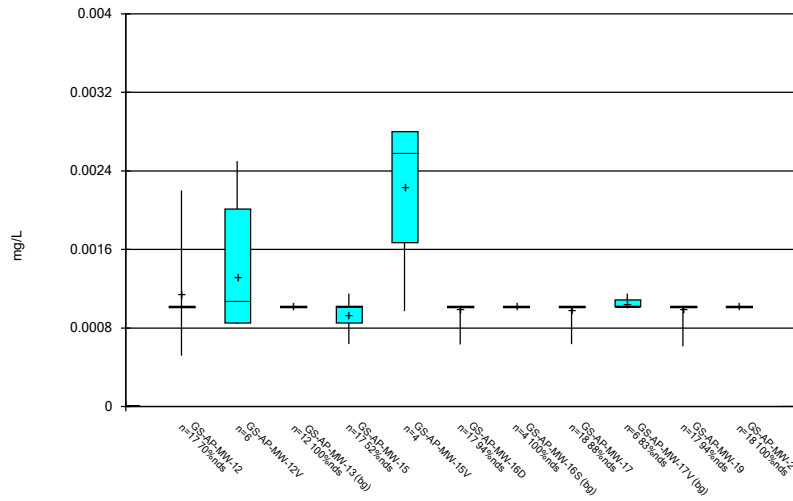
Time Series

Constituent: Thallium (mg/L) Analysis Run 1/3/2022 11:26 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-44HO	GS-AP-MW-6D	GS-AP-MW-6S	GS-AP-MW-6V	GS-AP-MW-7	GS-AP-MW-8 (bg)	GS-AP-MW-9V	GS-AP-PZ-16	GS-AP-PZ-22
8/2/2016					<0.0002				
8/3/2016		<0.0002	<0.0002			<0.0002			
9/20/2016		<0.0002	<0.0002						
9/21/2016					<0.0002	<0.0002			
10/24/2016		<0.0002			<0.0002				
10/25/2016						<0.0002			
10/26/2016			<0.0002						
12/12/2016		<0.0002	<0.0002		<0.0002				
12/13/2016						<0.0002			
2/6/2017		<0.0002	<0.0002		<0.0002	<0.0002			
3/27/2017		<0.0002	<0.0002						
3/28/2017					<0.0002	<0.0002			
4/24/2017		<0.0002	<0.0002		<0.0002	<0.0002			
6/6/2017		<0.0002	<0.0002						
6/7/2017					<0.0002	<0.0002			
2/19/2018		<0.0002	<0.0002		<0.0002	<0.0002			
5/14/2018		<0.0002	<0.0002						
5/15/2018					<0.0002	<0.0002			
10/15/2018		<0.0002	<0.0002		<0.0002				
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4/23/2019					<0.0002				
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9/24/2019					<0.0002	<0.0002			
3/17/2020		<0.0002	<0.0002		<0.0002				
3/18/2020						<0.0002			
3/23/2020							<0.0002		
3/24/2020								<0.0002	<0.0002
8/27/2020	<0.0002								
9/8/2020				<0.0002					
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9/16/2020			<0.0002		<0.0002				
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9/21/2020						<0.0002			
9/22/2020							<0.0002		
2/2/2021					<0.0002	<0.0002	<0.0002		<0.0002
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2/17/2021								<0.0002	
7/27/2021	<0.0002	<0.0002	<0.0002						
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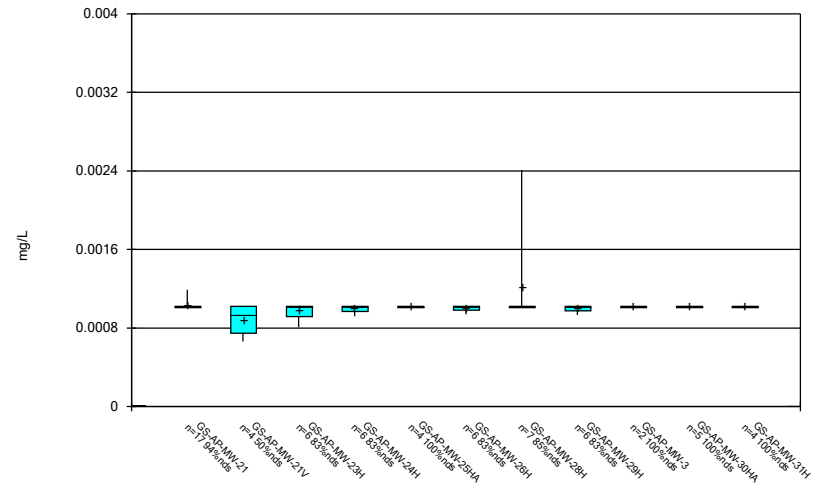
FIGURE B.

Box & Whiskers Plot



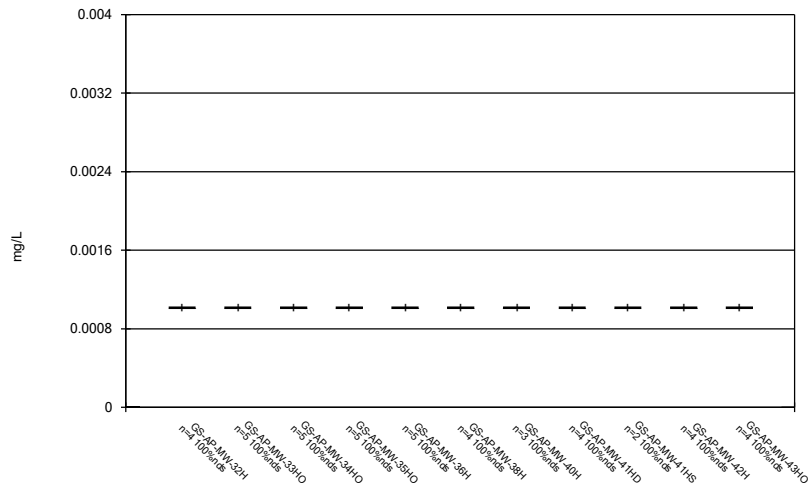
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



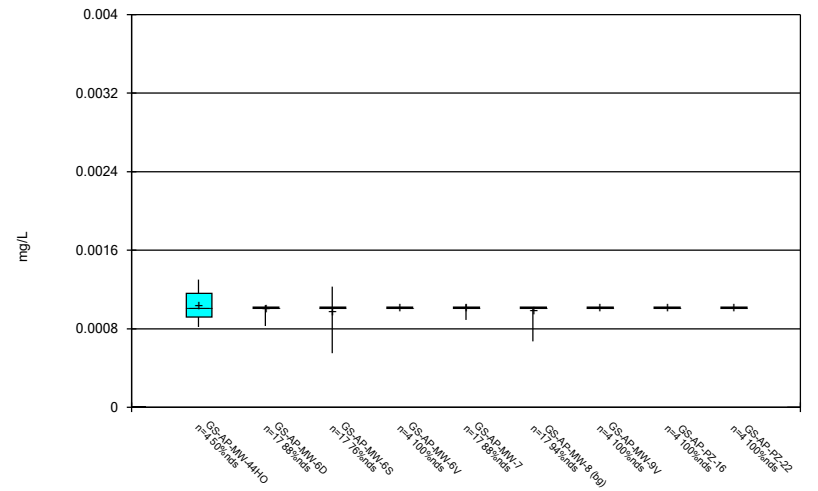
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Box & Whiskers Plot



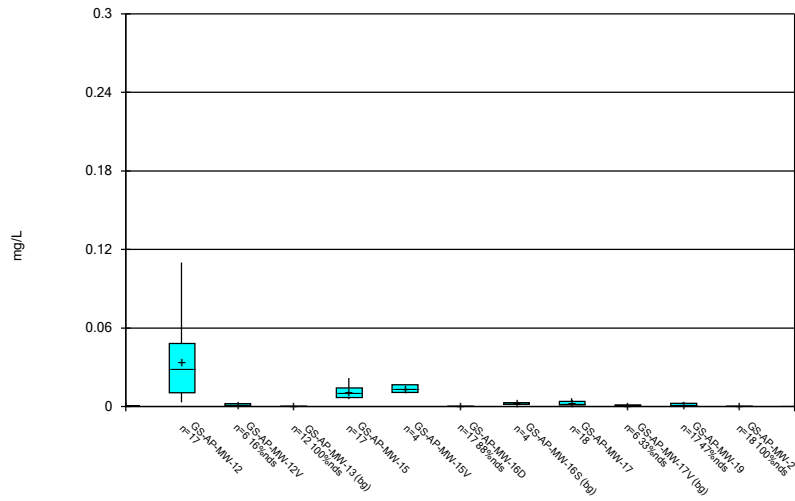
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Box & Whiskers Plot



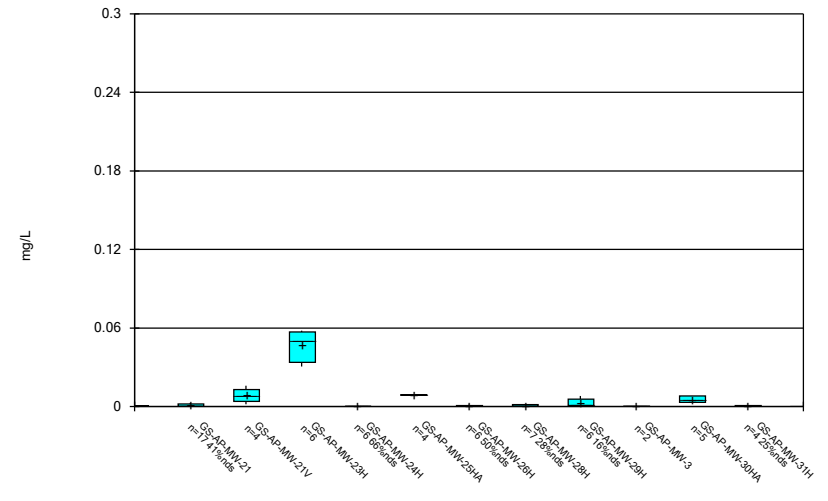
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Box & Whiskers Plot



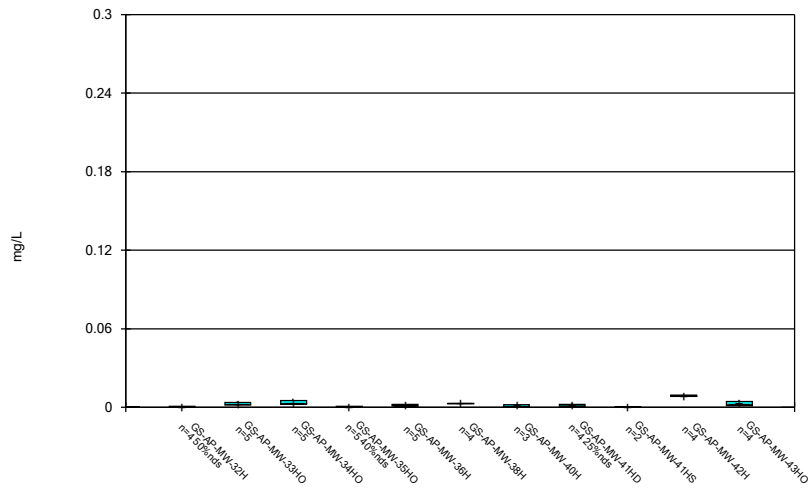
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Box & Whiskers Plot



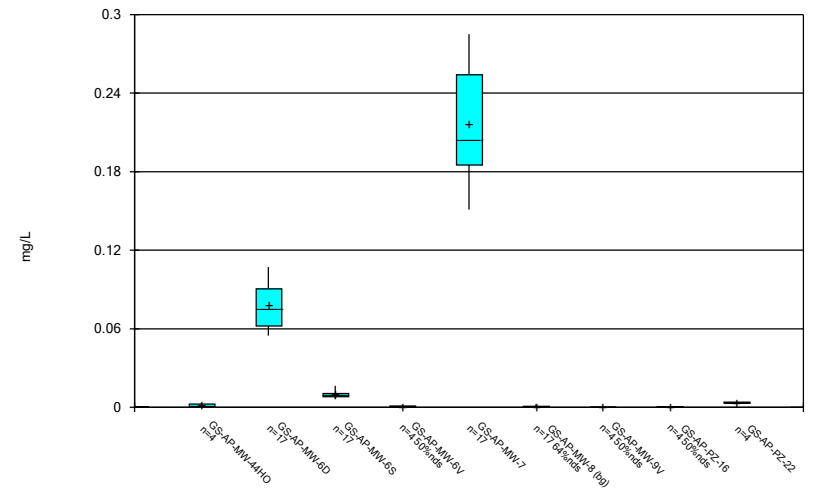
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Box & Whiskers Plot



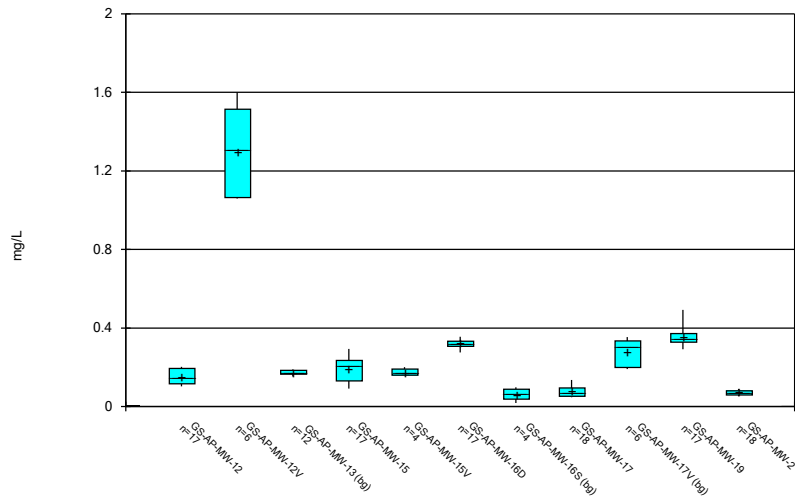
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Box & Whiskers Plot



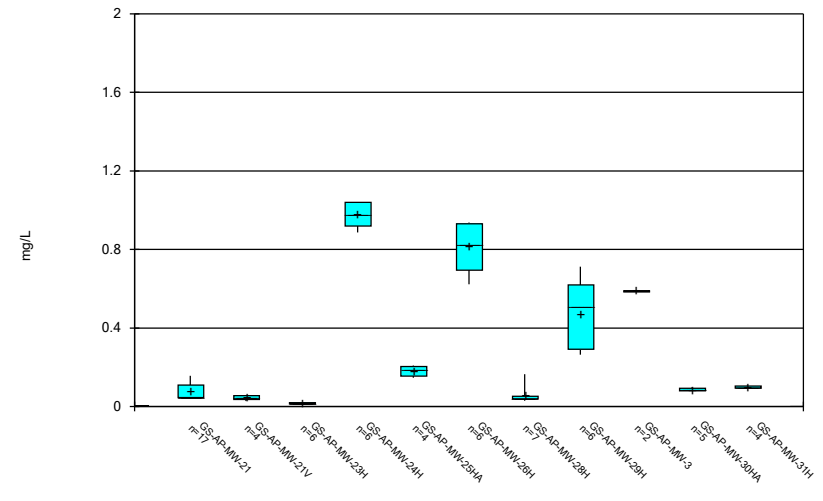
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Box & Whiskers Plot



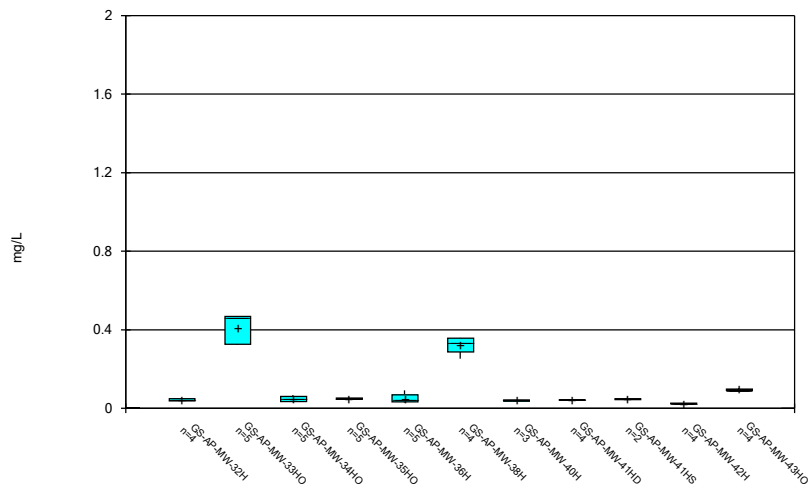
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Box & Whiskers Plot



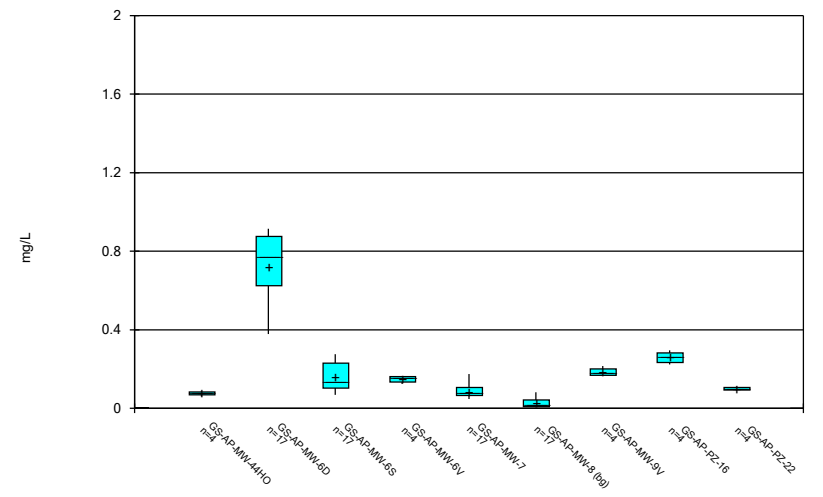
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Box & Whiskers Plot



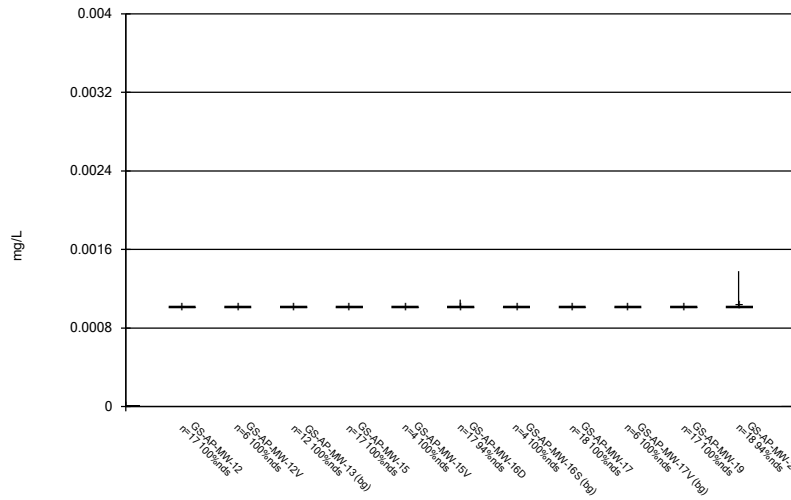
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Box & Whiskers Plot



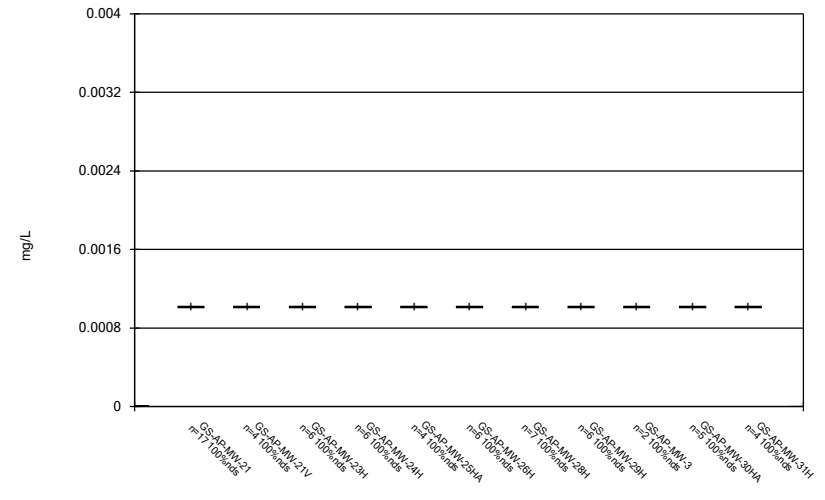
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Box & Whiskers Plot



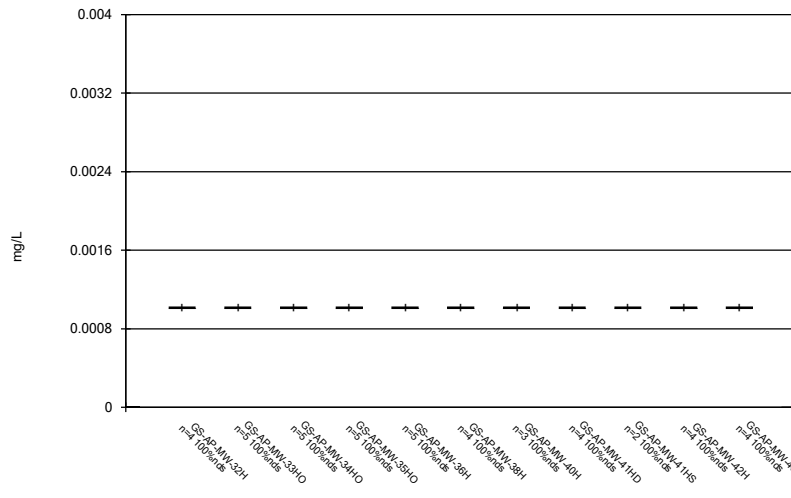
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Box & Whiskers Plot



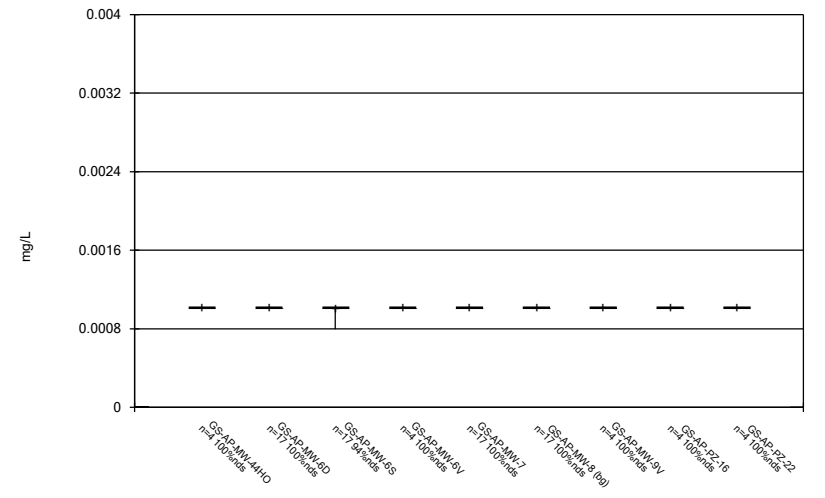
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Box & Whiskers Plot



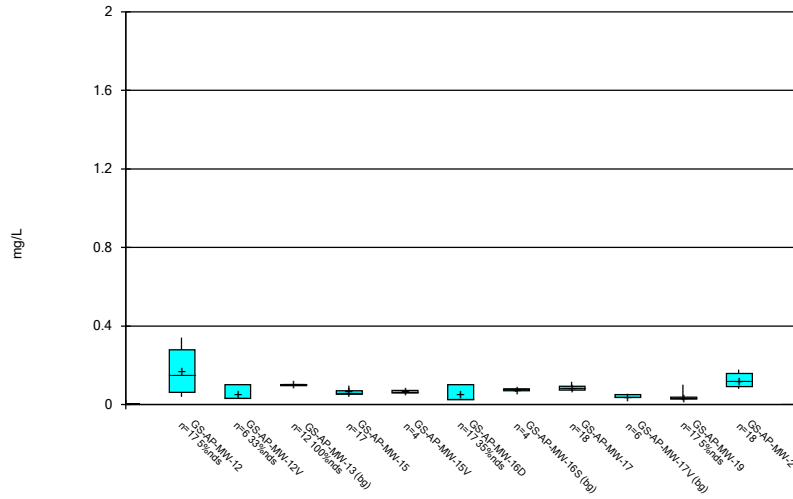
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Box & Whiskers Plot



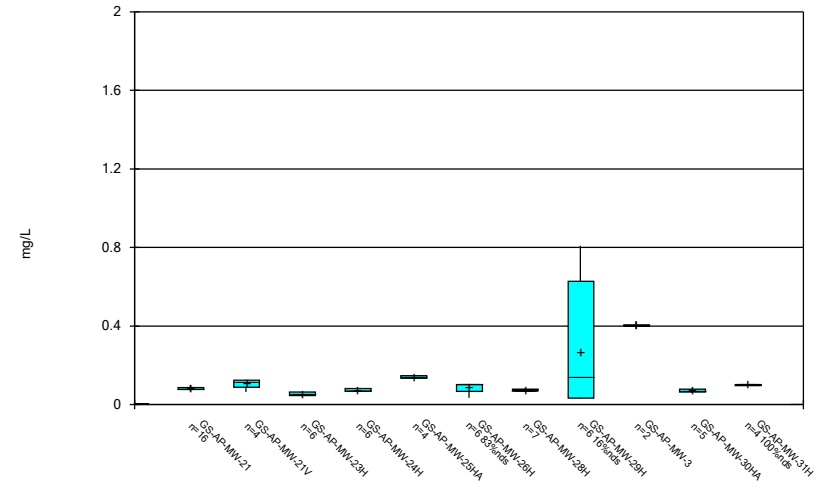
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Box & Whiskers Plot



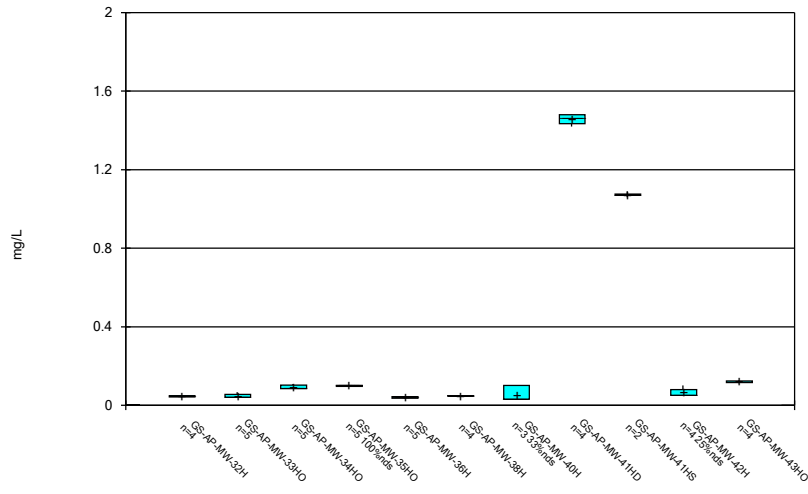
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Box & Whiskers Plot



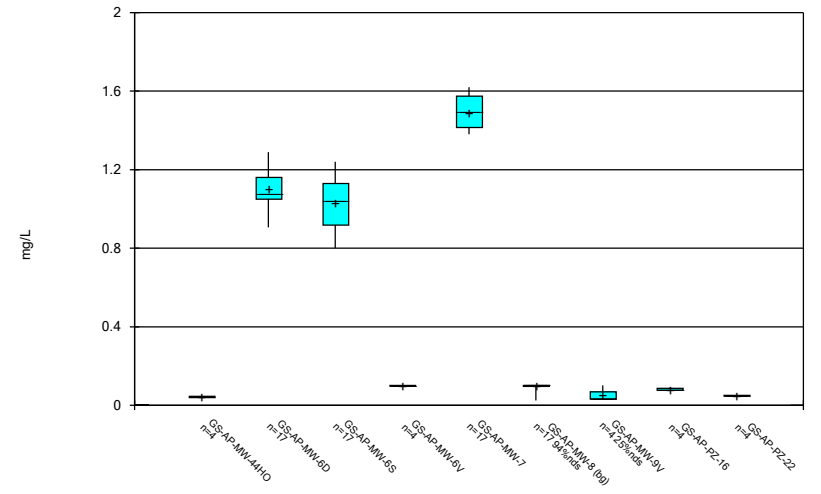
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Box & Whiskers Plot



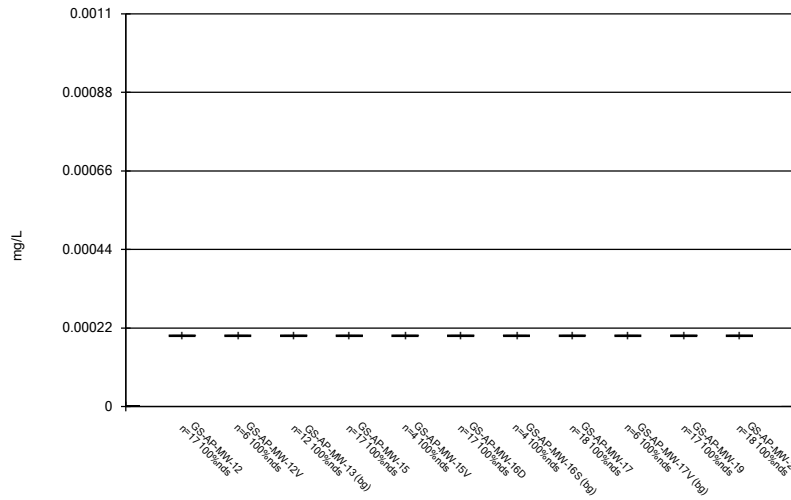
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Box & Whiskers Plot



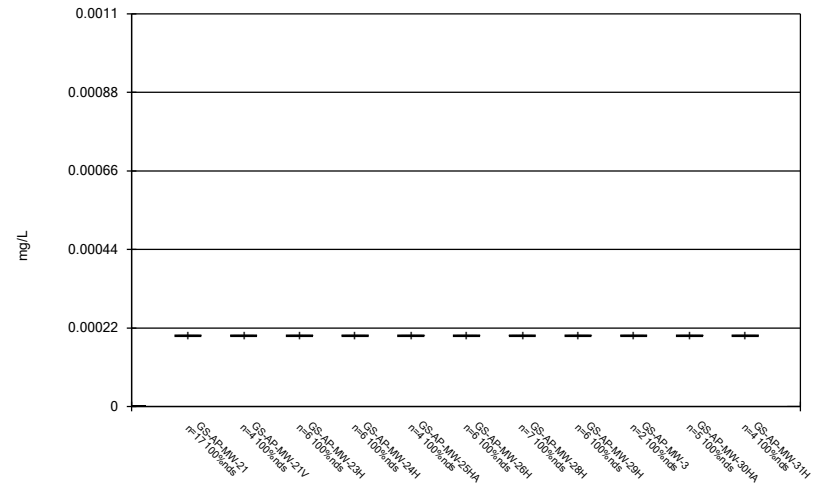
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Box & Whiskers Plot



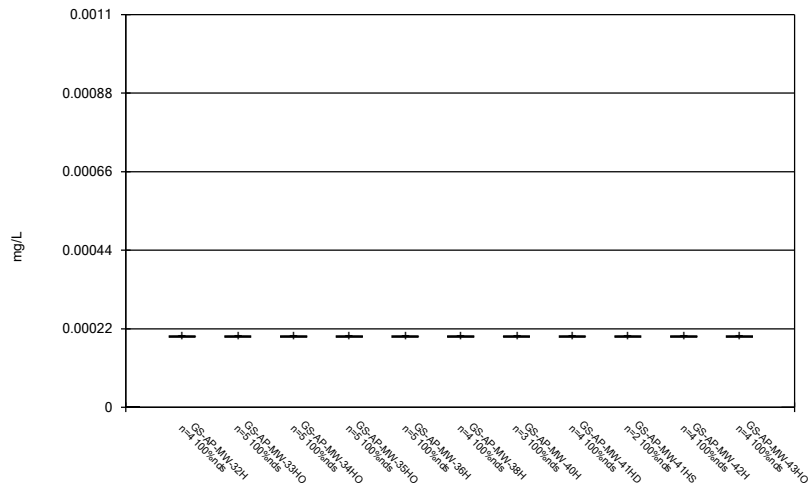
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Box & Whiskers Plot



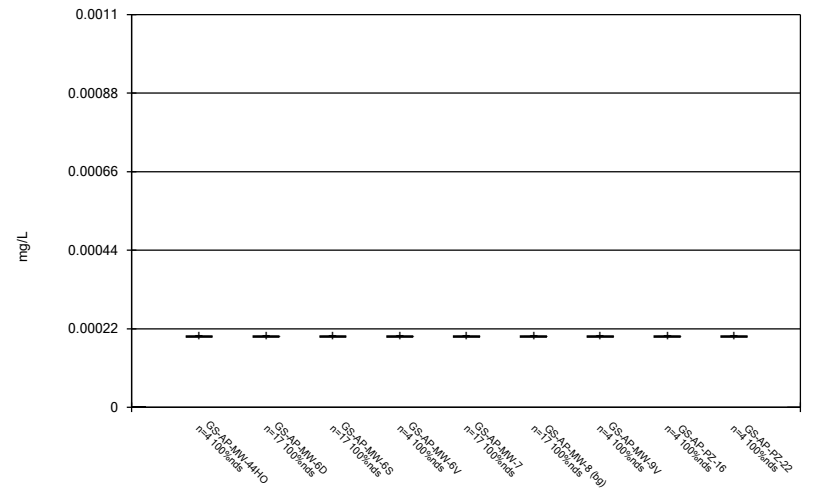
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Box & Whiskers Plot



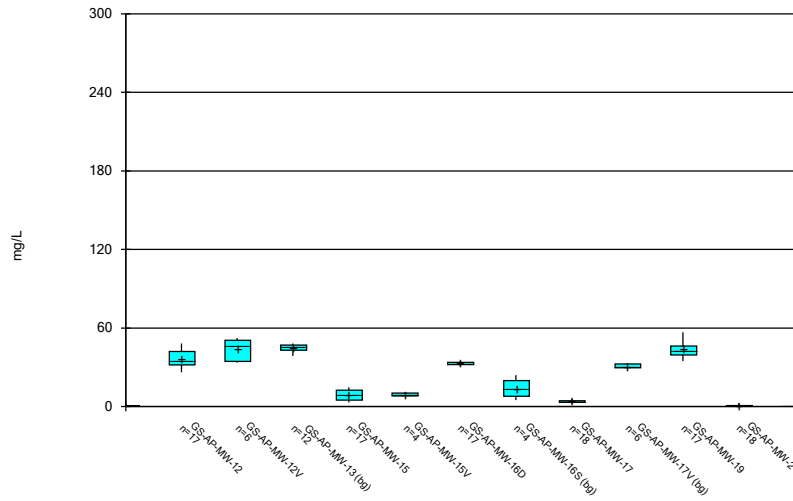
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Box & Whiskers Plot



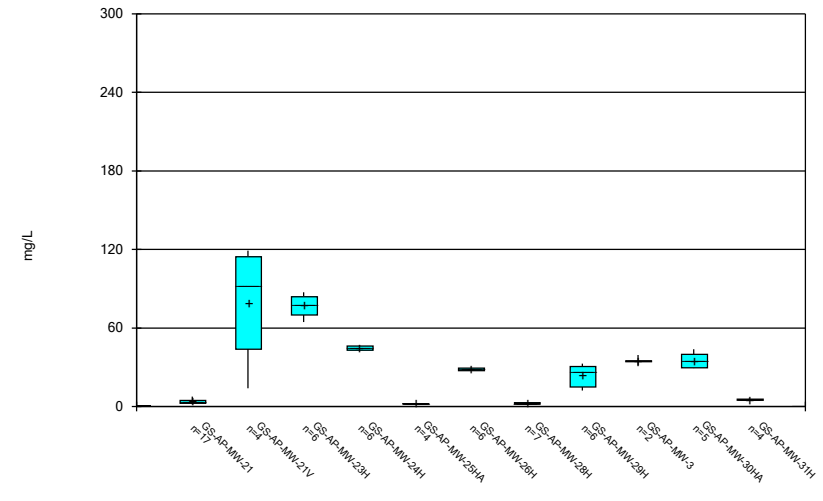
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Box & Whiskers Plot



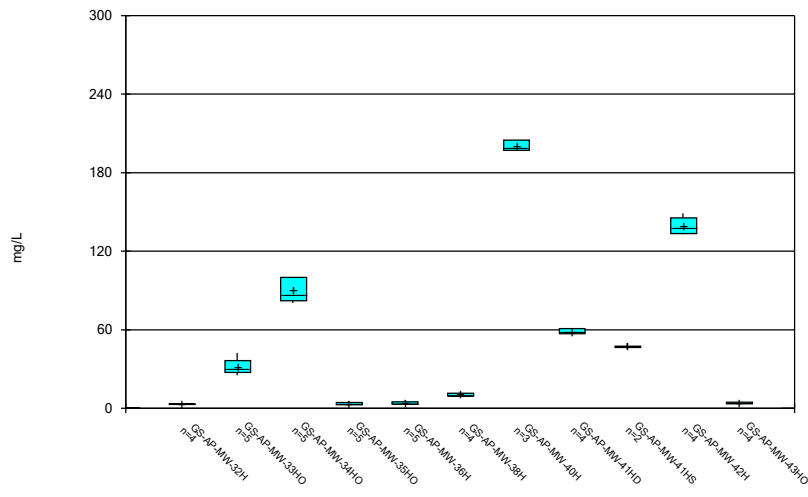
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Box & Whiskers Plot



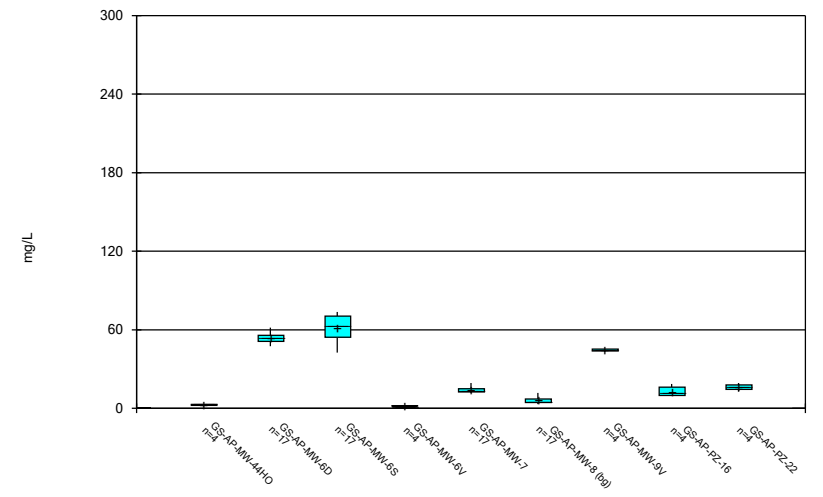
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Box & Whiskers Plot



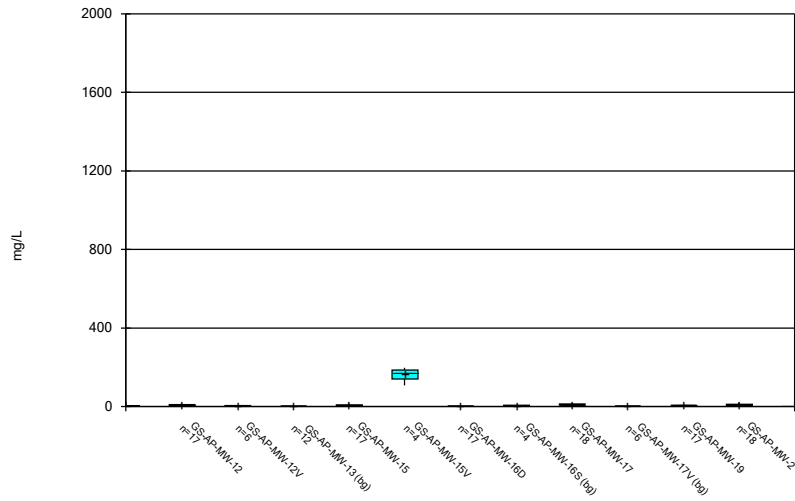
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Box & Whiskers Plot



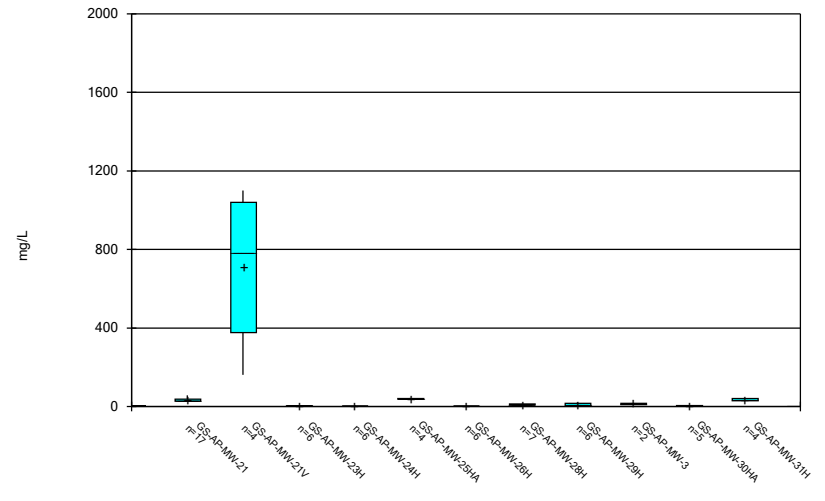
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Box & Whiskers Plot



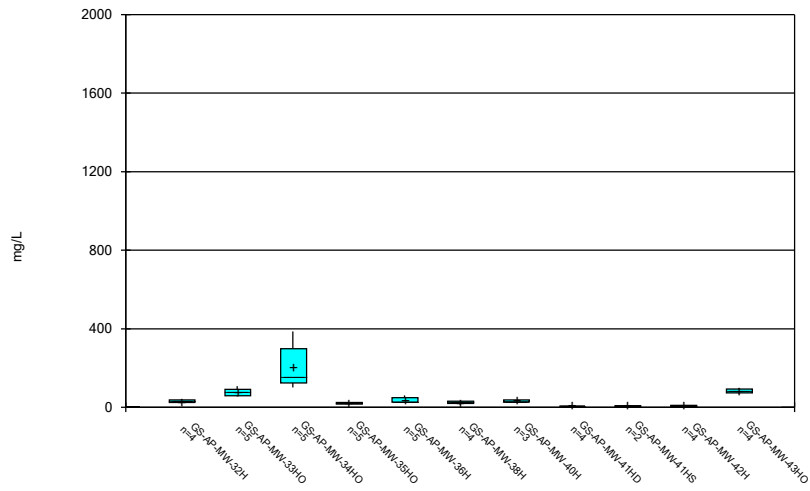
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Box & Whiskers Plot



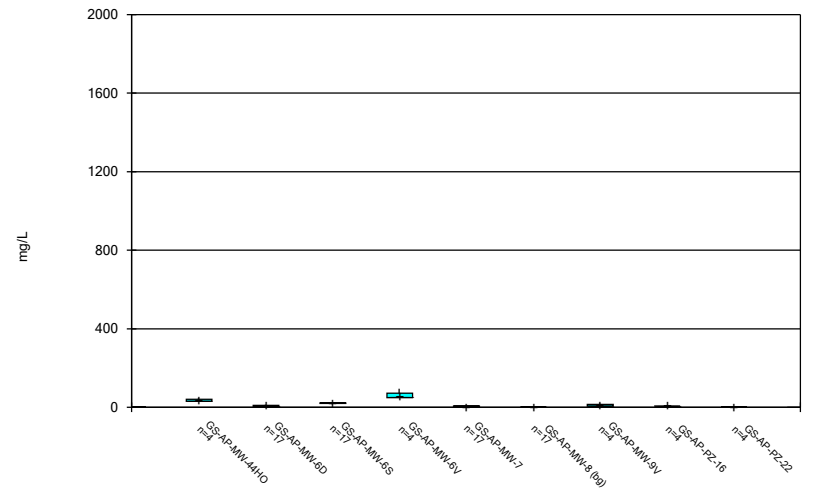
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Box & Whiskers Plot



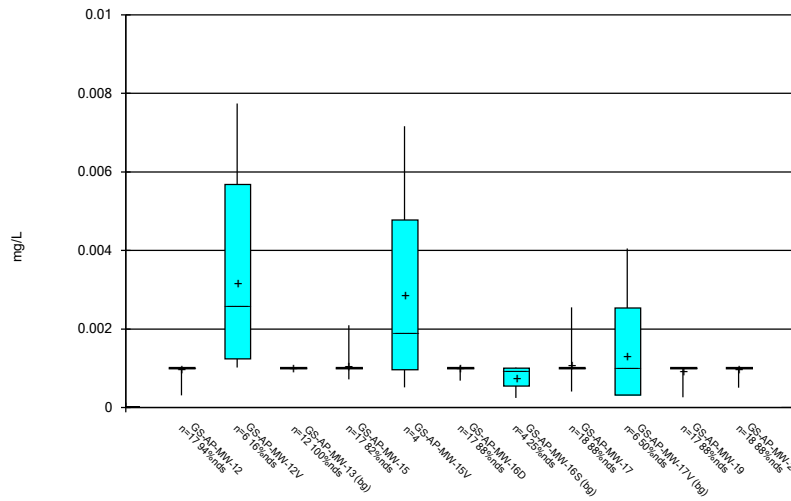
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Box & Whiskers Plot



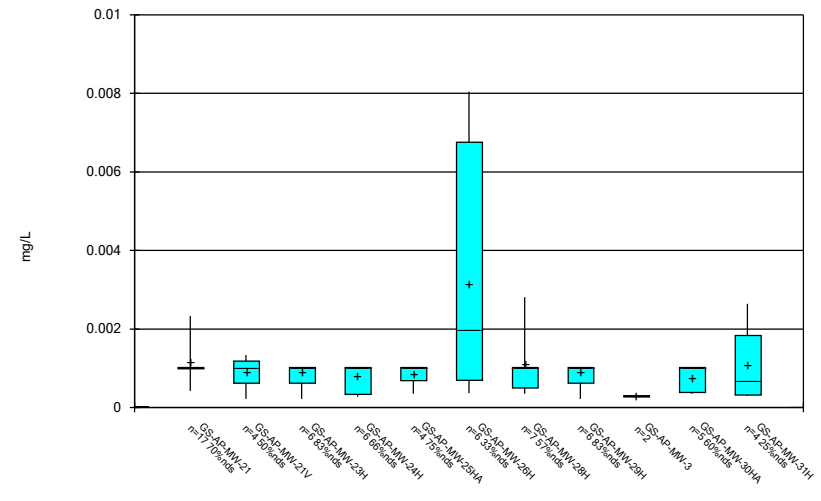
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Box & Whiskers Plot



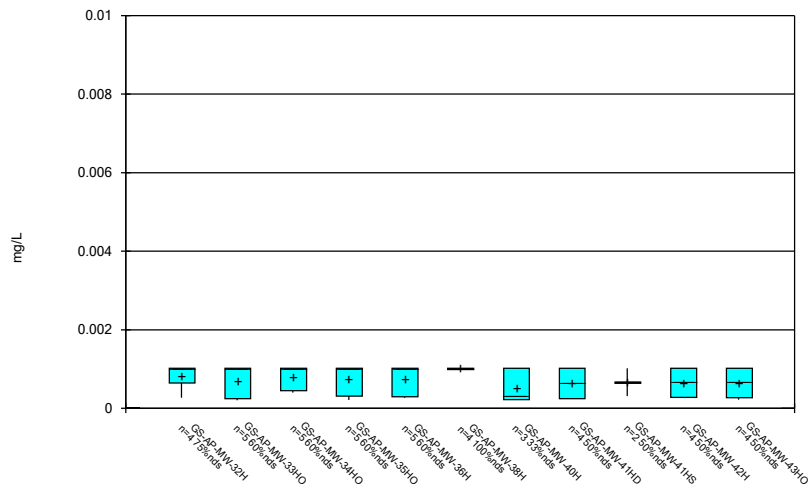
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Box & Whiskers Plot



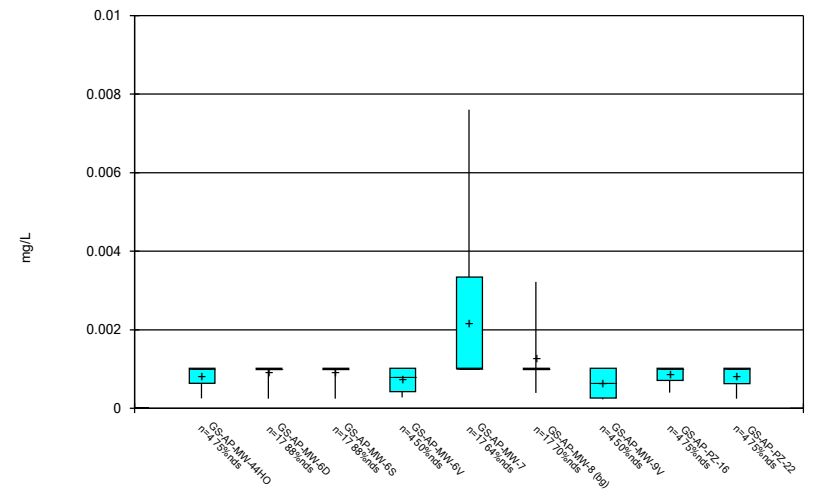
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Box & Whiskers Plot



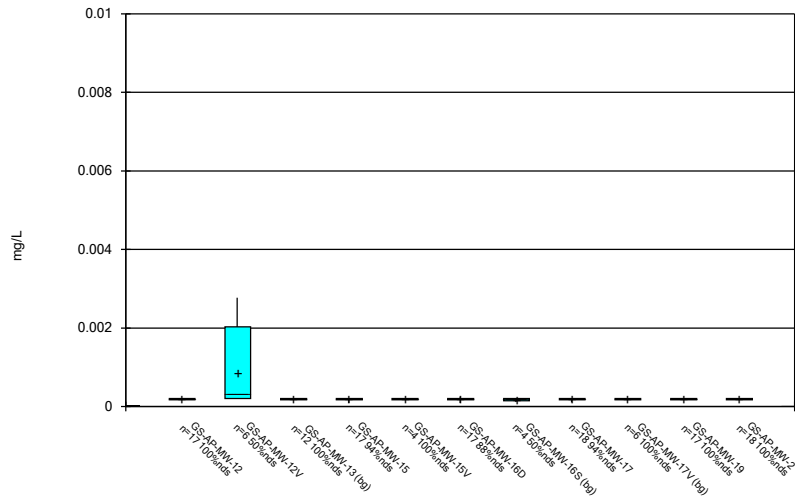
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Box & Whiskers Plot



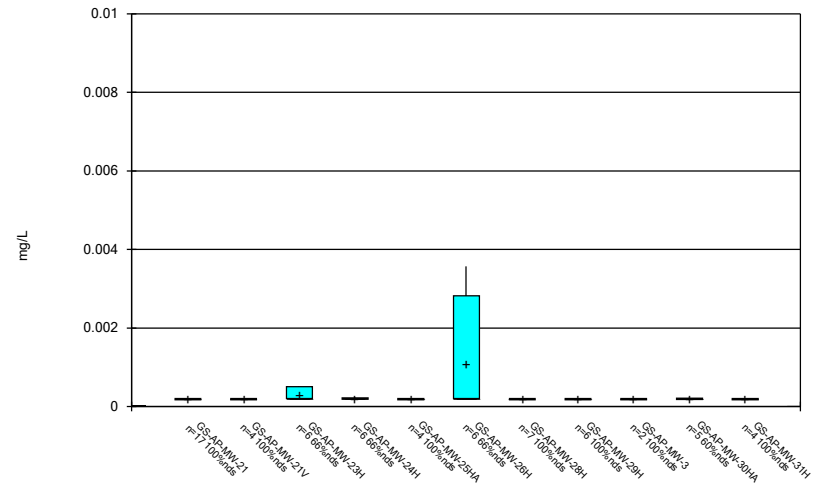
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Box & Whiskers Plot



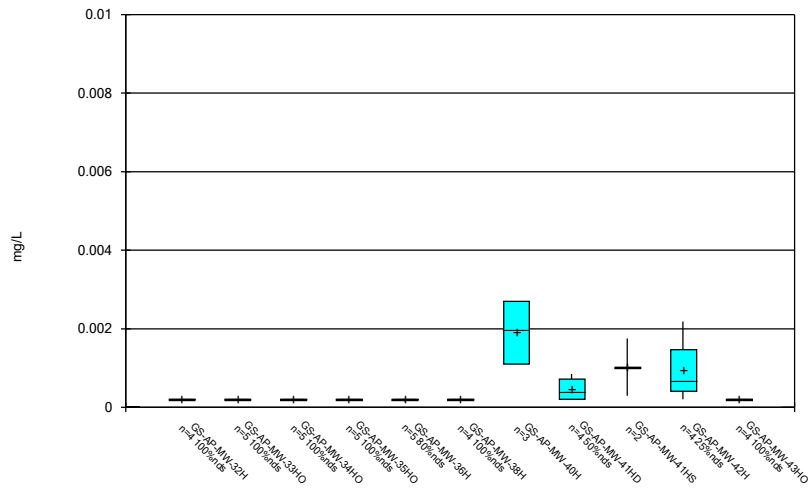
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Box & Whiskers Plot



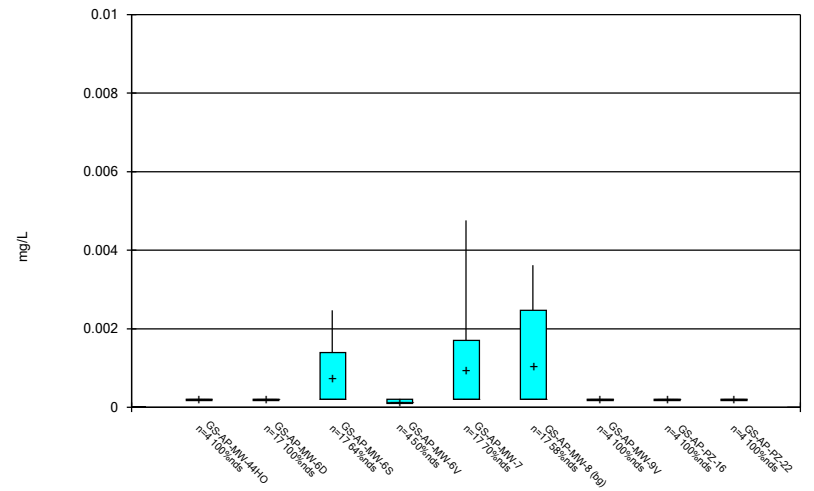
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Box & Whiskers Plot



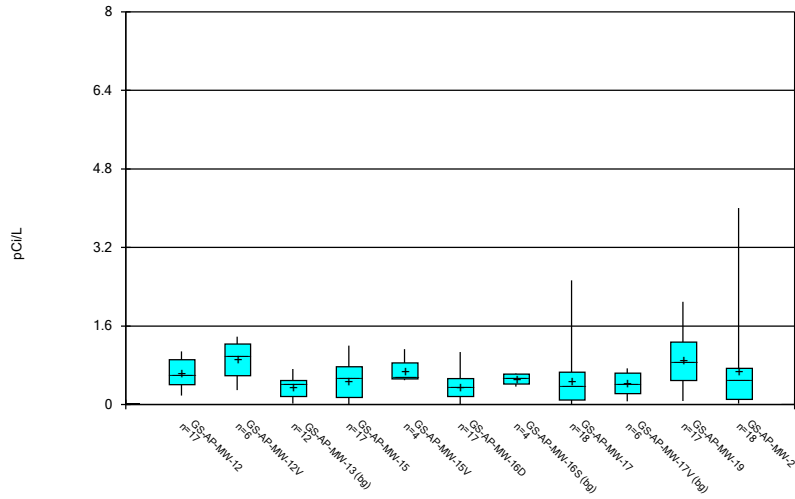
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Box & Whiskers Plot



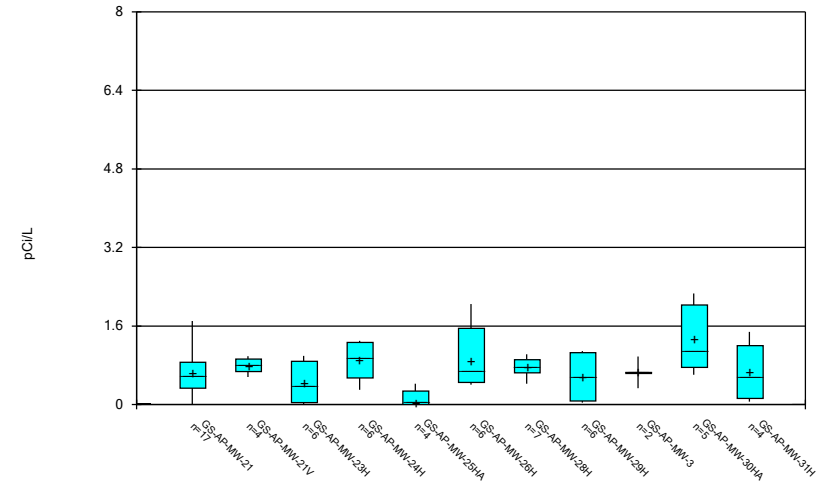
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Box & Whiskers Plot



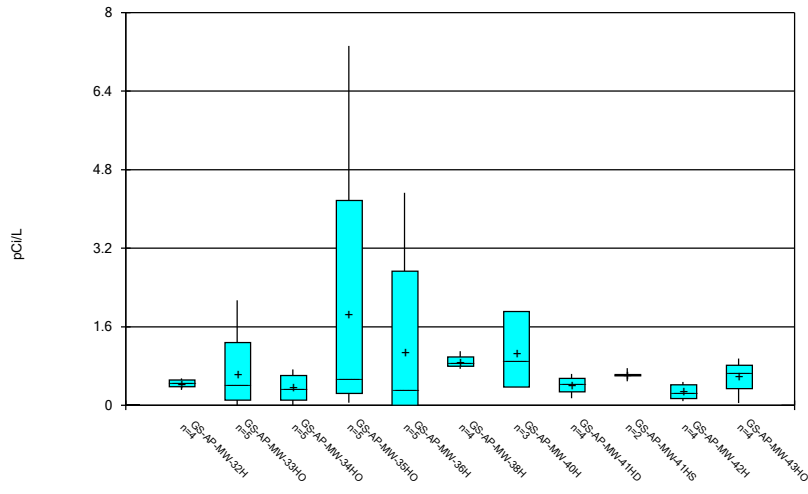
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Box & Whiskers Plot



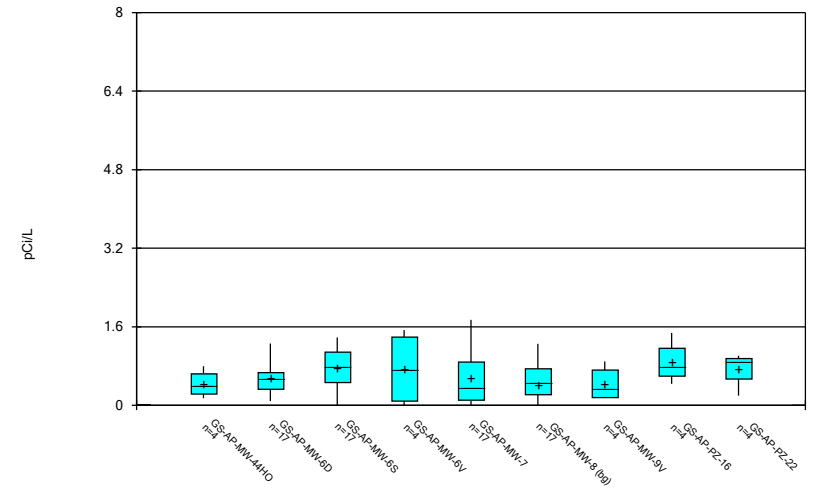
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Box & Whiskers Plot



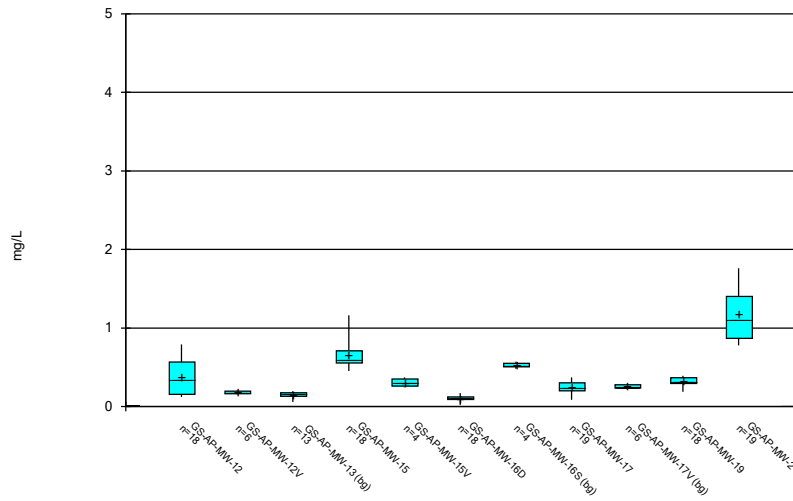
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Box & Whiskers Plot



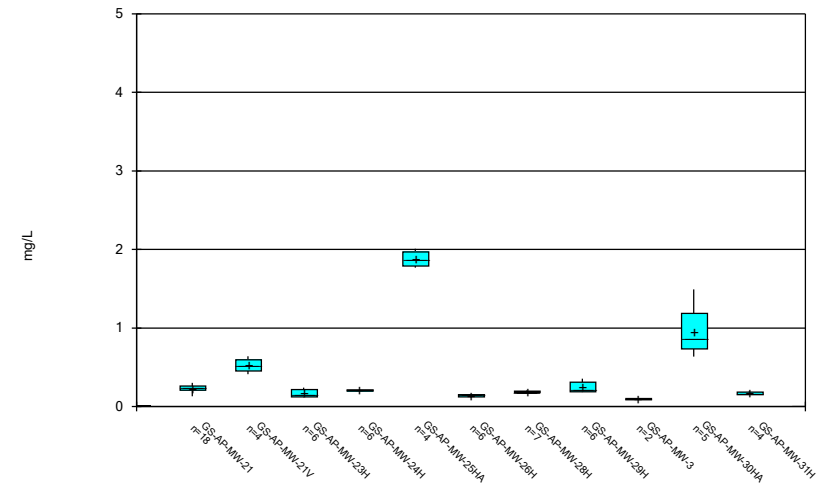
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



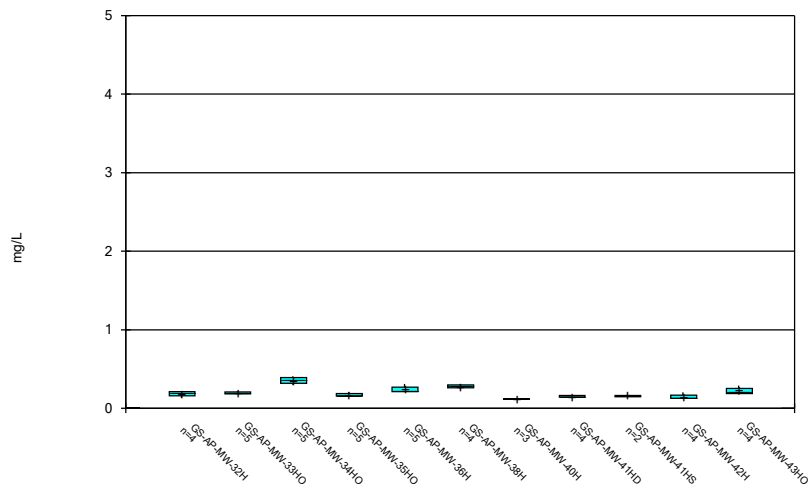
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Box & Whiskers Plot



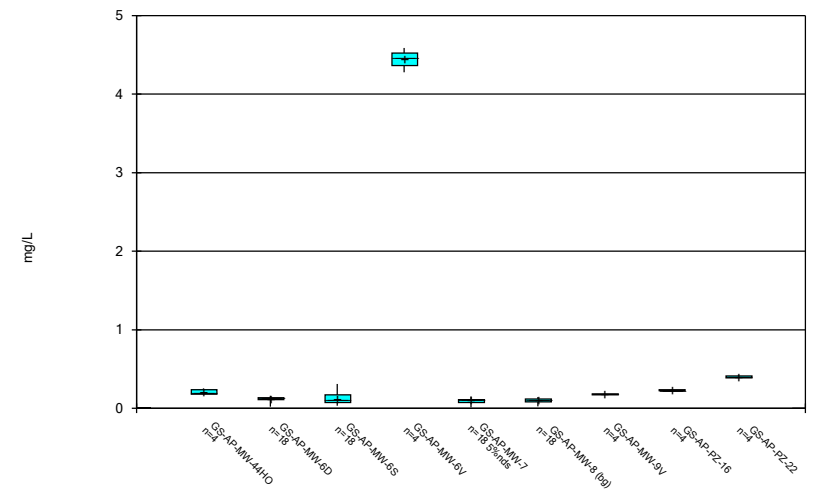
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Box & Whiskers Plot



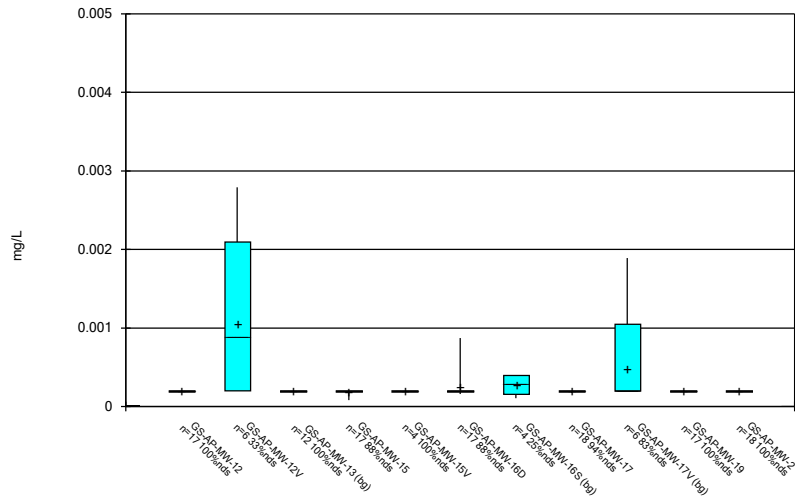
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Box & Whiskers Plot



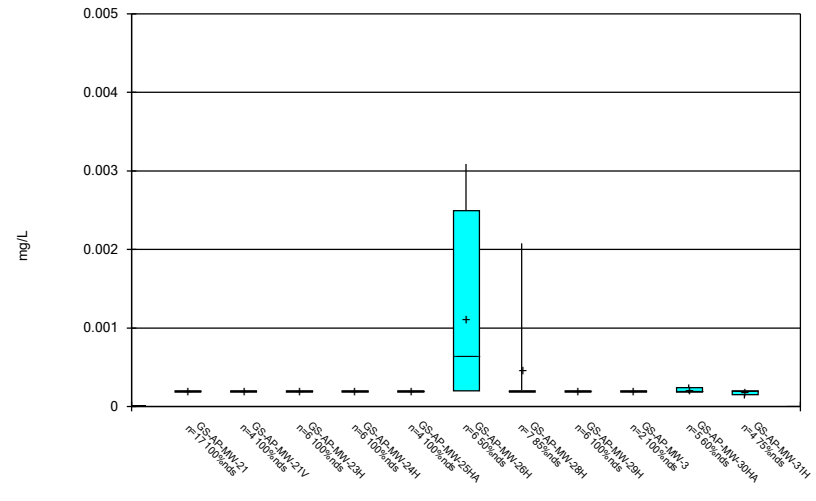
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Box & Whiskers Plot



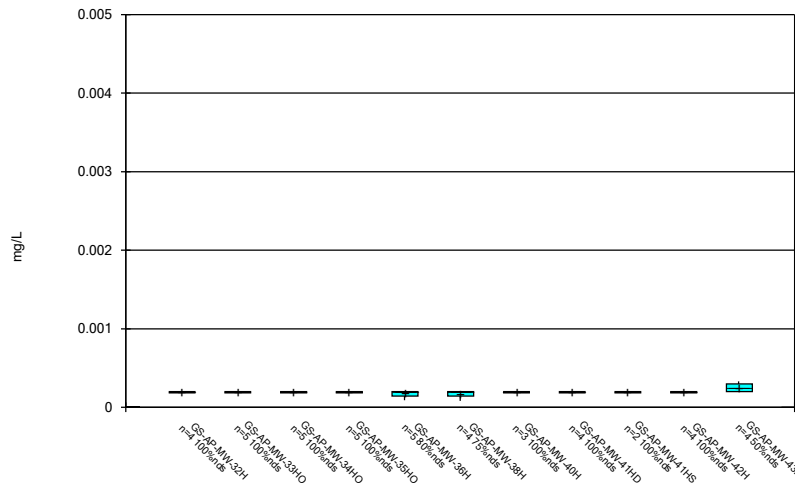
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Box & Whiskers Plot



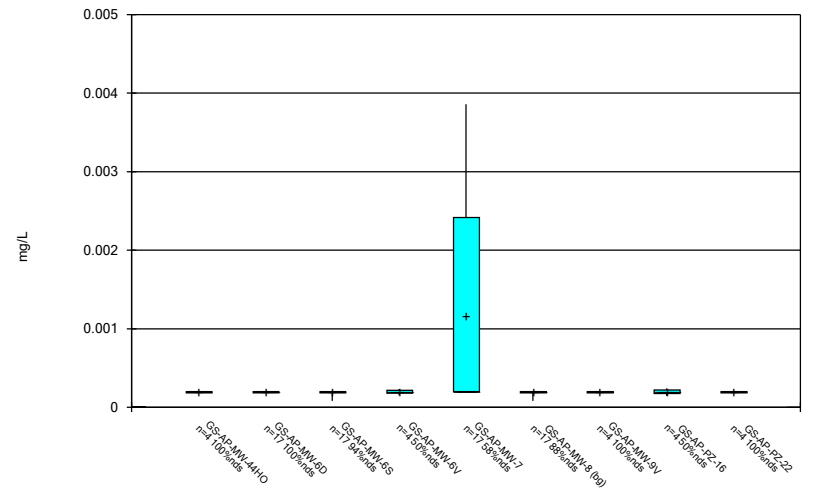
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Box & Whiskers Plot



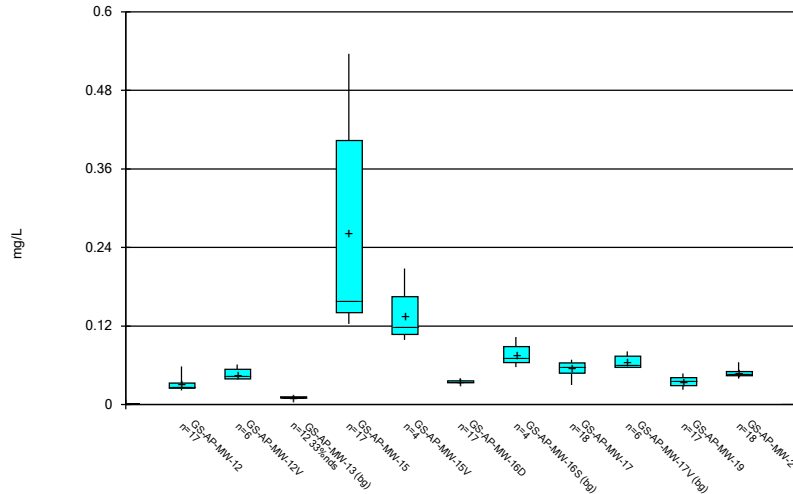
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Box & Whiskers Plot



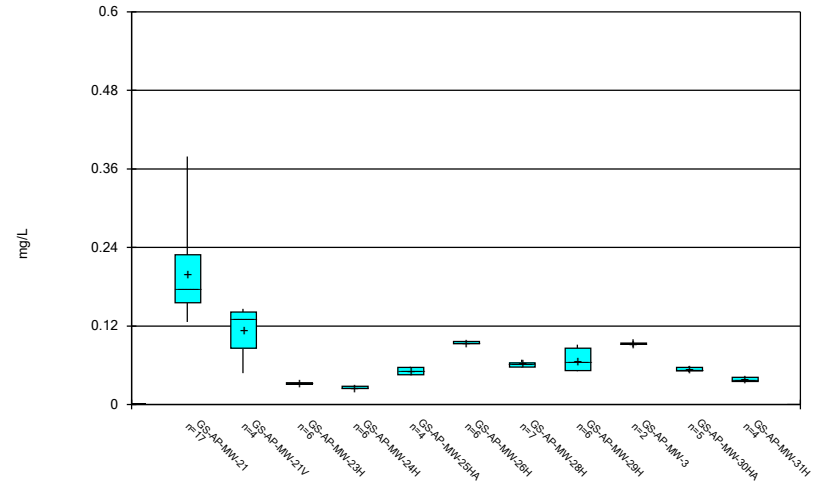
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Box & Whiskers Plot



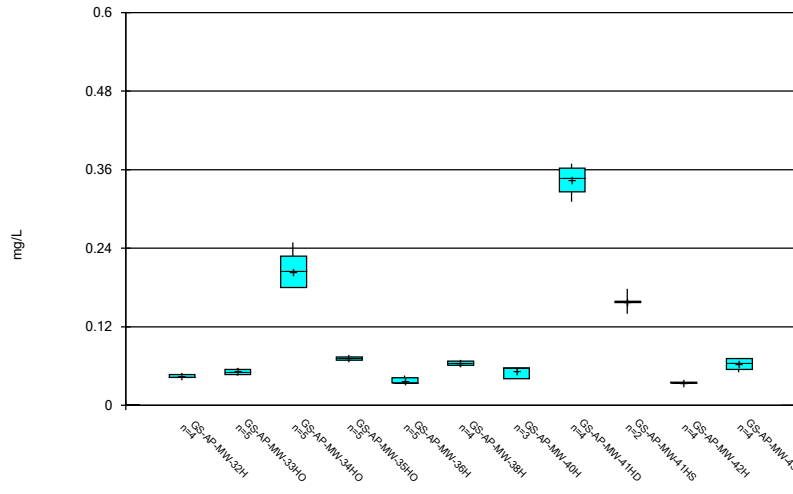
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Box & Whiskers Plot



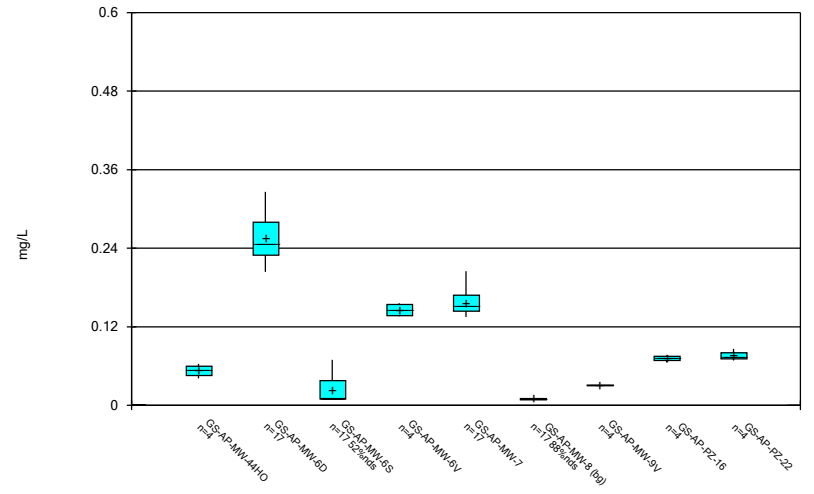
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Box & Whiskers Plot



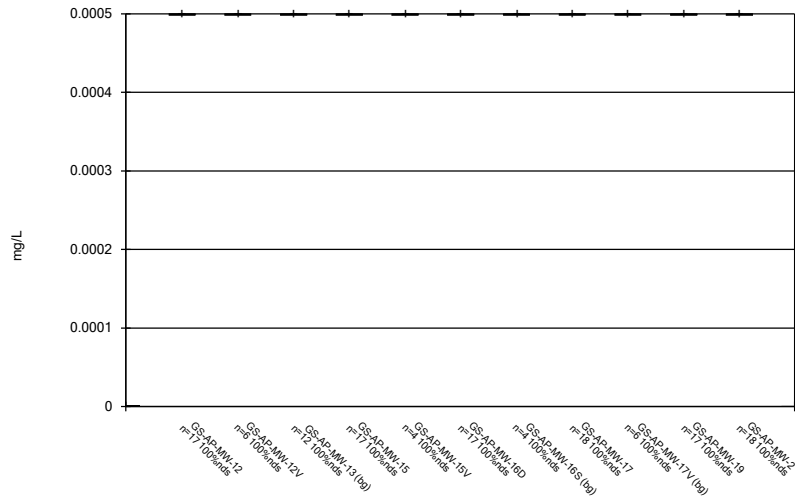
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Box & Whiskers Plot



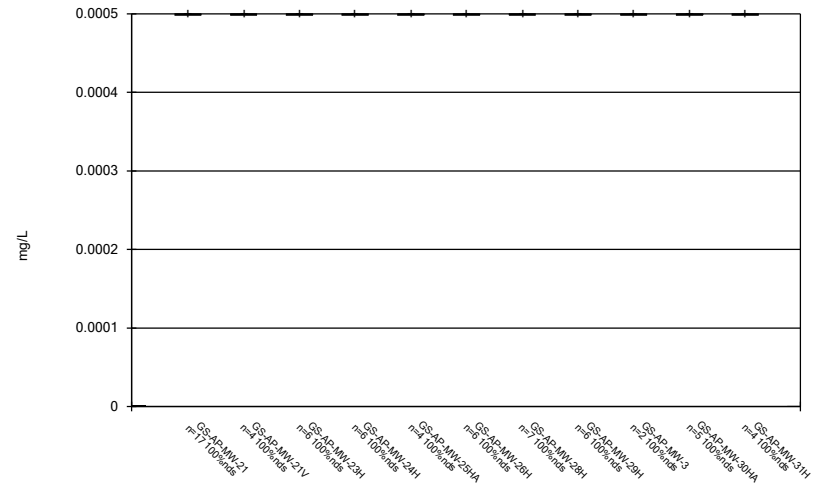
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Box & Whiskers Plot



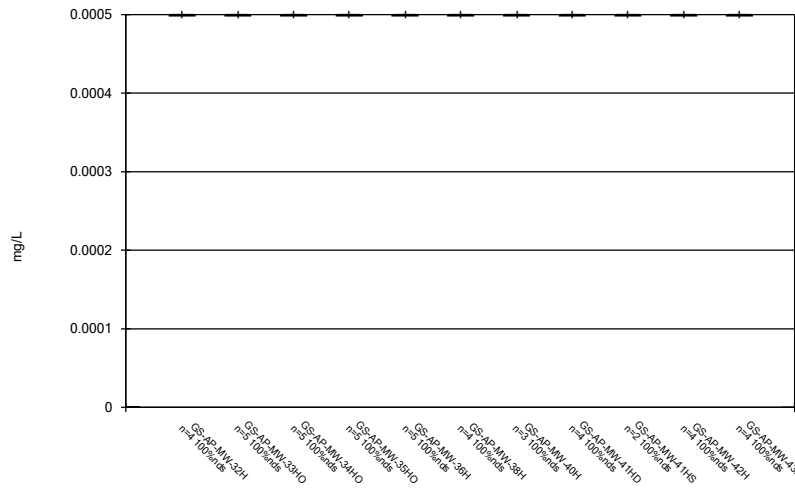
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



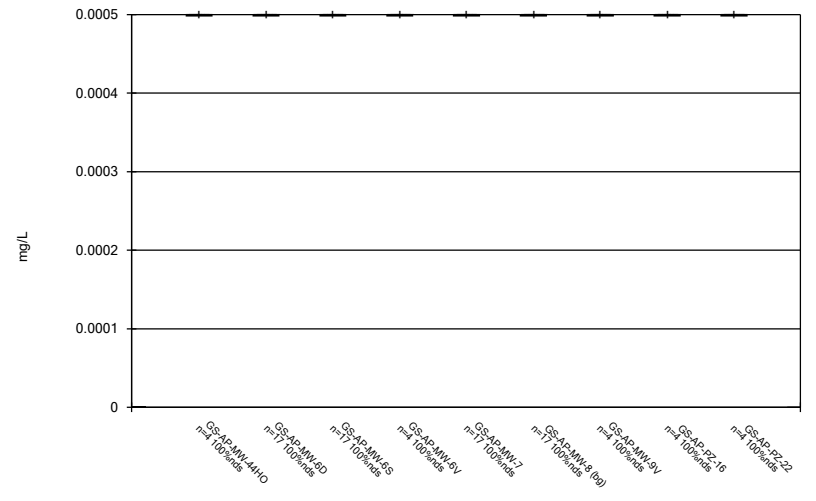
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Box & Whiskers Plot



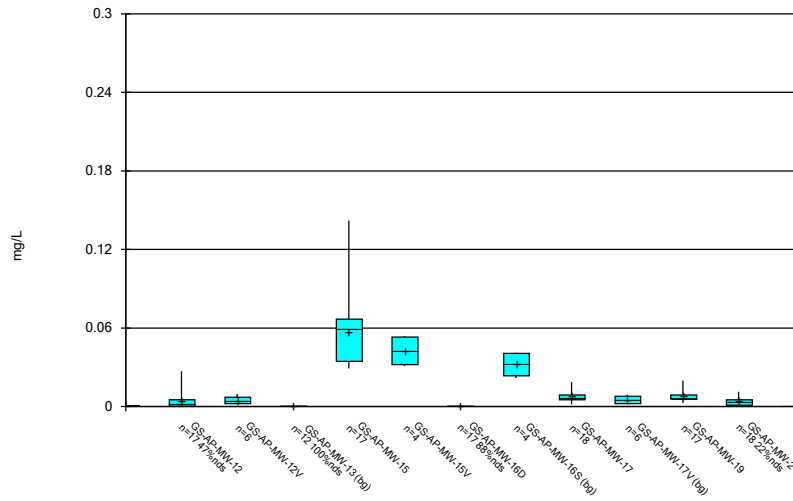
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Box & Whiskers Plot



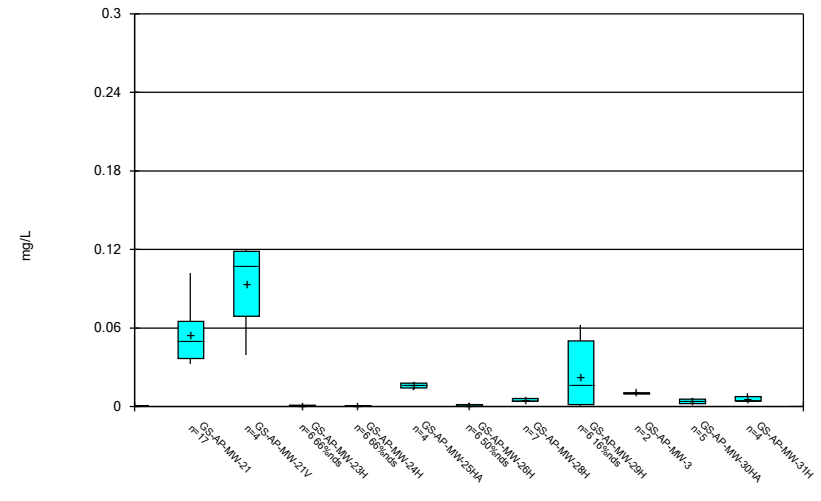
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Box & Whiskers Plot



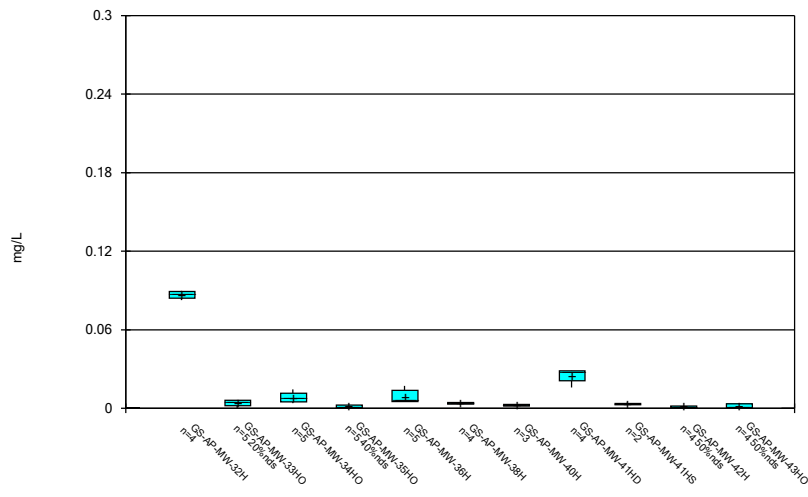
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Box & Whiskers Plot



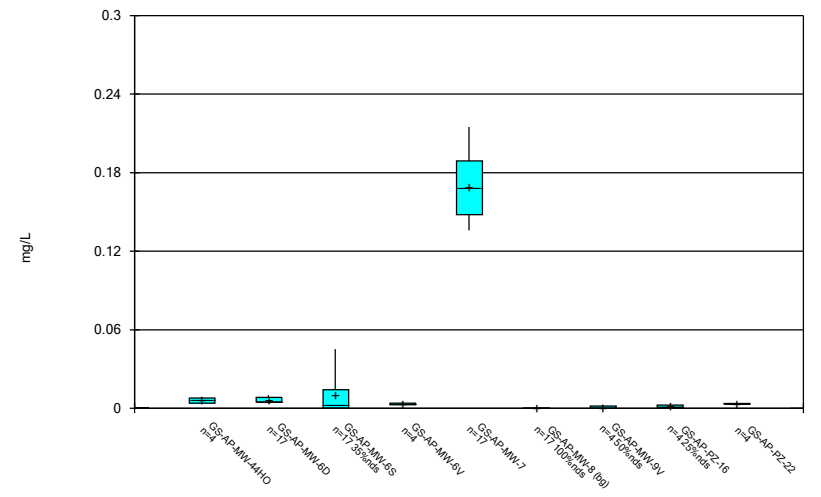
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Box & Whiskers Plot



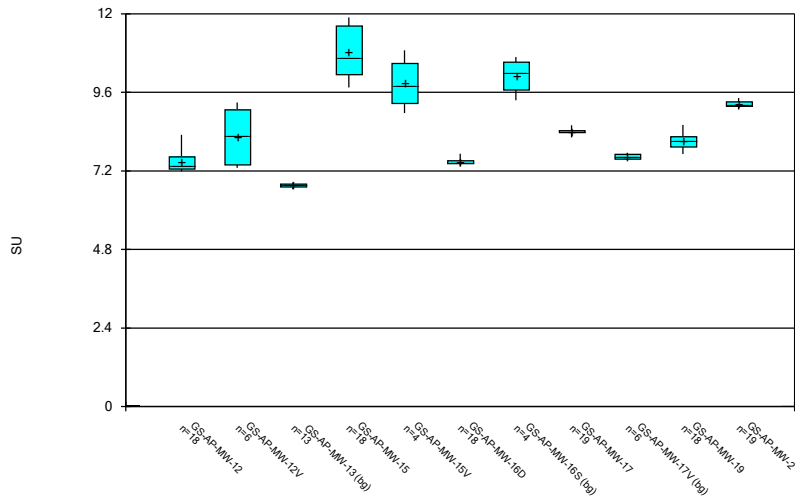
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Box & Whiskers Plot



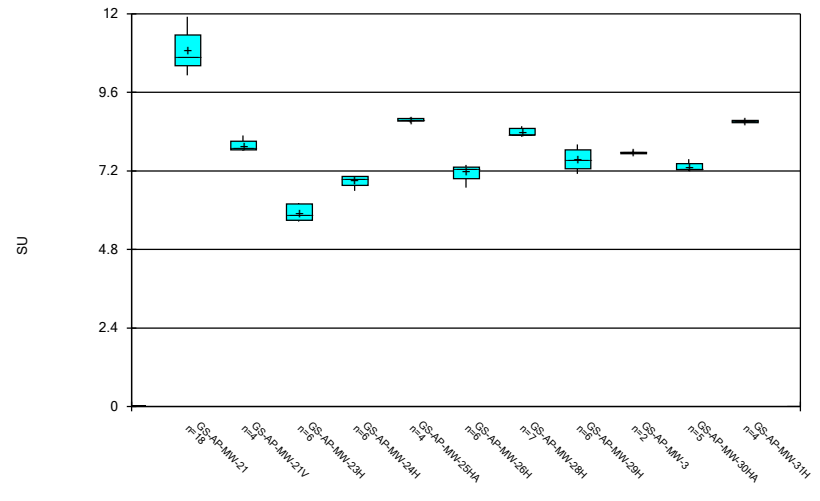
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Box & Whiskers Plot



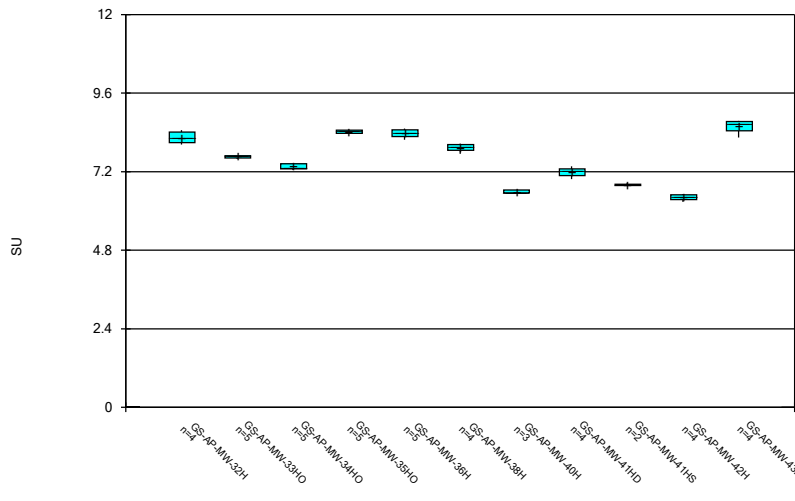
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Box & Whiskers Plot



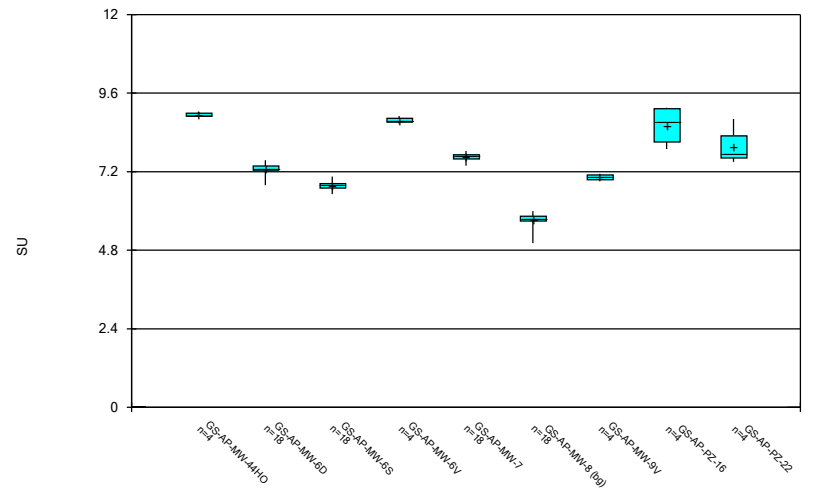
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Box & Whiskers Plot



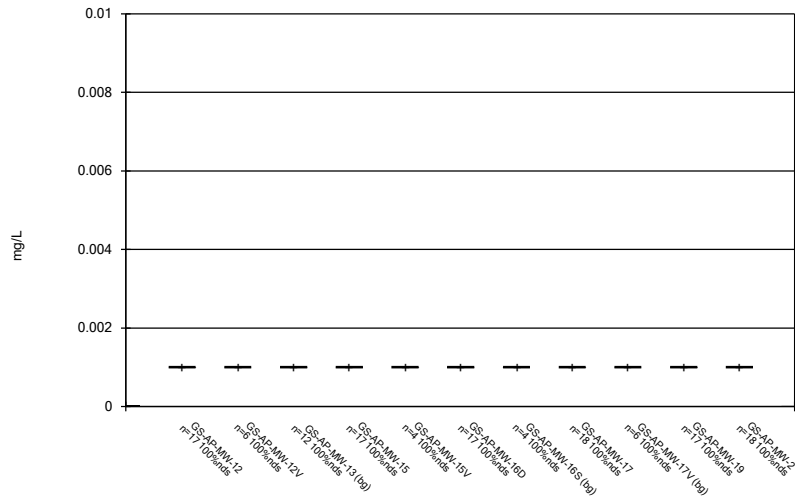
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Box & Whiskers Plot



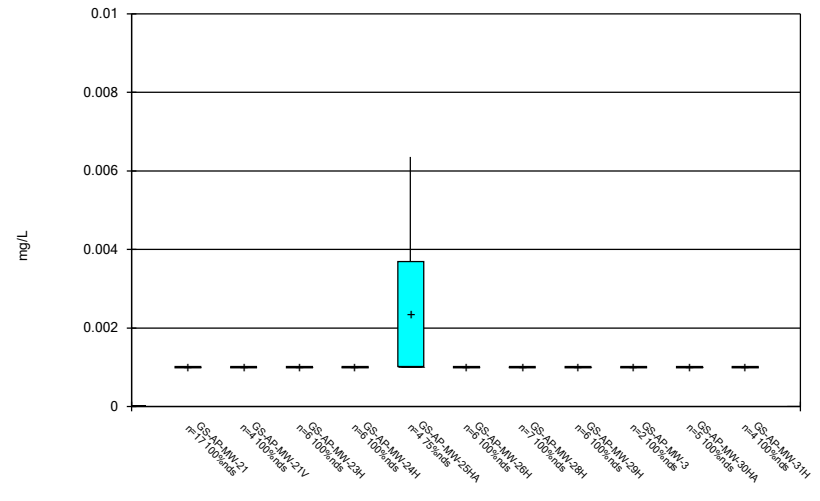
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Box & Whiskers Plot



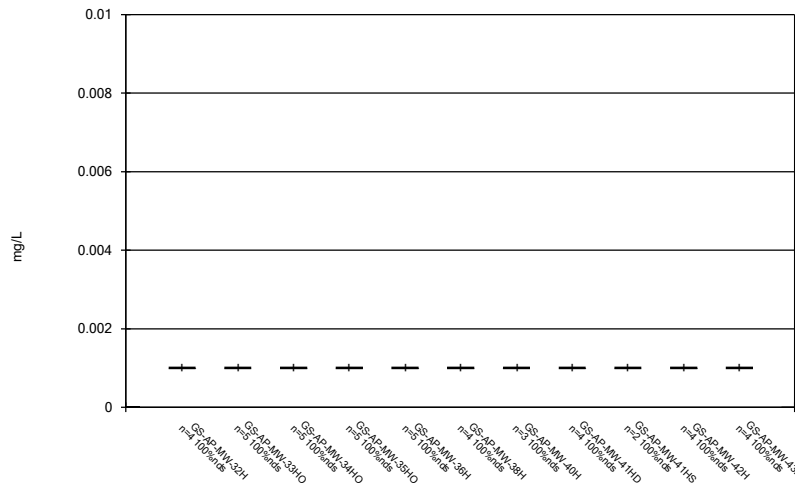
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Box & Whiskers Plot



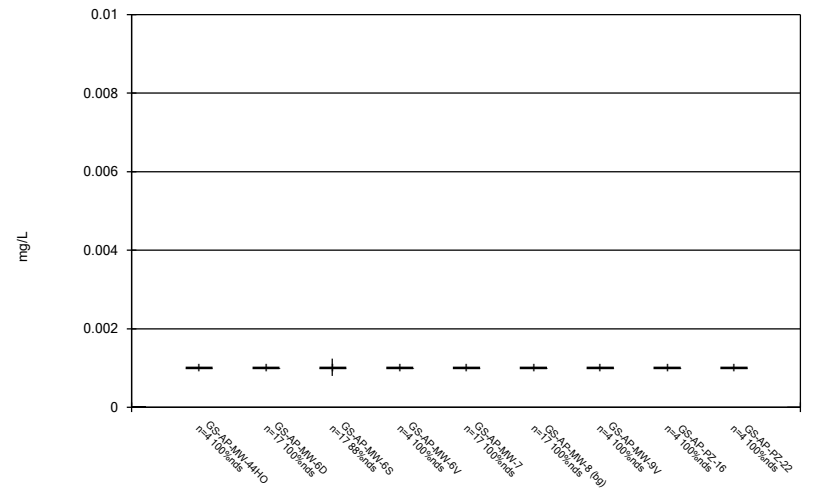
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Box & Whiskers Plot



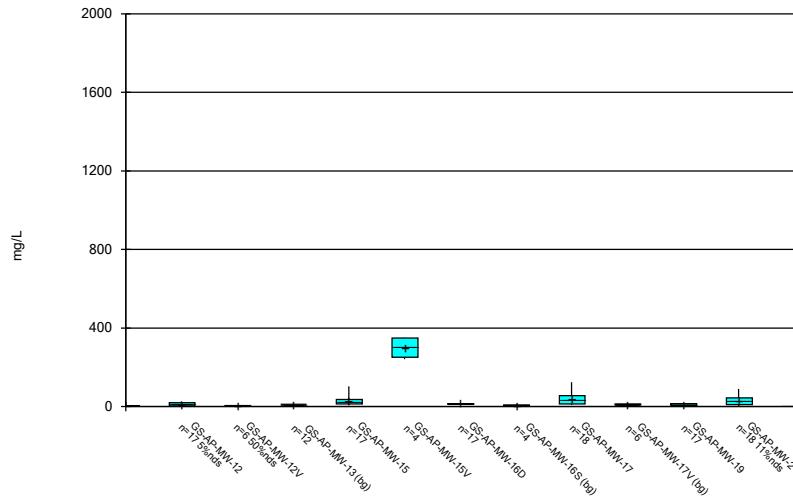
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Box & Whiskers Plot



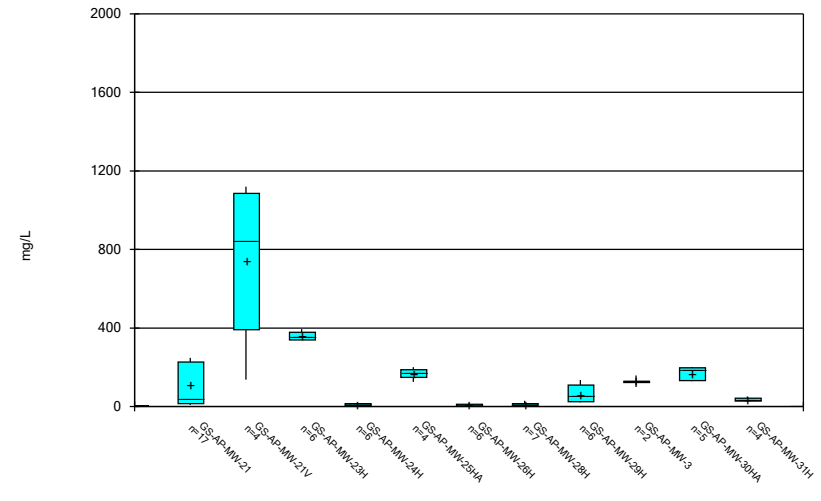
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Box & Whiskers Plot



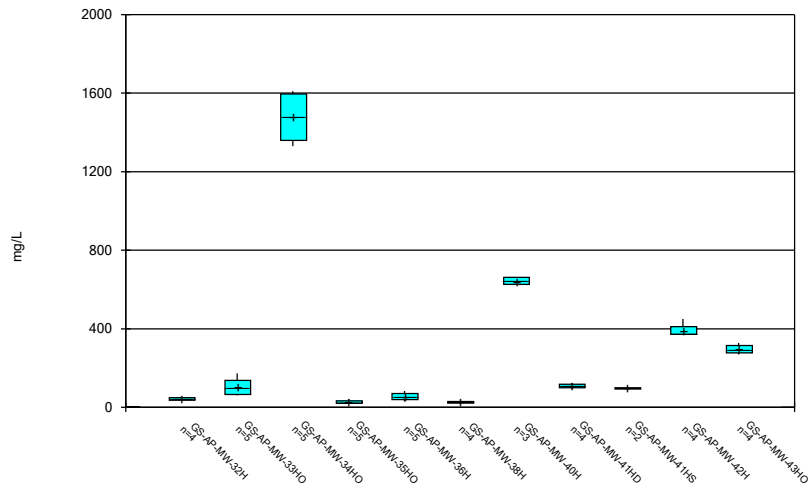
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Box & Whiskers Plot



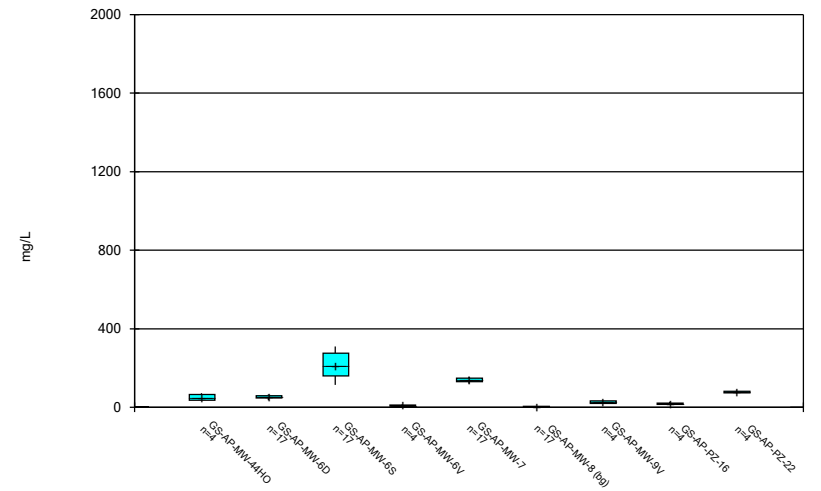
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Box & Whiskers Plot



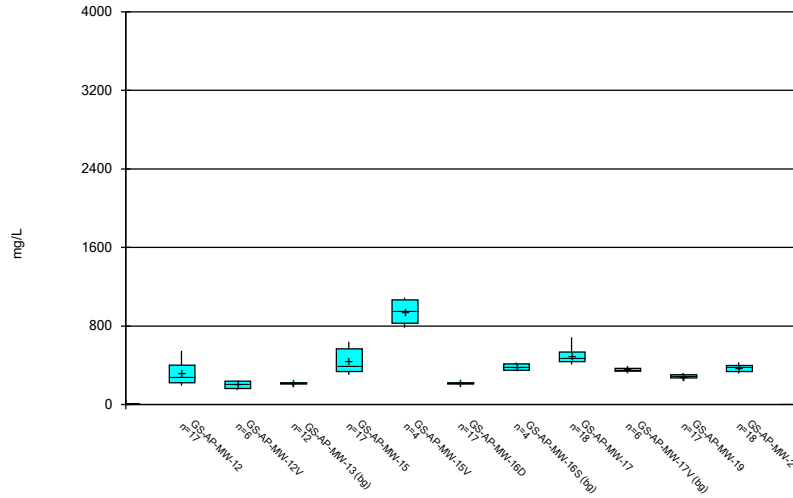
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Box & Whiskers Plot



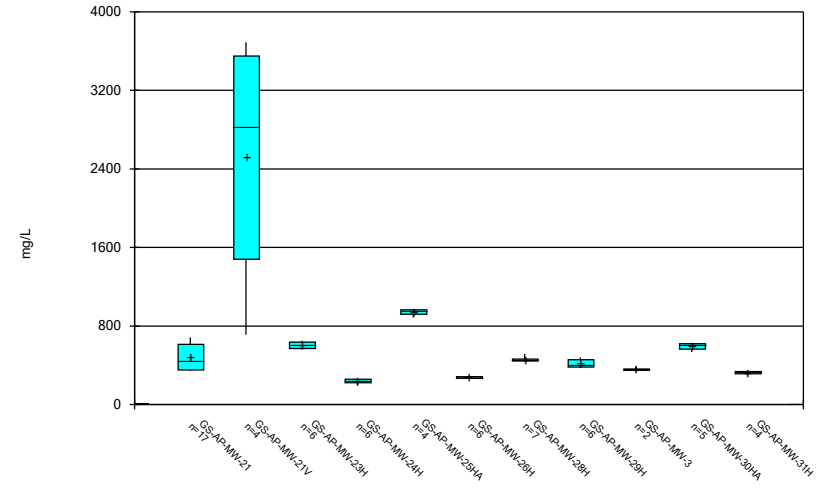
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Box & Whiskers Plot



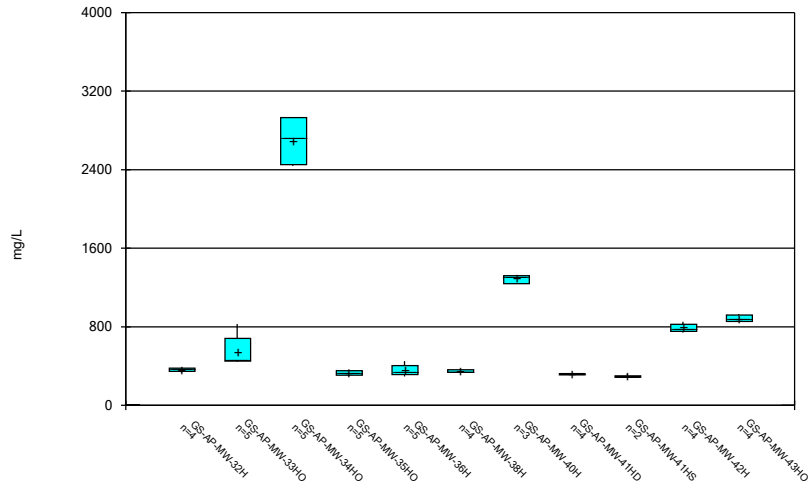
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Box & Whiskers Plot



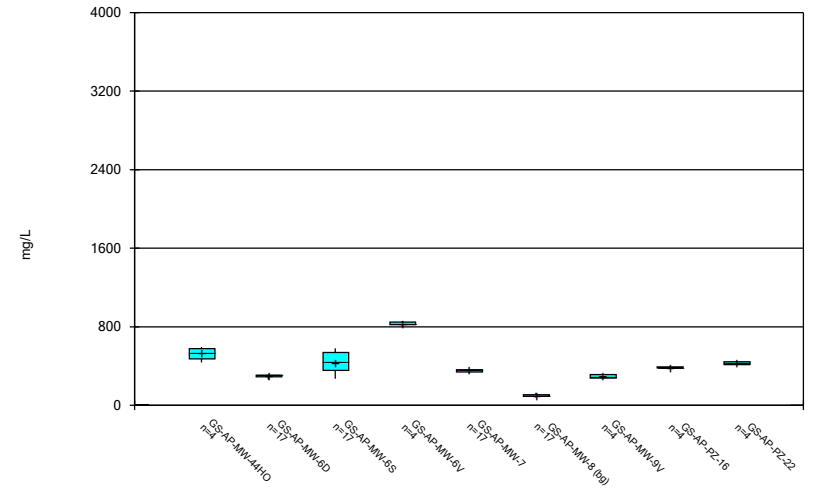
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Box & Whiskers Plot



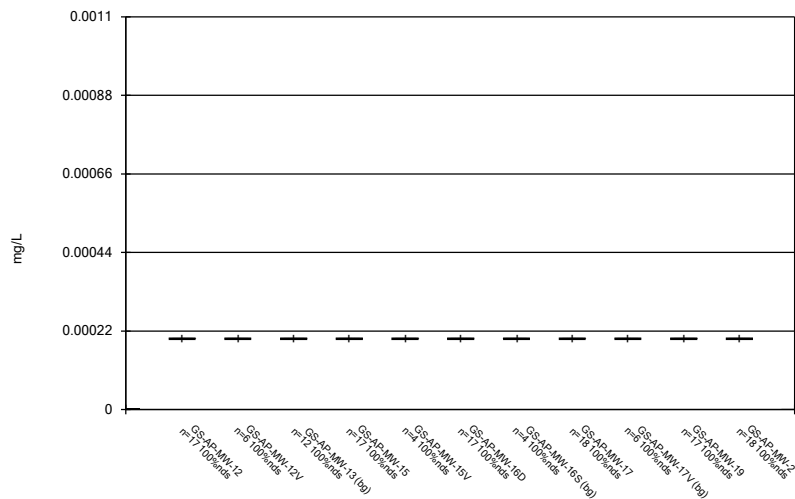
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Box & Whiskers Plot



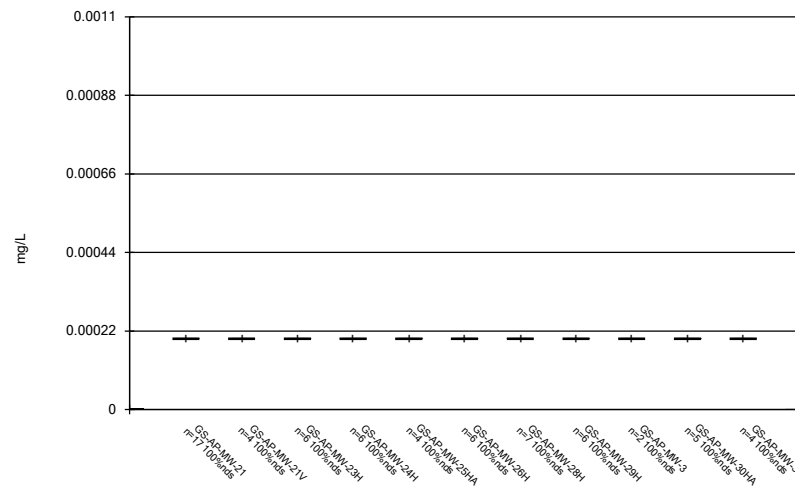
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Box & Whiskers Plot



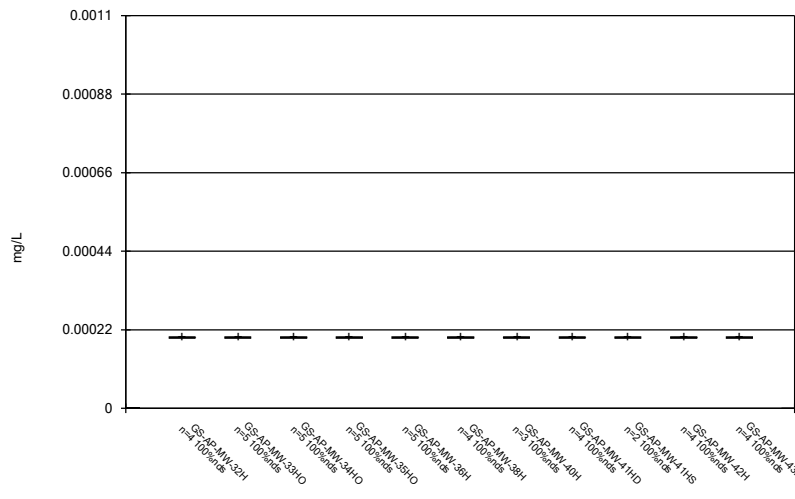
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Box & Whiskers Plot



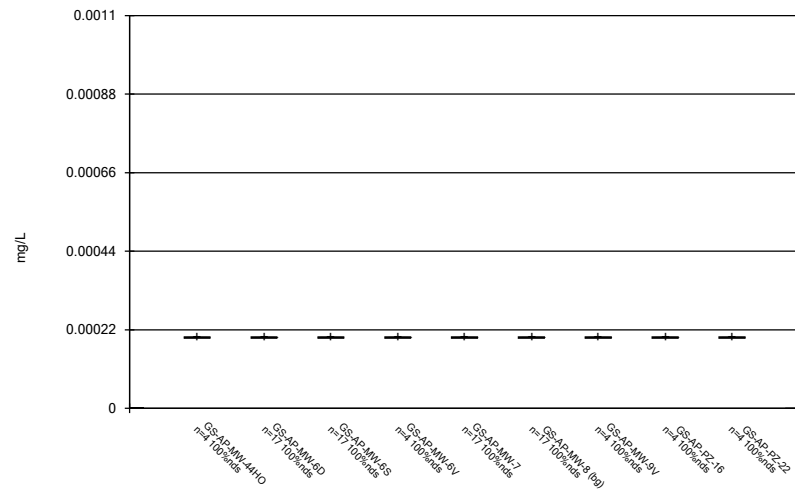
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 1/3/2022 11:28 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 1/3/2022 11:28 PM
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

FIGURE C.

Outlier Summary

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:40 PM

GS-AP-MW-21 Boron (mg/L)

8/2/2016

0.176 (o)

FIGURE D.

Interwell Prediction Limit Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:43 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	8/4/2021	0.117	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	7/27/2021	1.29	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1015	n/a	7/27/2021	0.873	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	8/9/2021	1.62	Yes	35	n/a	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	8/10/2021	54.8	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	7/27/2021	55.5	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	7/27/2021	52.6	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.182	n/a	8/3/2021	6.22	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.182	n/a	8/3/2021	5.88	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.182	n/a	8/10/2021	4.83	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.182	n/a	8/4/2021	7.25	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.182	n/a	8/4/2021	54.8	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.182	n/a	7/27/2021	11.1	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	4.182	n/a	7/27/2021	17	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.182	n/a	8/9/2021	7.03	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-9V	4.182	n/a	8/10/2021	18.8	Yes	35	3.342	0.3964	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.277	n/a	8/3/2021	0.615	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.277	n/a	8/3/2021	0.3	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.277	n/a	8/10/2021	0.283	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.277	n/a	8/4/2021	0.932	Yes	37	0.1394	0.06522	0	None	No	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-12	7.76	5.02	8/9/2021	7.98	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.02	8/3/2021	11.56	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.02	8/3/2021	8.6	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-2	7.76	5.02	8/4/2021	9.08	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.02	8/4/2021	10.95	Yes	37	n/a	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	8/9/2021	17.3	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	8/4/2021	16.8	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	8/4/2021	231	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	7/27/2021	64.4	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	15.2	n/a	7/27/2021	114	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	8/9/2021	133	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9V	15.2	n/a	8/10/2021	32.7	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	8/3/2021	632	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	8/3/2021	435	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	8/4/2021	594	Yes	35	n/a	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2

Interwell Prediction Limit Summary - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-12	0.1015	n/a	8/9/2021	0.1015ND	No	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-15	0.1015	n/a	8/3/2021	0.0491J	No	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-16D	0.1015	n/a	8/9/2021	0.1015ND	No	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-17	0.1015	n/a	8/3/2021	0.0729J	No	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-19	0.1015	n/a	8/10/2021	0.1015ND	No	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-2	0.1015	n/a	8/4/2021	0.117	Yes	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-21	0.1015	n/a	8/4/2021	0.0993J	No	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1015	n/a	7/27/2021	1.29	Yes	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1015	n/a	7/27/2021	0.873	Yes	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1015	n/a	8/9/2021	1.62	Yes	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-9V	0.1015	n/a	8/10/2021	0.1015ND	No	35	n/a	n/a	80	n/a	n/a	0.001407	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-12	48.1	n/a	8/9/2021	40.2	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-15	48.1	n/a	8/3/2021	3.55	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-16D	48.1	n/a	8/9/2021	33.2	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-17	48.1	n/a	8/3/2021	2.17	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	8/10/2021	54.8	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-2	48.1	n/a	8/4/2021	0.564	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-21	48.1	n/a	8/4/2021	1.76	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	7/27/2021	55.5	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	7/27/2021	52.6	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-7	48.1	n/a	8/9/2021	11.6	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-9V	48.1	n/a	8/10/2021	45.1	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-12	4.182	n/a	8/9/2021	2.75	No	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-15	4.182	n/a	8/3/2021	6.22	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-16D	4.182	n/a	8/9/2021	3.08	No	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	4.182	n/a	8/3/2021	5.88	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	4.182	n/a	8/10/2021	4.83	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-2	4.182	n/a	8/4/2021	7.25	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	4.182	n/a	8/4/2021	54.8	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	4.182	n/a	7/27/2021	11.1	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	4.182	n/a	7/27/2021	17	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	4.182	n/a	8/9/2021	7.03	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-9V	4.182	n/a	8/10/2021	18.8	Yes	35	3.342	0.3964	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-12	0.277	n/a	8/9/2021	0.139	No	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.277	n/a	8/3/2021	0.615	Yes	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-16D	0.277	n/a	8/9/2021	0.131	No	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.277	n/a	8/3/2021	0.3	Yes	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.277	n/a	8/10/2021	0.283	Yes	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.277	n/a	8/4/2021	0.932	Yes	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-21	0.277	n/a	8/4/2021	0.24	No	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6D	0.277	n/a	7/27/2021	0.127	No	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6S	0.277	n/a	7/27/2021	0.2	No	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-7	0.277	n/a	8/9/2021	0.11	No	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-9V	0.277	n/a	8/10/2021	0.166	No	37	0.1394	0.06522	0	None	No	0.0006839	Param Inter 1 of 2
pH (SU)	GS-AP-MW-12	7.76	5.02	8/9/2021	7.98	Yes	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	7.76	5.02	8/3/2021	11.56	Yes	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-16D	7.76	5.02	8/9/2021	7.53	No	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	7.76	5.02	8/3/2021	8.6	Yes	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-19	7.76	5.02	8/10/2021	7.72	No	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-2	7.76	5.02	8/4/2021	9.08	Yes	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	7.76	5.02	8/4/2021	10.95	Yes	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6D	7.76	5.02	7/27/2021	6.79	No	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6S	7.76	5.02	7/27/2021	6.67	No	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	7.76	5.02	8/9/2021	7.49	No	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-9V	7.76	5.02	8/10/2021	7.12	No	37	n/a	n/a	0	n/a	n/a	0.00257	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	15.2	n/a	8/9/2021	17.3	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	15.2	n/a	8/3/2021	9.77	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-16D	15.2	n/a	8/9/2021	14.4	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	15.2	n/a	8/3/2021	7.58	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	15.2	n/a	8/10/2021	15.2	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	15.2	n/a	8/4/2021	16.8	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	15.2	n/a	8/4/2021	231	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	15.2	n/a	7/27/2021	64.4	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	15.2	n/a	7/27/2021	114	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	15.2	n/a	8/9/2021	133	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9V	15.2	n/a	8/10/2021	32.7	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-12	368	n/a	8/9/2021	219	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	368	n/a	8/3/2021	632	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2

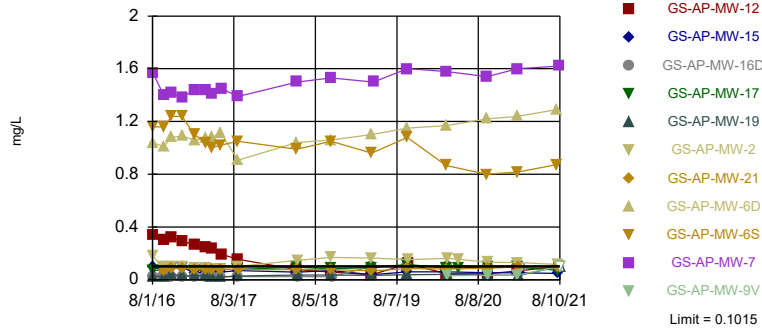
Interwell Prediction Limit Summary - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:43 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
TDS (mg/L)	GS-AP-MW-16D	368	n/a	8/9/2021	207	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	368	n/a	8/3/2021	435	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-19	368	n/a	8/10/2021	307	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	368	n/a	8/4/2021	316	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	368	n/a	8/4/2021	594	Yes	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	368	n/a	7/27/2021	262	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6S	368	n/a	7/27/2021	273	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	368	n/a	8/9/2021	340	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-9V	368	n/a	8/10/2021	309	No	35	n/a	n/a	0	n/a	n/a	0.001407	NP Inter (normality) 1 of 2

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-6S, GS-AP-MW-7

Prediction Limit
Interwell Non-parametric

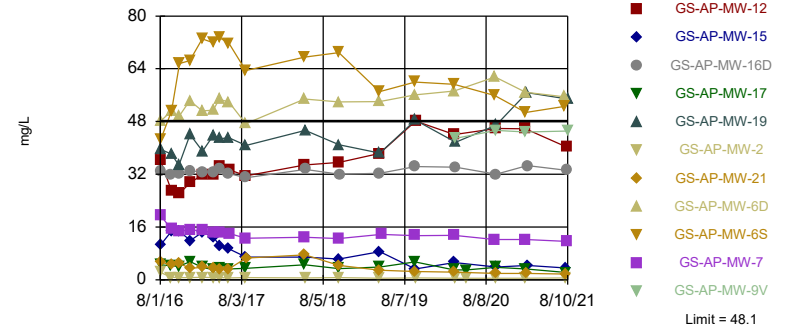


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 35 background values. 80% NDs. Annual per-constituent alpha = 0.0305. Individual comparison alpha = 0.001407 (1 of 2). Comparing 11 points to limit.

Constituent: Boron Analysis Run 1/4/2022 9:41 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-19, GS-AP-MW-6D, GS-AP-MW-6S

Prediction Limit
Interwell Non-parametric

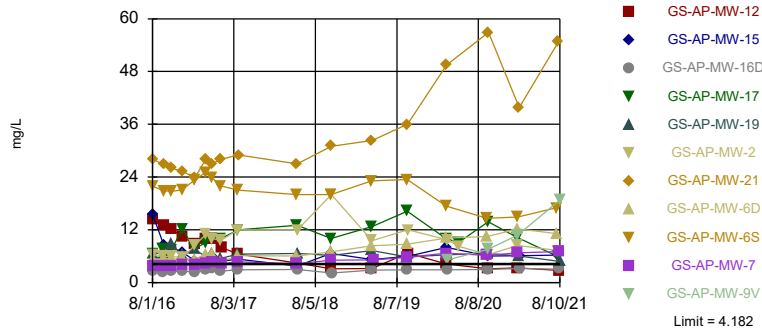


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. Annual per-constituent alpha = 0.0305. Individual comparison alpha = 0.001407 (1 of 2). Comparing 11 points to limit.

Constituent: Calcium Analysis Run 1/4/2022 9:41 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-6S...

Prediction Limit
Interwell Parametric



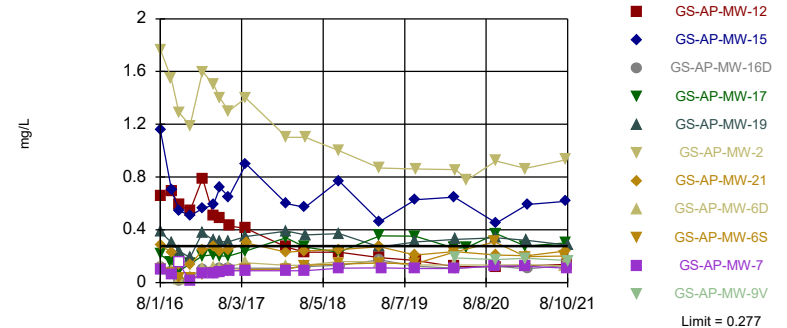
Background Data Summary: Mean=3.342, Std. Dev.=0.3964, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9784, critical = 0.91. Kappa = 2.119 (c=7, w=11, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006839. Comparing 11 points to limit.

Constituent: Chloride Analysis Run 1/4/2022 9:41 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Hollow symbols indicate censored values.

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-19, GS-AP-MW-2

Prediction Limit
Interwell Parametric

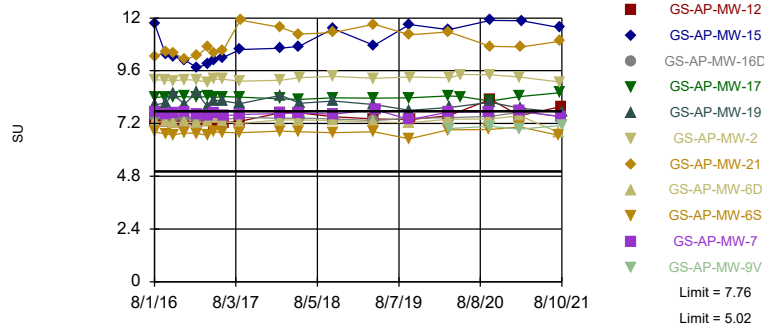


Background Data Summary: Mean=0.1394, Std. Dev.=0.06522, n=37. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9431, critical = 0.914. Kappa = 2.109 (c=7, w=11, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006839. Comparing 11 points to limit.

Constituent: Fluoride Analysis Run 1/4/2022 9:41 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limits: GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-2, GS-AP-MW-21

Prediction Limit
Interwell Non-parametric



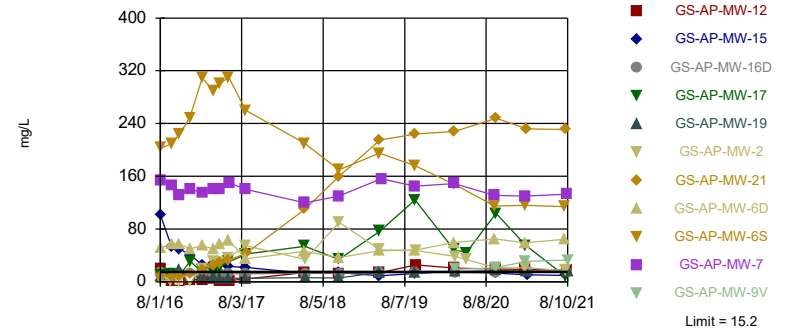
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 37 background values. Annual per-constituent alpha = 0.05578. Individual comparison alpha = 0.00257 (1 of 2). Comparing 11 points to limit.

Constituent: pH Analysis Run 1/4/2022 9:41 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Hollow symbols indicate censored values.

Exceeds Limit: GS-AP-MW-12, GS-AP-MW-2, GS-AP-MW-21, GS-AP-MW-6D, GS-AP-MW-6S, GS-AP-MW-7, GS-AP-MW-9V

Prediction Limit
Interwell Non-parametric

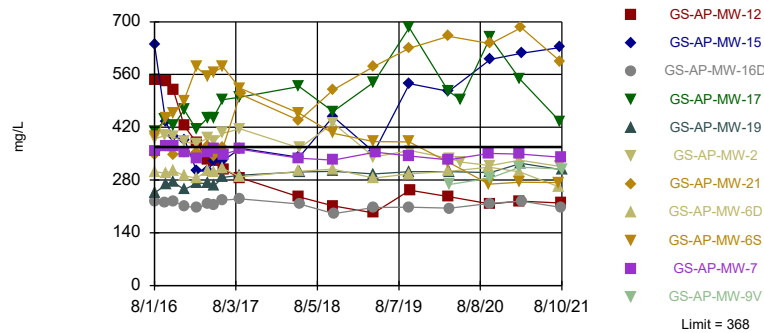


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. Annual per-constituent alpha = 0.0305. Individual comparison alpha = 0.001407 (1 of 2). Comparing 11 points to limit.

Constituent: Sulfate Analysis Run 1/4/2022 9:41 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-15, GS-AP-MW-17, GS-AP-MW-21

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 35 background values. Annual per-constituent alpha = 0.0305. Individual comparison alpha = 0.001407 (1 of 2). Comparing 11 points to limit.

Constituent: TDS Analysis Run 1/4/2022 9:41 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/4/2022 9:43 PM View: All

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-6S
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									
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	
9/22/2020	0.037 (J)		<0.1015		0.133				

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
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-6S
9/23/2020				0.0537 (J)					
2/1/2021					0.13				
2/2/2021		0.0946 (J)				1.6		<0.1015	
2/3/2021									0.817
2/8/2021	0.0336 (J)								
2/9/2021				0.0521 (J)					
2/10/2021			<0.1015						
7/27/2021									0.873
8/2/2021									
8/3/2021		0.0729 (J)		0.0491 (J)					
8/4/2021					0.117				
8/9/2021			<0.1015			1.62			
8/10/2021	<0.1015							<0.1015	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
 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-9V
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)	
4/16/2019	1.1	0.0385 (J)			
4/17/2019			0.0675 (J)		
4/23/2019					
9/23/2019	1.15				
9/24/2019			0.0843 (J)	0.0532 (J)	
9/25/2019		0.122			
3/16/2020					
3/17/2020	1.17				
3/18/2020		0.0449 (J)	0.0824 (J)		
3/23/2020				0.0316 (J)	
3/24/2020					
3/25/2020				0.0482 (J)	
5/12/2020					
5/13/2020					
9/16/2020					
9/17/2020	1.22				
9/21/2020					
9/22/2020					0.0348 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
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-9V
9/23/2020		0.0446 (J)	0.0871 (J)	0.0478 (J)	
2/1/2021		0.0672 (J)			
2/2/2021				0.0396 (J)	0.0358 (J)
2/3/2021	1.24				
2/8/2021			0.0991 (J)		
2/9/2021					
2/10/2021					
7/27/2021	1.29				
8/2/2021				0.0368 (J)	
8/3/2021					
8/4/2021			0.0993 (J)		
8/9/2021		<0.1015			
8/10/2021					<0.1015

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/4/2022 9:43 PM View: All

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-7	GS-AP-MW-21	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-12
8/1/2016	39.6	4.52	33	10.5					
8/2/2016					19.4	5.29	2.25	47.2	
8/3/2016									36.1
9/19/2016		4.3	31.7				0.724		
9/20/2016				14.7				46.3	27
9/21/2016	38.1				15.4	4.51			
10/24/2016	34.7	4.02			14.8		0.635		
10/25/2016			32.2	14.7		4.92		46.6	26.1
10/26/2016									
12/12/2016					15				
12/13/2016	44	5.5	33.1				0.714	43.1	29.4
12/14/2016				11.9		3.5			
2/6/2017		3.79			14.9				
2/7/2017	39								
2/8/2017			32.7	14.4		3.75	0.722	47.5	31.9
3/27/2017		3.13							
3/28/2017	43.9			12.9	14.3	3.63			
3/29/2017			32.7					46.8	31.8
3/30/2017							0.686		
4/24/2017		3.41			14.5				
4/26/2017	42.8		33.8	10.4		3.3	0.646	48.1	34.6
6/5/2017		3.32							
6/6/2017	43.1		32.2	9.41		3.24	0.569		
6/7/2017					14.1			44.4	33.4
8/21/2017					12.6		0.634		
8/22/2017	40.7	3.52	30.9	6.89				42.9	31.5
8/23/2017						6.6			
5/14/2018									
5/15/2018		4.53		6.86	12.9	7.57		44.3	34.8
5/16/2018	45.3		33.5				0.588		
10/15/2018		3.38		6.28	12.5				
10/16/2018	40.9					4.4	0.714		35.6
10/17/2018			32					41.8	
2/20/2019									
4/16/2019								38.6	38.3
4/17/2019	38.4	3.86	32.3	8.53		2.88	0.511		
4/23/2019					13.8				
9/23/2019		5.43							
9/24/2019	48.4		34.3	3.26	13.4	2.47			
9/25/2019							0.581		48.1
3/16/2020		3							
3/17/2020					13.5				
3/18/2020				5.25		2.35			44
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							
9/22/2020	46.9		32				0.503		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
8/1/2016					
8/2/2016					
8/3/2016	6.85	42.5	48.1		
9/19/2016					
9/20/2016		51.1	51.2		
9/21/2016	11.7				
10/24/2016			49.5		
10/25/2016	10.8				
10/26/2016		65.6			
12/12/2016		66.5	54.3		
12/13/2016	5.86				
12/14/2016					
2/6/2017	9.76	73.1	51.2		
2/7/2017					
2/8/2017					
3/27/2017		71.9	51.4		
3/28/2017	5.28				
3/29/2017					
3/30/2017					
4/24/2017	6.89	73.5	54.7		
4/26/2017					
6/5/2017					
6/6/2017		71.8	53.9		
6/7/2017	3.58				
8/21/2017	3.38	63.5	47.3		
8/22/2017					
8/23/2017					
5/14/2018		67.5	54.8		
5/15/2018	4.25				
5/16/2018					
10/15/2018		68.9	53.9		
10/16/2018	3.21				
10/17/2018					
2/20/2019				30.6	
4/16/2019	4.43	57.1	54		
4/17/2019					
4/23/2019					
9/23/2019		60	56.1		
9/24/2019	7.24			29.7	
9/25/2019					
3/16/2020					
3/17/2020		59.3	57.2		
3/18/2020	4.51				
3/23/2020				42.9	
3/24/2020					
3/25/2020			31.1		
5/12/2020					
5/13/2020					
9/16/2020		55.9			
9/17/2020			61.5		
9/21/2020	5.19				
9/22/2020				45.3	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
9/23/2020				29.3	
2/1/2021					
2/2/2021	4.35			31.8	44.8
2/3/2021		50.7	56.9		
2/8/2021					
2/9/2021					
2/10/2021					
7/27/2021		52.6	55.5		
8/2/2021				33	
8/3/2021					
8/4/2021					
8/9/2021					
8/10/2021	4.47				45.1

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/4/2022 9:43 PM View: All

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-7	GS-AP-MW-21	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-12
8/1/2016	6.67	6.47	2.6	15.6					
8/2/2016					3.7	28.1	6.15	2.91	
8/3/2016									14.5
9/19/2016		7.78	2.51				5.98		
9/20/2016				8.6				2.94	12.9
9/21/2016	6.54				3.74	26.8			
10/24/2016	8.77	7.29			3.75		5.93		
10/25/2016			2.53	7.96		26		2.94	12.2
10/26/2016									
12/12/2016					4.06				
12/13/2016	6.16	12.2	2.53				5.7	2.93	10.4
12/14/2016				6.94		25.3			
2/6/2017		7.68			3.92				
2/7/2017	7.57								
2/8/2017			2.5	4.96		23.8	8.44	2.85	8.77
3/27/2017		9							
3/28/2017	5.9			5.2	4.3	28			
3/29/2017			2.9					3.4	10
3/30/2017							11		
4/24/2017		10			4.6				
4/26/2017	6.5		3.2	6		27	10	3.7	9.8
6/5/2017		10							
6/6/2017	5.5		2.6	4.9		28	9.6		
6/7/2017					4.3			3.3	8
8/21/2017					4.7		12		
8/22/2017	6.5	12	2.9	5.3				3.4	6.5
8/23/2017						29			
5/14/2018									
5/15/2018		13		3.8	4.3	27		3.2	4.4
5/16/2018	6.6		3				12		
10/15/2018		10		6.6	5.1				
10/16/2018	6.2					31	20		3.1
10/17/2018			2.2					2.3	
2/20/2019									
4/16/2019								3.23	3.22
4/17/2019	7.27	12.7	2.82	5.2		32.3	9.5		
4/23/2019					5.16				
9/23/2019		16.2							
9/24/2019	5.83		2.9	5.96	5.76	36			
9/25/2019							12		6.68
3/16/2020		9.95							
3/17/2020					6.65				
3/18/2020				8		49.5			4.22
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							
9/22/2020	6.6		2.94				6.33		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
8/1/2016					
8/2/2016					
8/3/2016	3.21	21.9	5.2		
9/19/2016					
9/20/2016		20.9	5.31		
9/21/2016	2.95				
10/24/2016			5.4		
10/25/2016	3.03				
10/26/2016		20.7			
12/12/2016		21.1	5.46		
12/13/2016	3.21				
12/14/2016					
2/6/2017	3	23.3	5.28		
2/7/2017					
2/8/2017					
3/27/2017		25	6.4		
3/28/2017	3.3				
3/29/2017					
3/30/2017					
4/24/2017	3.8	24	6.5		
4/26/2017					
6/5/2017					
6/6/2017		22	4.7		
6/7/2017	3.5				
8/21/2017	3.6	21	6.1		
8/22/2017					
8/23/2017					
5/14/2018		20	6		
5/15/2018	3.3				
5/16/2018					
10/15/2018		20	7		
10/16/2018	3.3				
10/17/2018					
2/20/2019				3.56	
4/16/2019	3.69	23.1	8.36		
4/17/2019					
4/23/2019					
9/23/2019		23.4	8.72		
9/24/2019	3.21			3.69	
9/25/2019					
3/16/2020					
3/17/2020		17.4	10.1		
3/18/2020	4.35				
3/23/2020				5.13	
3/24/2020					
3/25/2020			3.72		
5/12/2020					
5/13/2020					
9/16/2020		14.6			
9/17/2020			10.5		
9/21/2020	3.22				
9/22/2020				7.57	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
9/23/2020				3.74	
2/1/2021					
2/2/2021	3.85			3.49	10.8
2/3/2021		14.9	12.2		
2/8/2021					
2/9/2021					
2/10/2021					
7/27/2021		17	11.1		
8/2/2021				3.12	
8/3/2021					
8/4/2021					
8/9/2021					
8/10/2021	4.04				18.8

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/4/2022 9:43 PM View: All

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-7	GS-AP-MW-21	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-12
8/1/2016	0.385		0.117 (J)	1.16					
8/2/2016					0.098 (J)	0.282 (J)	1.76	0.161 (J)	
8/3/2016									0.656
9/19/2016		0.151 (J)	0.078 (J)				1.55		
9/20/2016				0.7				0.122 (J)	0.691
9/21/2016	0.303				0.061 (J)	0.231 (J)			
10/24/2016	0.24 (J)	0.086 (J)			<0.3		1.29		
10/25/2016			0.018 (J)	0.544		0.137 (J)		0.058 (J)	0.588
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)	0.545
12/14/2016				0.51		0.131 (J)			
2/6/2017		0.2			0.07 (J)				
2/7/2017	0.38								
2/8/2017			0.1	0.56		0.25	1.6	0.16	0.79
3/27/2017		0.21							
3/28/2017	0.32			0.59	0.07 (J)	0.27			
3/29/2017			0.08 (J)					0.14	0.51
3/30/2017							1.5		
4/24/2017		0.2			0.08 (J)				
4/26/2017	0.31		0.11	0.72		0.24	1.4	0.16	0.49
6/5/2017		0.2							
6/6/2017	0.31		0.11	0.65		0.25	1.3		
6/7/2017					0.09 (J)			0.15	0.43
8/21/2017					0.09 (J)		1.4		
8/22/2017	0.35	0.24	0.11	0.9				0.18	0.41
8/23/2017						0.3			
2/19/2018		0.34			0.09 (J)				
2/20/2018				0.6		0.23		0.17	0.27
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	0.23
5/16/2018	0.36		0.12				1.1		
10/15/2018		0.23		0.77	0.11				
10/16/2018	0.37					0.25	1		0.23
10/17/2018			0.13					0.19	
2/20/2019									
4/16/2019								0.197	0.188
4/17/2019	0.27	0.354	0.171	0.463		0.272	0.868		
4/23/2019					0.111				
9/23/2019		0.351							
9/24/2019	0.307		0.124	0.628	0.106	0.209			
9/25/2019							0.86		0.168
3/16/2020		0.261							
3/17/2020					0.107				
3/18/2020				0.647		0.234			0.122
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		
9/16/2020					0.126				

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
8/1/2016					
8/2/2016					
8/3/2016	0.125 (J)	0.099 (J)	0.127 (J)		
9/19/2016					
9/20/2016		0.074 (J)	0.087 (J)		
9/21/2016	0.098 (J)				
10/24/2016			0.019 (J)		
10/25/2016	0.025 (J)				
10/26/2016		0.032 (J)			
12/12/2016		0.034 (J)	0.043 (J)		
12/13/2016	0.045 (J)				
12/14/2016					
2/6/2017	0.1	0.06 (J)	0.11		
2/7/2017					
2/8/2017					
3/27/2017		0.07 (J)	0.12		
3/28/2017	0.08 (J)				
3/29/2017					
3/30/2017					
4/24/2017	0.09 (J)	0.08 (J)	0.11		
4/26/2017					
6/5/2017					
6/6/2017		0.09 (J)	0.12		
6/7/2017	0.08 (J)				
8/21/2017	0.08 (J)	0.1	0.15		
8/22/2017					
8/23/2017					
2/19/2018	0.08 (J)	0.1	0.13		
2/20/2018					
2/21/2018					
5/14/2018		0.13	0.13		
5/15/2018	0.1				
5/16/2018					
10/15/2018		0.14	0.16		
10/16/2018	0.09 (J)				
10/17/2018					
2/20/2019				0.239	
4/16/2019	0.143	0.147	0.156		
4/17/2019					
4/23/2019					
9/23/2019		0.142	0.132		
9/24/2019	0.128			0.245	
9/25/2019					
3/16/2020					
3/17/2020		0.231	0.132		
3/18/2020	0.108				
3/23/2020				0.187	
3/24/2020					
3/25/2020				0.243	
5/12/2020					
5/13/2020					
9/16/2020		0.308			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
9/17/2020			0.133		
9/21/2020	0.125				
9/22/2020					0.174
9/23/2020				0.278	
2/1/2021					
2/2/2021	0.114			0.244	0.183
2/3/2021		0.195	0.135		
2/8/2021					
2/9/2021					
2/10/2021					
7/27/2021		0.2	0.127		
8/2/2021				0.276	
8/3/2021					
8/4/2021					
8/9/2021					
8/10/2021	0.0924 (J)				0.166

Prediction Limit

Constituent: pH (SU) Analysis Run 1/4/2022 9:43 PM View: All
 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-7	GS-AP-MW-21	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-12
8/1/2016	8.05	8.39	7.53	11.74					
8/2/2016					7.72	10.26	9.18	6.8	
8/3/2016									7.36
9/19/2016		8.42	7.5				9.18		
9/20/2016				10.33				6.8	7.28
9/21/2016	8.14				7.6	10.45			
10/24/2016	8.55	8.42			7.68		9.14		
10/25/2016			7.44	10.24		10.42		6.85	7.23
10/26/2016									
12/12/2016					7.72				
12/13/2016	8.08	8.43	7.45				9.2	6.8	7.27
12/14/2016				10.09		10.12			
2/6/2017		8.38			7.64				
2/7/2017	8.61								
2/8/2017			7.41	9.75		10.28	9.17	6.76	7.25
3/27/2017		8.43							
3/28/2017	7.94			9.9	7.58	10.67			
3/29/2017			7.44					6.76	7.34
3/30/2017							9.08		
4/24/2017		8.39			7.68				
4/26/2017	8.26		7.47	10.08		10.42	9.22	6.71	7.19
6/5/2017		8.42							
6/6/2017	8.23		7.37	10.2		10.51	9.22		
6/7/2017					7.56			6.71	7.24
8/21/2017					7.61		9.12		
8/22/2017	8.1	8.4	7.48	10.57				6.84	7.31
8/23/2017						11.91			
2/19/2018		8.33			7.65				
2/20/2018				10.63		11.57		6.77	7.69
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	7.69
5/16/2018	8.12		7.45				9.28		
10/15/2018		8.37		11.51	7.62				
10/16/2018	8.22					11.34	9.35		7.51
10/17/2018			7.41					6.67	
2/20/2019									
4/16/2019								6.64	7.41
4/17/2019	8.06	8.36	7.33	10.76		11.71	9.26		
4/23/2019					7.83				
9/23/2019		8.37							
9/24/2019	7.8		7.43	11.7	7.38	11.24			
9/25/2019							9.31		7.38
3/16/2020		8.45							
3/17/2020					7.72				
3/18/2020				11.47		11.37			7.56
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		
9/16/2020					7.74				

Prediction Limit

Constituent: pH (SU) Analysis Run 1/4/2022 9:43 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
8/1/2016					
8/2/2016					
8/3/2016	5.84	6.81	7.27		
9/19/2016					
9/20/2016		6.72	7.27		
9/21/2016	5.99				
10/24/2016			7.25		
10/25/2016	5.94				
10/26/2016		6.68			
12/12/2016		6.76	7.26		
12/13/2016	5.84				
12/14/2016					
2/6/2017	5.9	6.75	7.24		
2/7/2017					
2/8/2017					
3/27/2017		6.67	7.29		
3/28/2017	5.67				
3/29/2017					
3/30/2017					
4/24/2017	5.79	6.81	7.46		
4/26/2017					
6/5/2017					
6/6/2017		6.8	7.29		
6/7/2017	5.71				
8/21/2017	5.7	6.78	7.21		
8/22/2017					
8/23/2017					
2/19/2018	5.78	6.85	7.36		
2/20/2018					
2/21/2018					
5/14/2018		6.82	7.36		
5/15/2018	5.84				
5/16/2018					
10/15/2018		6.78	7.33		
10/16/2018	5.75				
10/17/2018					
2/20/2019				7.76	
4/16/2019	5.76	6.82	7.26		
4/17/2019					
4/23/2019					
9/23/2019		6.51	7.23		
9/24/2019	5.27			7.65	
9/25/2019					
3/16/2020					
3/17/2020		6.92	7.39		
3/18/2020	5.81				
3/23/2020				6.97	
3/24/2020					
3/25/2020				7.63	
5/12/2020					
5/13/2020					
9/16/2020		6.93			

Prediction Limit

Constituent: pH (SU) Analysis Run 1/4/2022 9:43 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
9/17/2020			7.41		
9/21/2020	5.75				
9/22/2020					7.08
9/23/2020				7.53	
2/1/2021					
2/2/2021	5.69			7.58	6.94
2/3/2021		7.05	7.55		
2/8/2021					
2/9/2021					
2/10/2021					
7/27/2021		6.67	6.79		
8/2/2021				7.65	
8/3/2021					
8/4/2021					
8/9/2021					
8/10/2021	5.02				7.12

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/4/2022 9:43 PM View: All

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-7	GS-AP-MW-21	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-12
8/1/2016	9.02	9.56	13.4	102					
8/2/2016					154	9.14	2.87	12	
8/3/2016									19.2
9/19/2016		12.7	12.9				1.22		
9/20/2016				53.3				11.2	1.42
9/21/2016	8.38				146	8.71			
10/24/2016	18.5	8.58			131		<1		
10/25/2016			11.6	49.8		8.54		10.1	<1
10/26/2016									
12/12/2016					141				
12/13/2016	7.4	31	12.7				<1	11.4	3.21
12/14/2016				40.9		11.5			
2/6/2017		14.7							
2/7/2017	8.16				135				
2/8/2017			12.2	25		17	19.4	10.9	3.3
3/27/2017		14							
3/28/2017	6.4			27	140	25			
3/29/2017			12					11	3.8 (J)
3/30/2017							31		
4/24/2017		22			140				
4/26/2017	4.6 (J)		13	29		28	29	11	1.4 (J)
6/5/2017		30							
6/6/2017	5.2		12	23		33	37		
6/7/2017					150			11	1.7 (J)
8/21/2017					140		55		
8/22/2017	5.3	42	12	22				11	4.2 (J)
8/23/2017						43			
5/14/2018									
5/15/2018		54		13	120	110		11	14
5/16/2018	6		13				34		
10/15/2018		34		14	130				
10/16/2018	5.6					160	90		13
10/17/2018			13					12	
2/20/2019									
4/16/2019								12.1	13.3
4/17/2019	14.3	76.6	14.1	9.02		215	48.6		
4/23/2019					156				
9/23/2019		124							
9/24/2019	13.8		14.1	12.4	145	224			
9/25/2019							47.7		25.5
3/16/2020		48.6							
3/17/2020					149				
3/18/2020				15.9		228			20.8
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							
9/22/2020	16.9		13.6				21.5		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
8/1/2016					
8/2/2016					
8/3/2016	4.2	203	52		
9/19/2016					
9/20/2016		209	56		
9/21/2016	4.27				
10/24/2016			57.5		
10/25/2016	2.78				
10/26/2016		224			
12/12/2016		249	50		
12/13/2016	3.18				
12/14/2016					
2/6/2017	3.74	309	54.9		
2/7/2017					
2/8/2017					
3/27/2017		290	50		
3/28/2017	3.4 (J)				
3/29/2017					
3/30/2017					
4/24/2017	2.7 (J)	300	56		
4/26/2017					
6/5/2017					
6/6/2017		310	63		
6/7/2017	2.7 (J)				
8/21/2017	3.9 (J)	260	35		
8/22/2017					
8/23/2017					
5/14/2018		210	46		
5/15/2018	2.5 (J)				
5/16/2018					
10/15/2018		170	37		
10/16/2018	2.4 (J)				
10/17/2018					
2/20/2019				15.2	
4/16/2019	4.53	195	46.8		
4/17/2019					
4/23/2019					
9/23/2019		176	47.9		
9/24/2019	6.61			11.8	
9/25/2019					
3/16/2020					
3/17/2020		148	59.5		
3/18/2020	4.86				
3/23/2020				18.7	
3/24/2020					
3/25/2020			9.69		
5/12/2020					
5/13/2020					
9/16/2020		115			
9/17/2020			65.1		
9/21/2020	4.69				
9/22/2020				21.2	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
9/23/2020				11.1	
2/1/2021					
2/2/2021	4.83			8.81	31.2
2/3/2021		116	58.9		
2/8/2021					
2/9/2021					
2/10/2021					
7/27/2021		114	64.4		
8/2/2021				10.2	
8/3/2021					
8/4/2021					
8/9/2021					
8/10/2021	3.77				32.7

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/4/2022 9:43 PM View: All

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-7	GS-AP-MW-21	GS-AP-MW-2	GS-AP-MW-13 (bg)	GS-AP-MW-12
8/1/2016	245	408	222	640					
8/2/2016					358	348	390	221	
8/3/2016									546
9/19/2016		441	220				398		
9/20/2016				434				221	542
9/21/2016	267				370	368			
10/24/2016	275	424			370		395		
10/25/2016			223	394		348		226	518
10/26/2016									
12/12/2016					353				
12/13/2016	255	466	211				381	211	424
12/14/2016				387		352			
2/6/2017		414			338				
2/7/2017	272								
2/8/2017			206	303		352	376	212	379
3/27/2017		444							
3/28/2017	271			305	352	370			
3/29/2017			215					217	334
3/30/2017							391		
4/24/2017		446			362				
4/26/2017	265		212	329		342	384	202	332
6/5/2017		493							
6/6/2017	287		227	331		367	404		
6/7/2017					348			218	308
8/21/2017					362		416		
8/22/2017	293	500	230	364				224	286
8/23/2017						508			
5/14/2018									
5/15/2018		528		340	338	438		209	235
5/16/2018	301		216				365		
10/15/2018		462		448	333				
10/16/2018	303					520	430		211
10/17/2018			191					208	
2/20/2019									
4/16/2019								185	193
4/17/2019	296	540	207	354		582	341		
4/23/2019					354				
9/23/2019		684							
9/24/2019	302		208	536	344	630			
9/25/2019							358		253
3/16/2020		516							
3/17/2020					334				
3/18/2020				515		661			236
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							
9/22/2020	300		218				318		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
8/1/2016					
8/2/2016					
8/3/2016	113	394	302		
9/19/2016					
9/20/2016		444	298		
9/21/2016	128				
10/24/2016			306		
10/25/2016	121				
10/26/2016		456			
12/12/2016		491	291		
12/13/2016	101				
12/14/2016					
2/6/2017	108	580	285		
2/7/2017					
2/8/2017					
3/27/2017		554	305		
3/28/2017	91				
3/29/2017					
3/30/2017					
4/24/2017	89.3	566	301		
4/26/2017					
6/5/2017					
6/6/2017		580	311		
6/7/2017	84				
8/21/2017	91.3	524	289		
8/22/2017					
8/23/2017					
5/14/2018		458	303		
5/15/2018	94.7				
5/16/2018					
10/15/2018		404	309		
10/16/2018	76.7				
10/17/2018					
2/20/2019				346	
4/16/2019	92	382	285		
4/17/2019					
4/23/2019					
9/23/2019		381	296		
9/24/2019	109			365	
9/25/2019					
3/16/2020					
3/17/2020		328	303		
3/18/2020	90.7				
3/23/2020				268	
3/24/2020					
3/25/2020			364		
5/12/2020					
5/13/2020					
9/16/2020		269			
9/17/2020			314		
9/21/2020	94				
9/22/2020				285	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/4/2022 9:43 PM View: All
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (bg)	GS-AP-MW-6S	GS-AP-MW-6D	GS-AP-MW-17V ...	GS-AP-MW-9V
9/23/2020				368	
2/1/2021					
2/2/2021	98.7			356	314
2/3/2021		274	301		
2/8/2021					
2/9/2021					
2/10/2021					
7/27/2021		273	262		
8/2/2021				333	
8/3/2021					
8/4/2021					
8/9/2021					
8/10/2021	101				309

FIGURE E.

Trend Test - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:47 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-6D	0.04383	81	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.0724	-87	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04228	79	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.367	64	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.603	84	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.677	92	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.262	104	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6673	123	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1692	68	63	Yes	17	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-17	0.03151	104	74	Yes	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1588	-119	-74	Yes	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	0.08955	76	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.3813	81	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.05508	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	3.913	68	63	Yes	17	5.882	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	52.6	124	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6S	-28.3	-66	-63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	29.8	82	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	74.69	100	63	Yes	17	0	n/a	n/a	0.01	NP

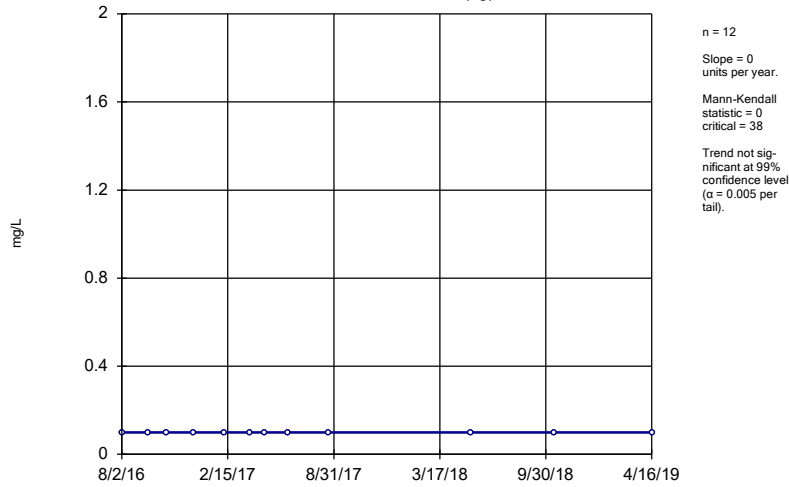
Trend Test - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/4/2022, 9:47 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)	-0.005646	-5	-14	No	6	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	0.007998	23	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6D	0.04383	81	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.0724	-87	-63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04228	79	63	Yes	17	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-8 (bg)	0	16	63	No	17	94.12	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)	0.9799	7	14	No	6	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-19	2.367	64	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	1.603	84	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6S	-2.649	-34	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-8 (bg)	-0.9031	-50	-63	No	17	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	-0.2019	-18	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	0.7115	46	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17V (bg)	-0.1469	-3	-14	No	6	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-0.1656	-42	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	0.2604	20	68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	3.677	92	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	1.262	104	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6S	-1.043	-49	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6673	123	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (bg)	0.1692	68	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-9V	9.372	6	8	No	4	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-15	-0.01602	-17	-68	No	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17	0.03151	104	74	Yes	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17V (bg)	0.01014	7	14	No	6	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-19	-0.0002583	-2	-68	No	18	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.1588	-119	-74	Yes	19	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-8 (bg)	0.006745	48	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	0.08955	76	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-13 (bg)	-0.05825	-34	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.3813	81	68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	0	-4	-74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17V (bg)	-0.05141	-6	-14	No	6	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.0431	70	74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-21	0.1896	62	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (bg)	-0.05508	-77	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	3.913	68	63	Yes	17	5.882	n/a	n/a	0.01	NP
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-17V (bg)	-2.041	-9	-14	No	6	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	4.644	36	68	No	18	11.11	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	52.6	124	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6D	1.301	22	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6S	-28.3	-66	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-7	-1.673	-27	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-8 (bg)	0.1756	25	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-9V	11.58	6	8	No	4	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	44.52	48	63	No	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	29.8	82	68	Yes	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17V (bg)	-5.308	-3	-14	No	6	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-21	74.69	100	63	Yes	17	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (bg)	-3.511	-29	-63	No	17	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

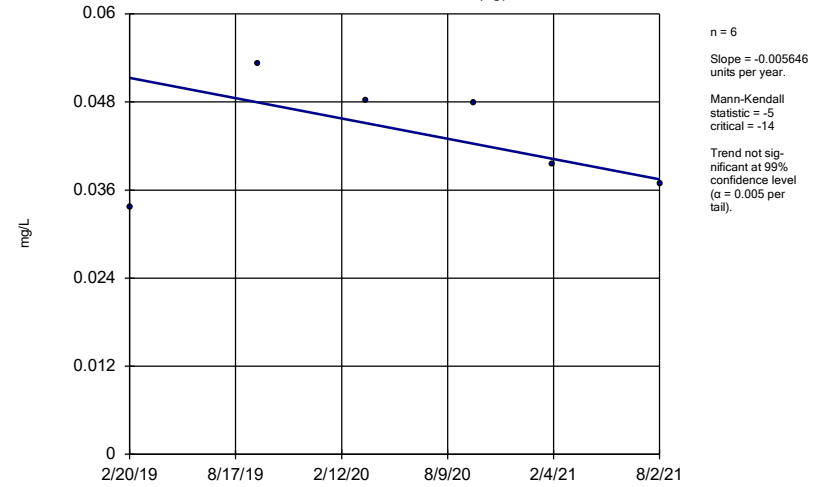
GS-AP-MW-13 (bg)



Constituent: Boron Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

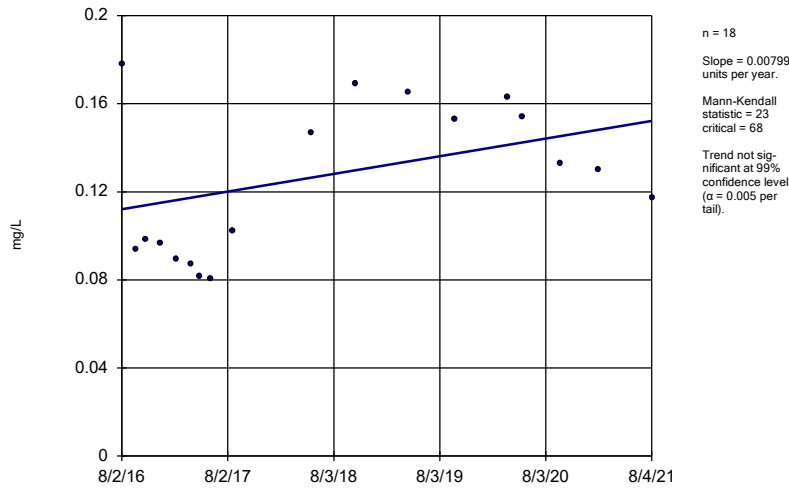
GS-AP-MW-17V (bg)



Constituent: Boron Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

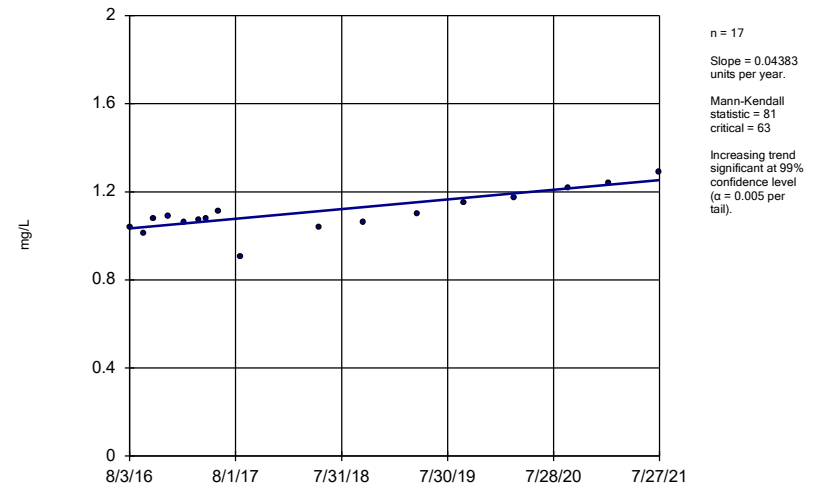
GS-AP-MW-2



Constituent: Boron Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

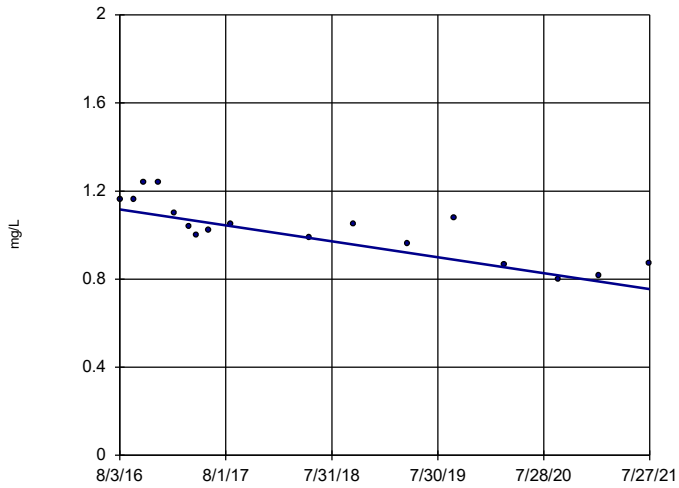
Sen's Slope Estimator

GS-AP-MW-6D



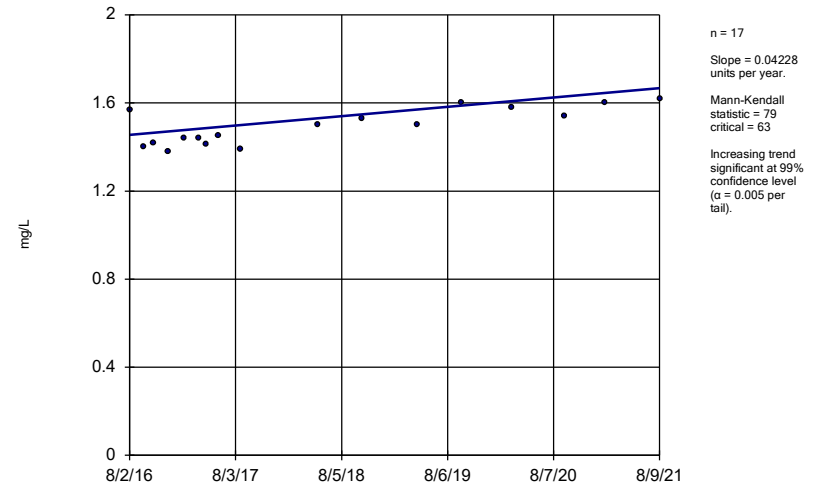
Constituent: Boron Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-6S



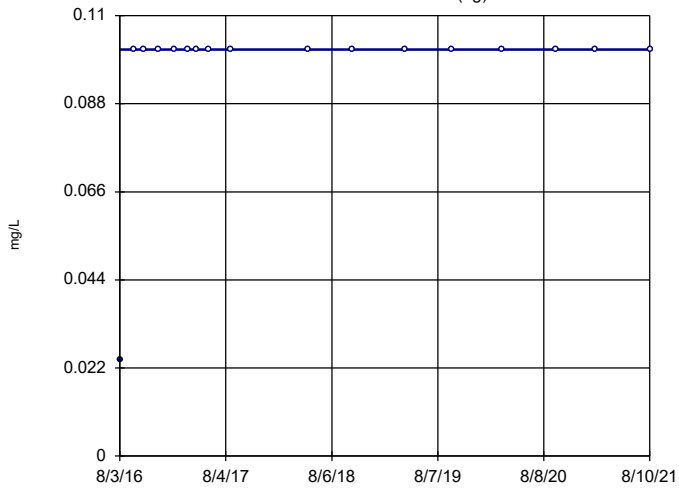
Constituent: Boron Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-7



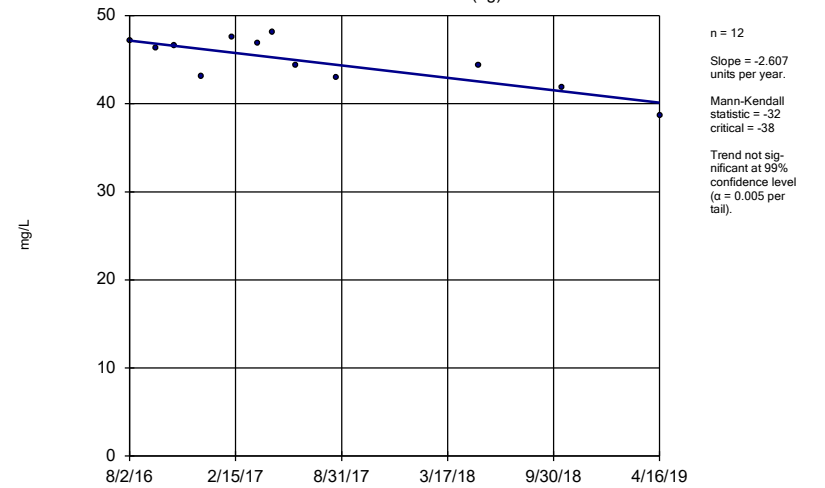
Constituent: Boron Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-8 (bg)



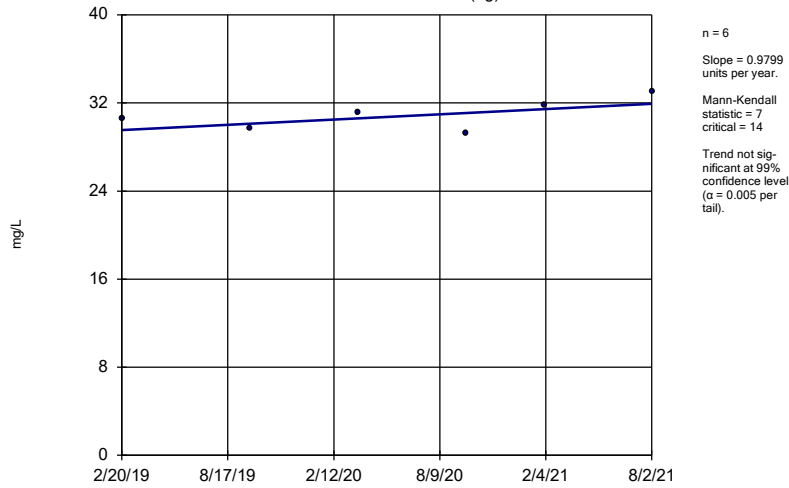
Constituent: Boron Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-13 (bg)



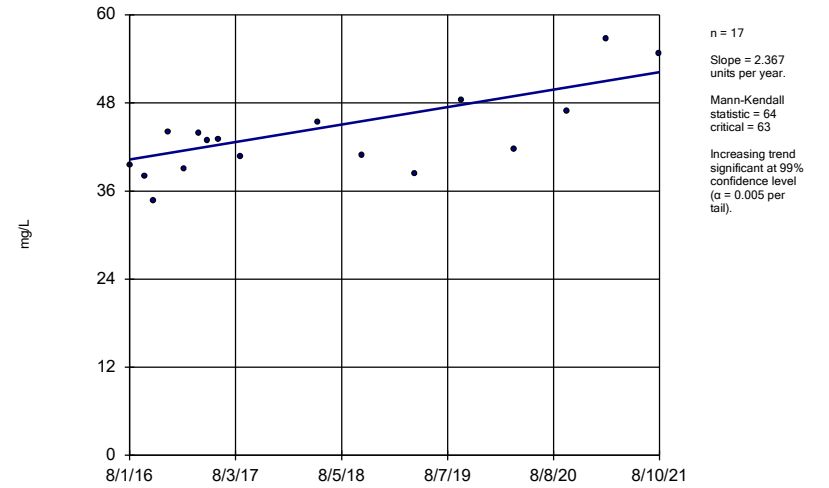
Constituent: Calcium Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-17V (bg)



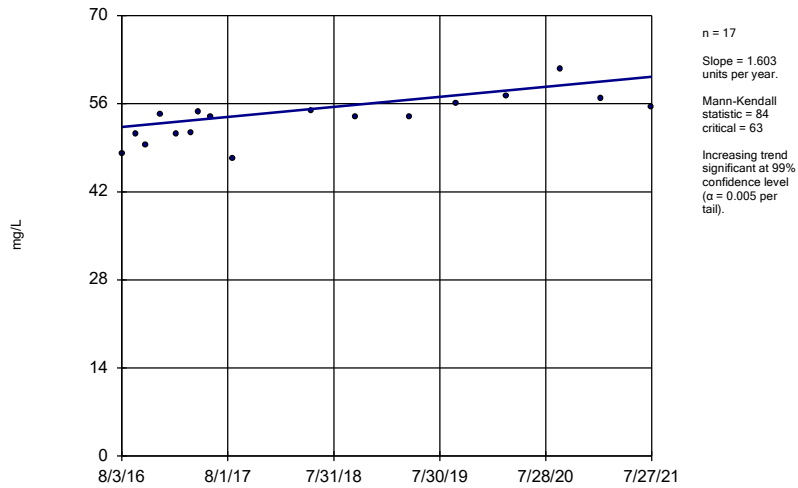
Constituent: Calcium Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-19



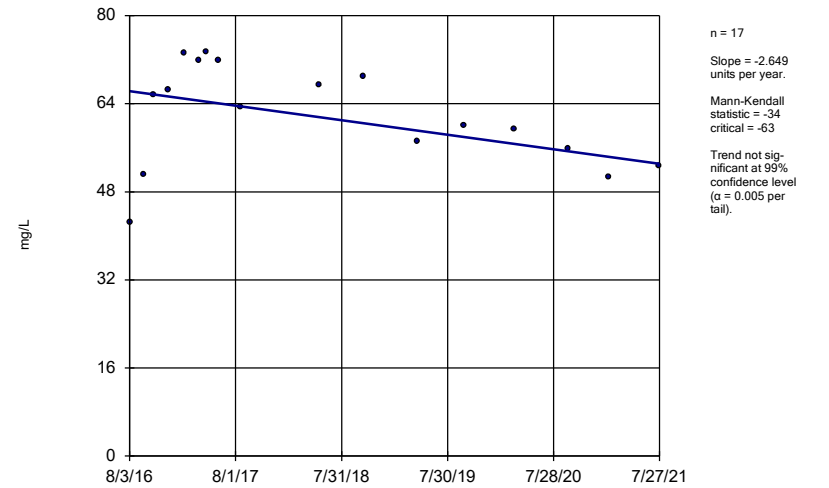
Constituent: Calcium Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-6D



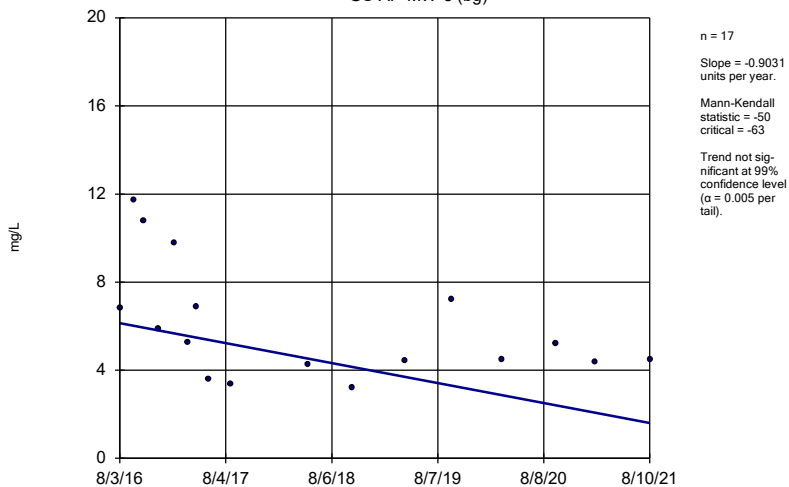
Constituent: Calcium Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-6S



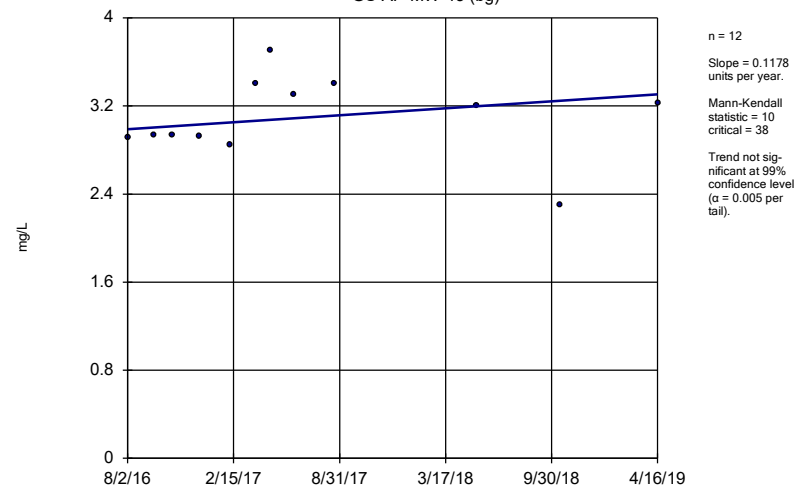
Constituent: Calcium Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-8 (bg)



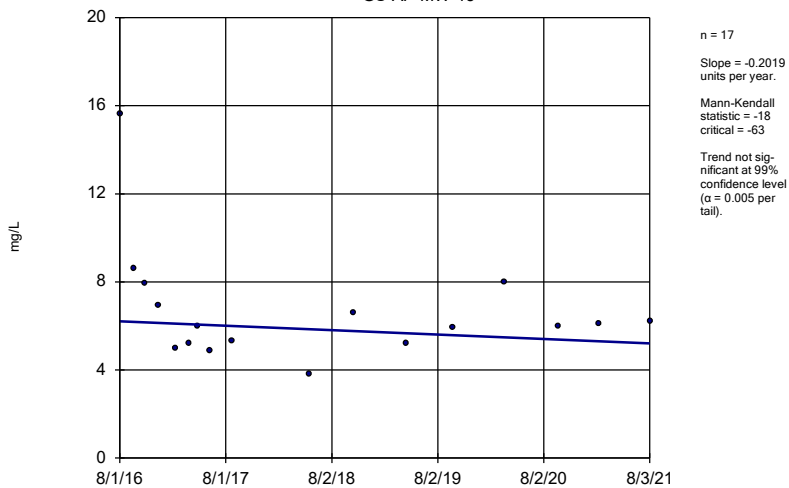
Constituent: Calcium Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-13 (bg)



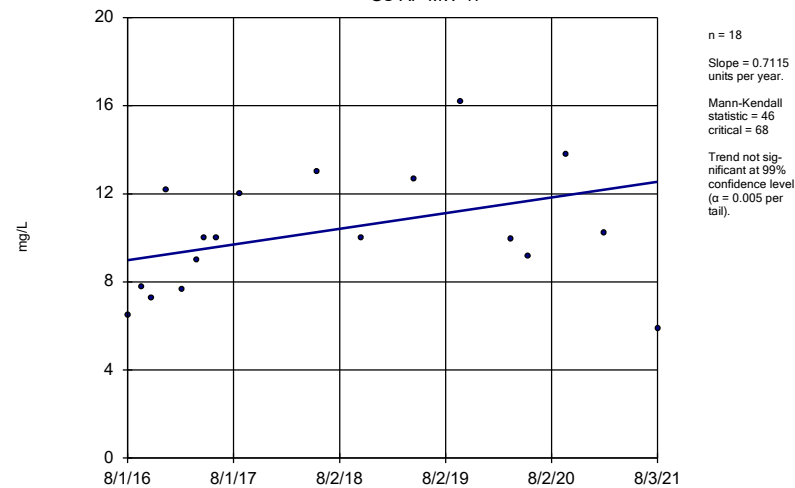
Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-15

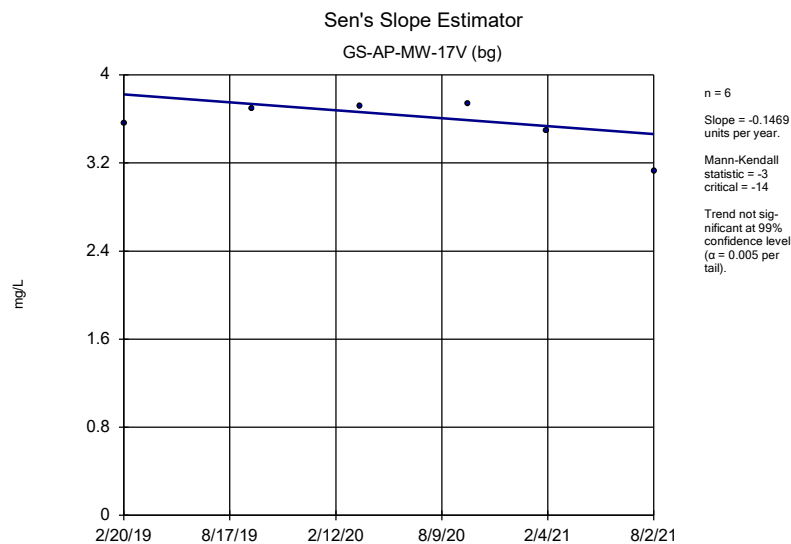


Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

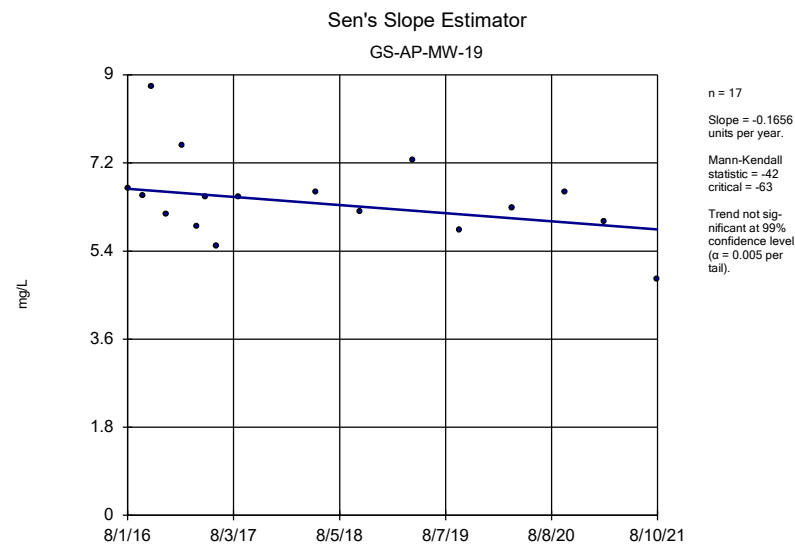
Sen's Slope Estimator GS-AP-MW-17



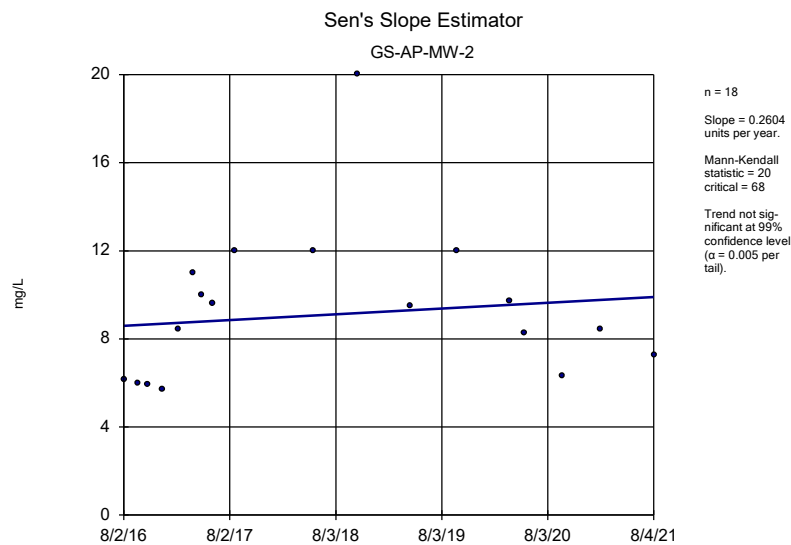
Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



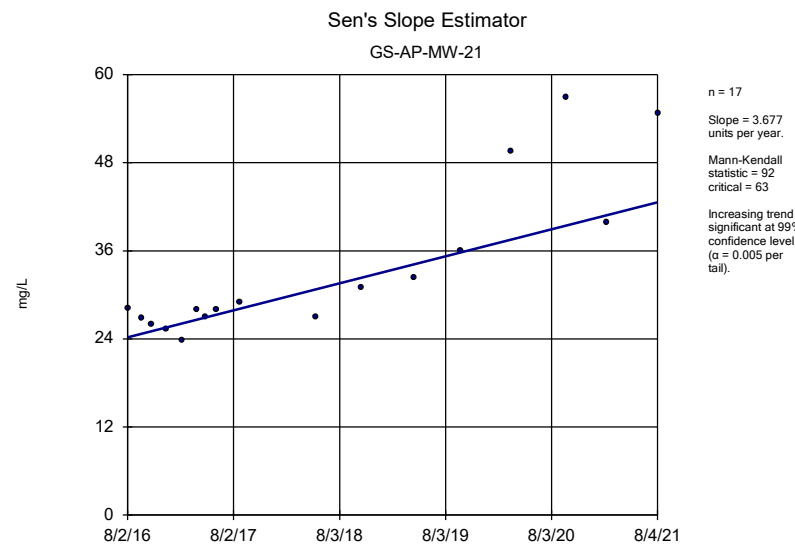
Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



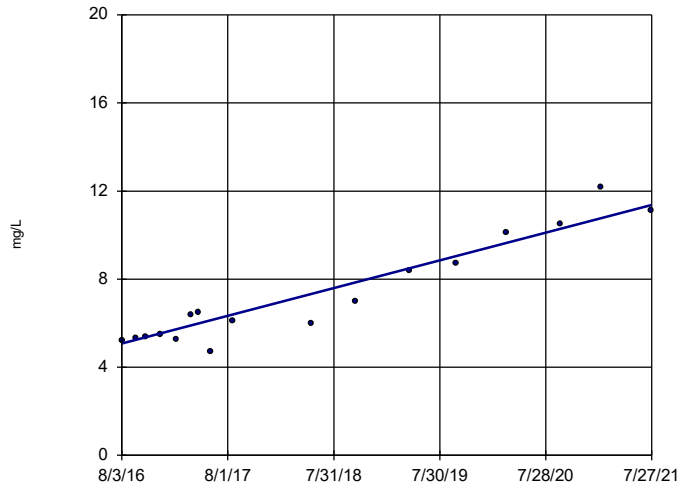
Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond



Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

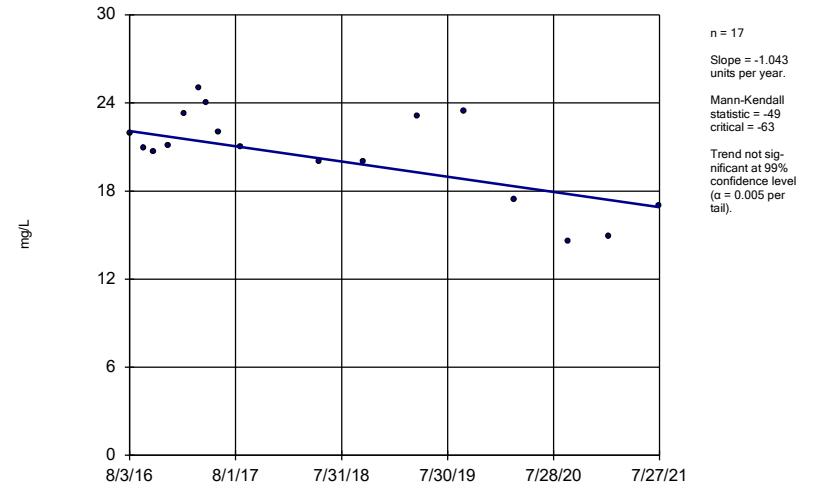
GS-AP-MW-6D



Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

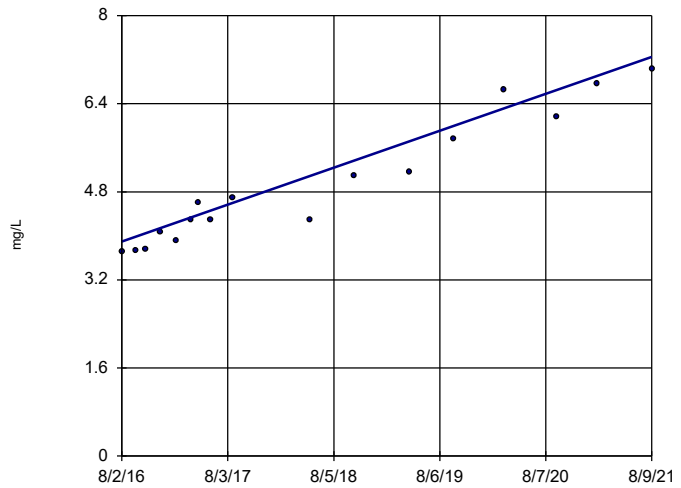
GS-AP-MW-6S



Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

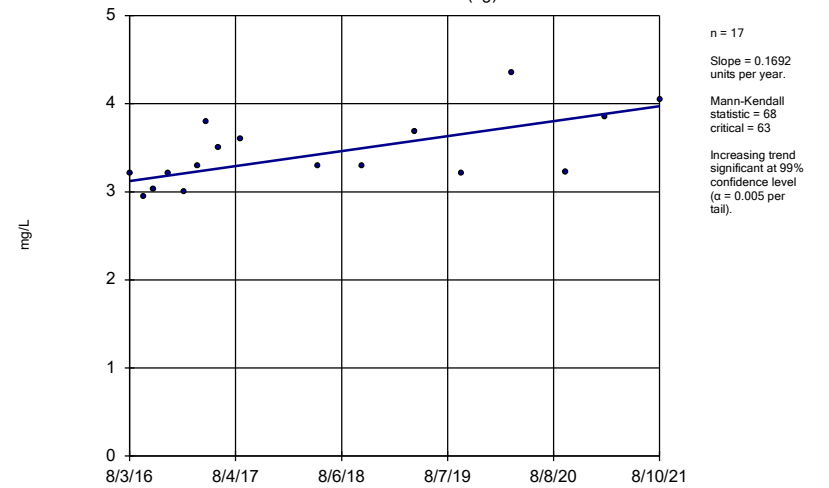
GS-AP-MW-7



Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

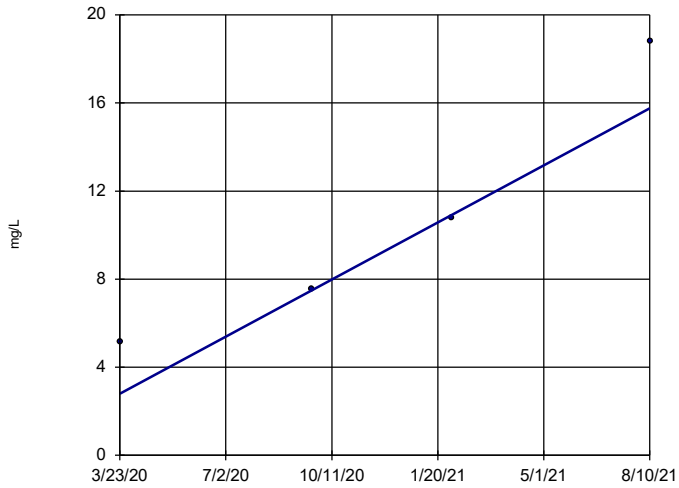
Sen's Slope Estimator

GS-AP-MW-8 (bg)



Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

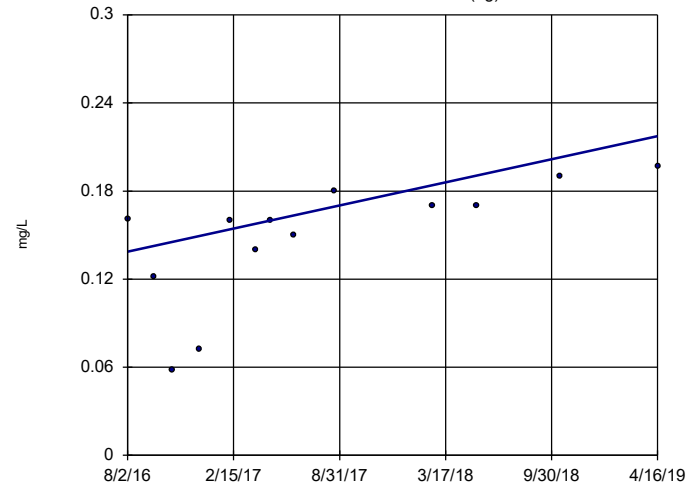
Sen's Slope Estimator GS-AP-MW-9V



n = 4
 Slope = 9.372 units per year.
 Mann-Kendall statistic = 6
 critical = 8
 Trend not significant at 99% confidence level (α = 0.005 per tail).
 With n = 4, no data set will result in a significant Mann-Kendall statistic.

Constituent: Chloride Analysis Run 1/4/2022 9:45 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

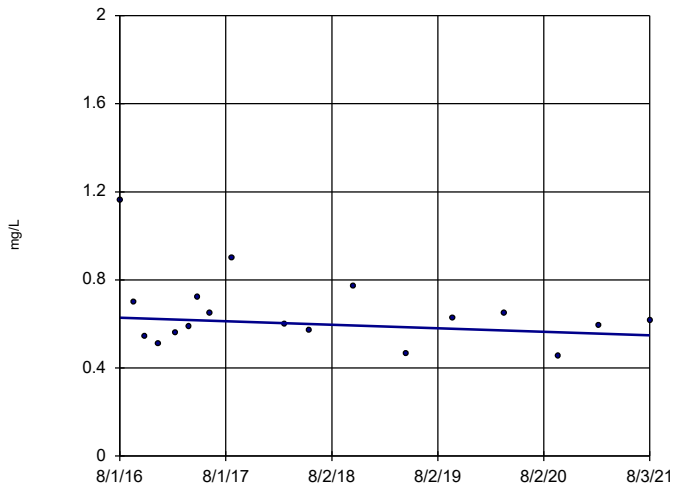
Sen's Slope Estimator GS-AP-MW-13 (bg)



n = 13
 Slope = 0.02914 units per year.
 Mann-Kendall statistic = 48
 critical = 43
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Fluoride Analysis Run 1/4/2022 9:45 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

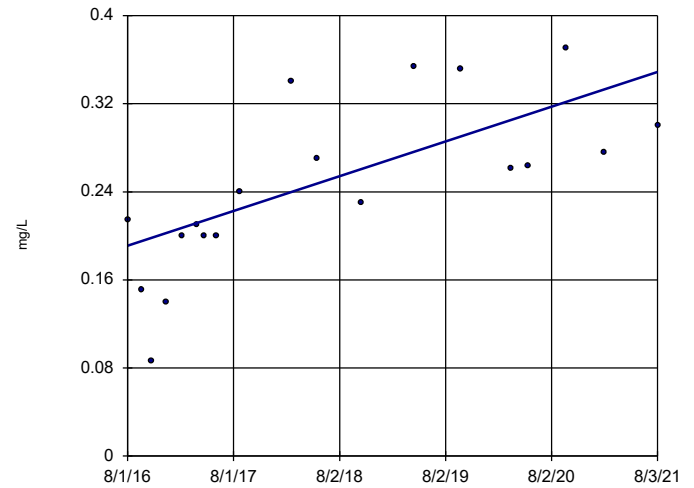
Sen's Slope Estimator GS-AP-MW-15



n = 18
 Slope = -0.01602 units per year.
 Mann-Kendall statistic = -17
 critical = -68
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Fluoride Analysis Run 1/4/2022 9:45 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-17

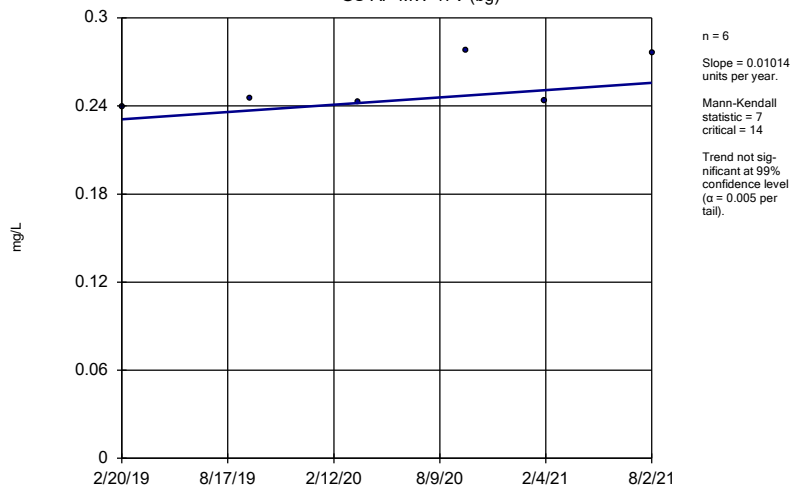


n = 19
 Slope = 0.03151 units per year.
 Mann-Kendall statistic = 104
 critical = 74
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Fluoride Analysis Run 1/4/2022 9:45 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

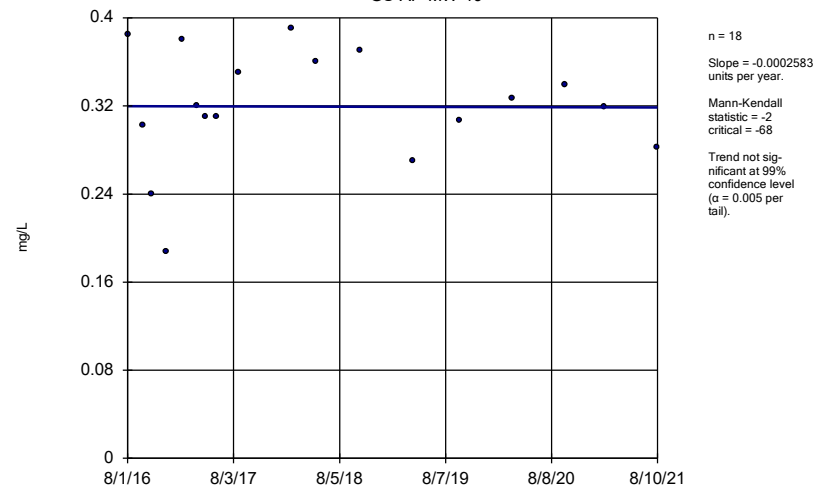
GS-AP-MW-17V (bg)



Constituent: Fluoride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

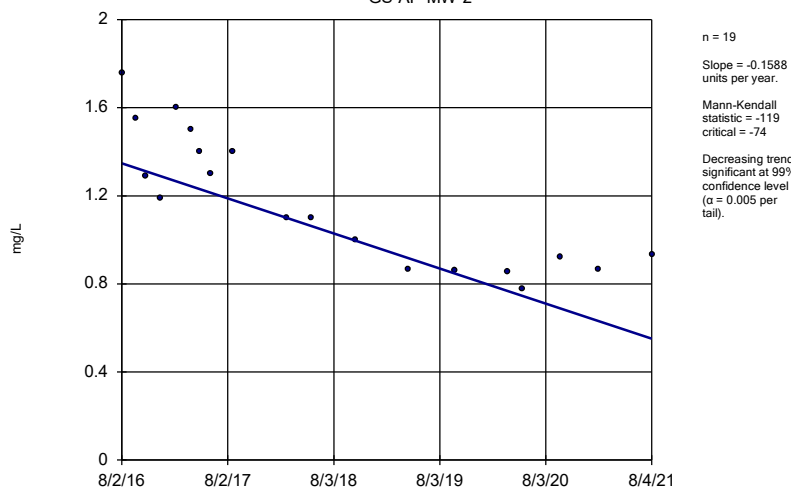
GS-AP-MW-19



Constituent: Fluoride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

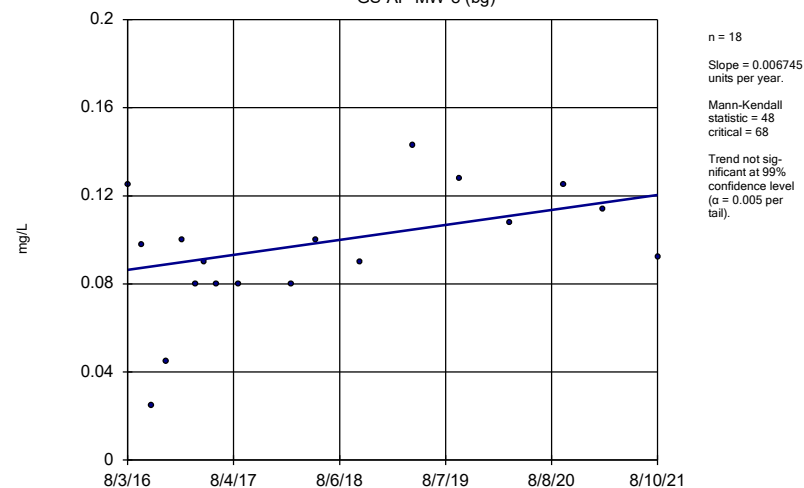
GS-AP-MW-2



Constituent: Fluoride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

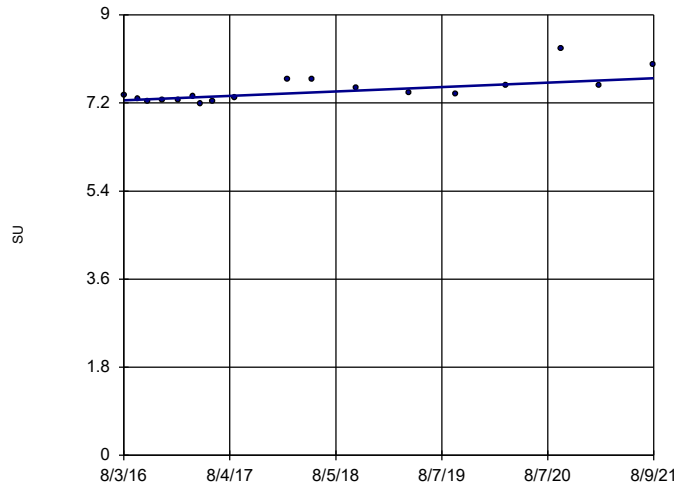
Sen's Slope Estimator

GS-AP-MW-8 (bg)



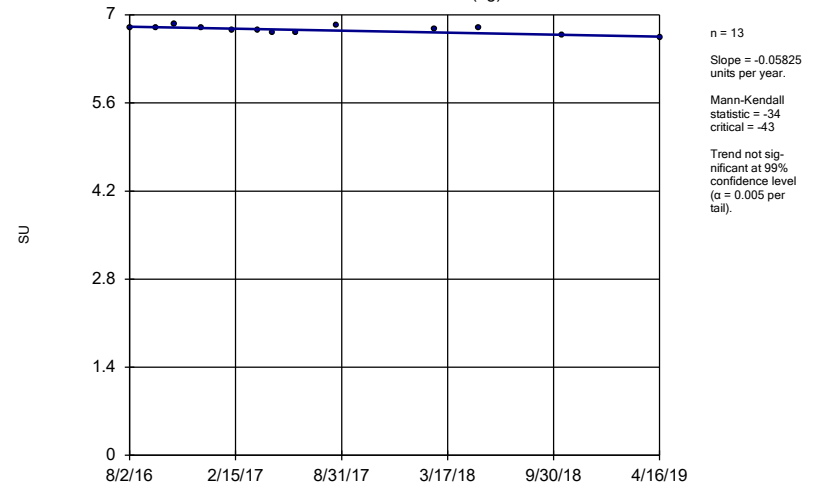
Constituent: Fluoride Analysis Run 1/4/2022 9:45 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator
GS-AP-MW-12



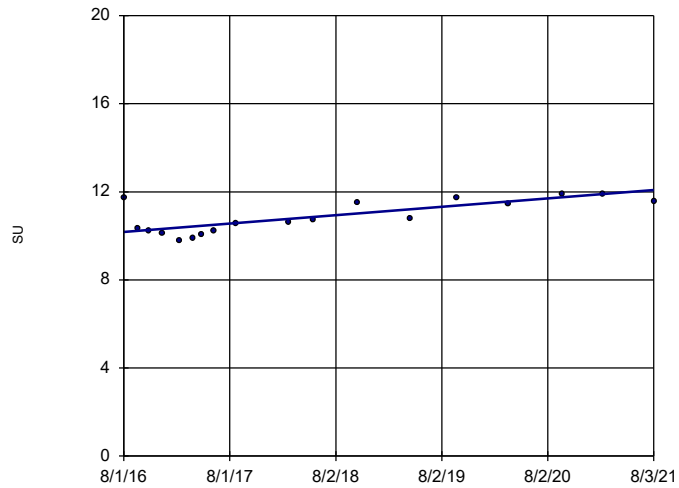
Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator
GS-AP-MW-13 (bg)



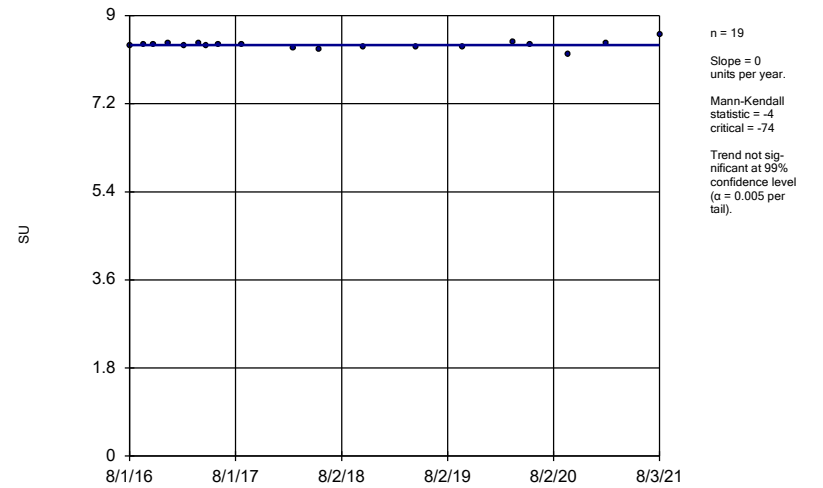
Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator
GS-AP-MW-15



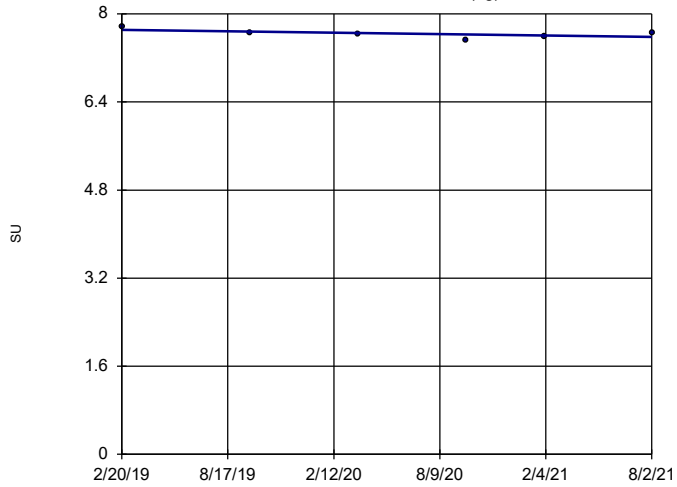
Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator
GS-AP-MW-17



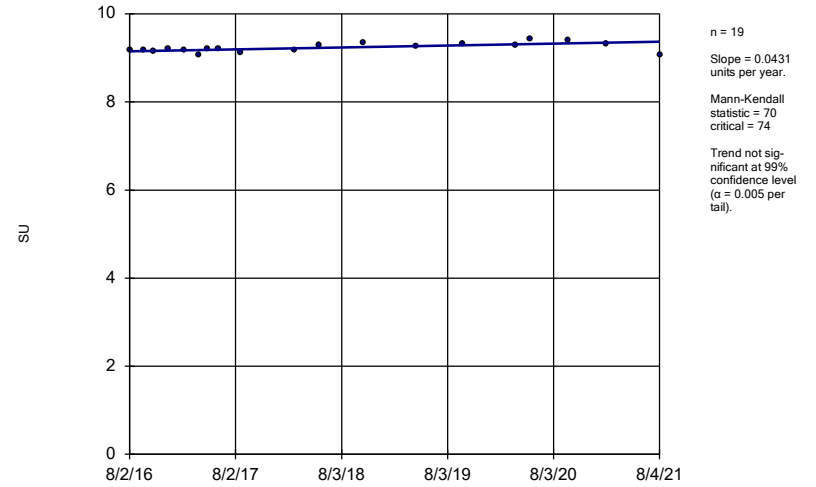
Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-17V (bg)



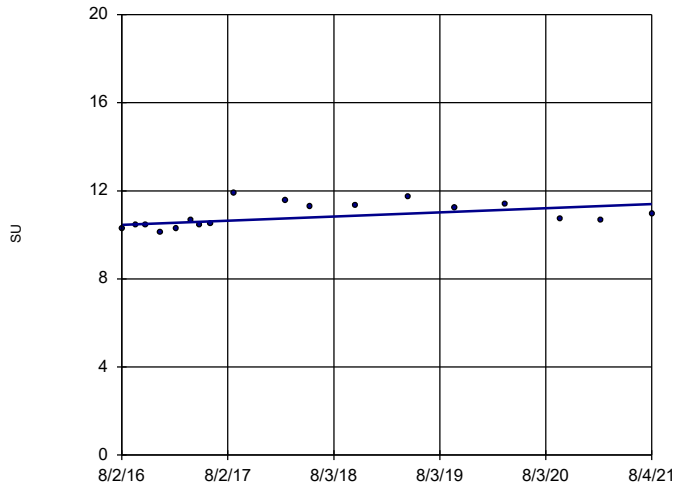
Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-2



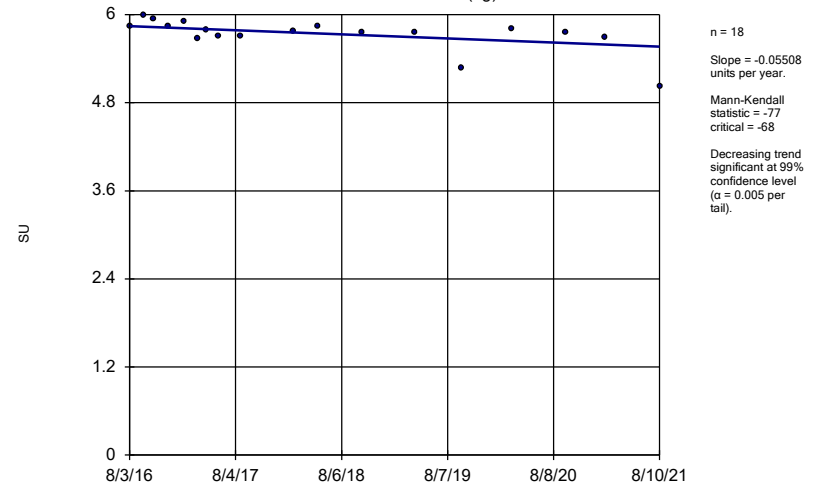
Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-21



Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

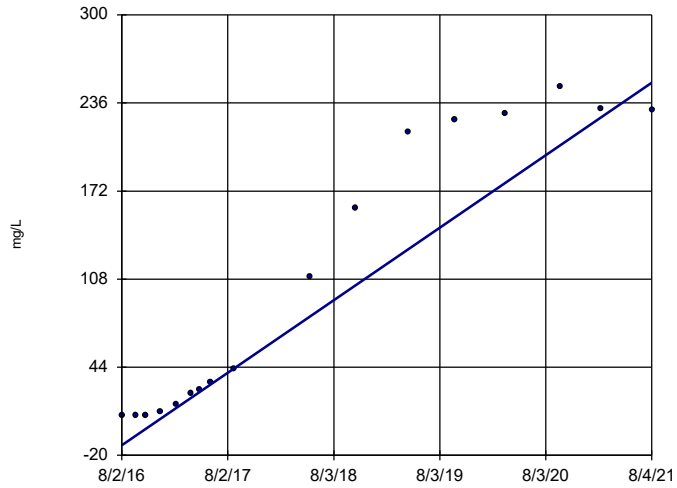
Sen's Slope Estimator GS-AP-MW-8 (bg)



Constituent: pH Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

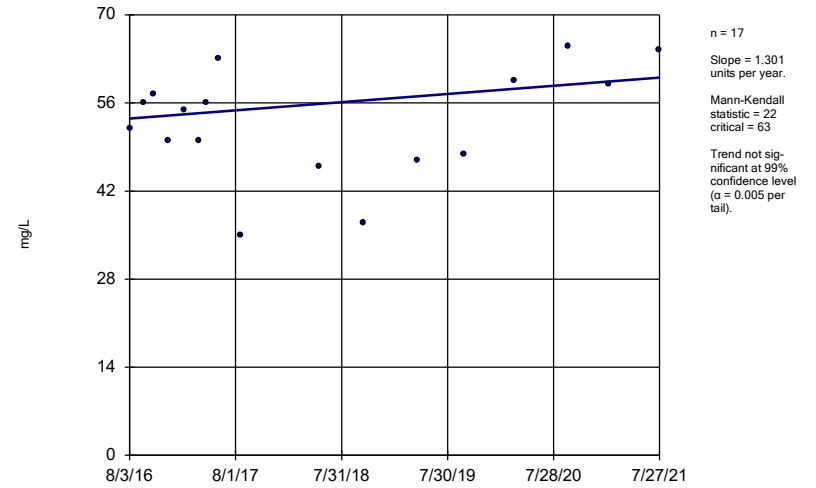
GS-AP-MW-21



Constituent: Sulfate Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

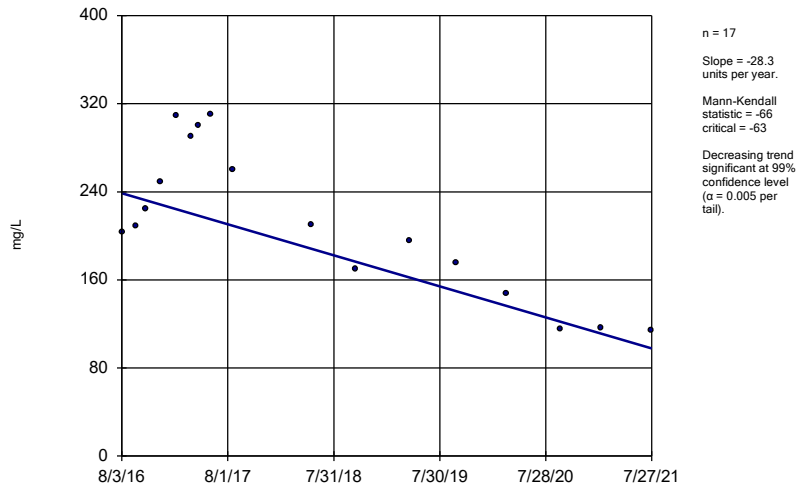
GS-AP-MW-6D



Constituent: Sulfate Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

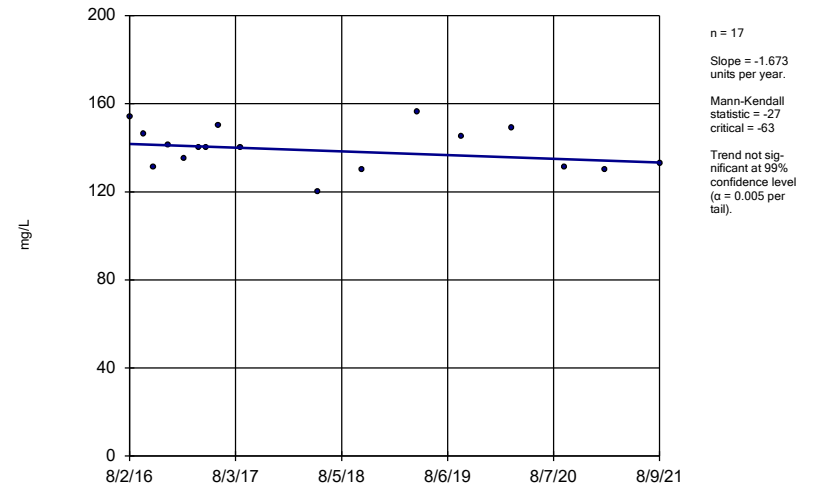
GS-AP-MW-6S



Constituent: Sulfate Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

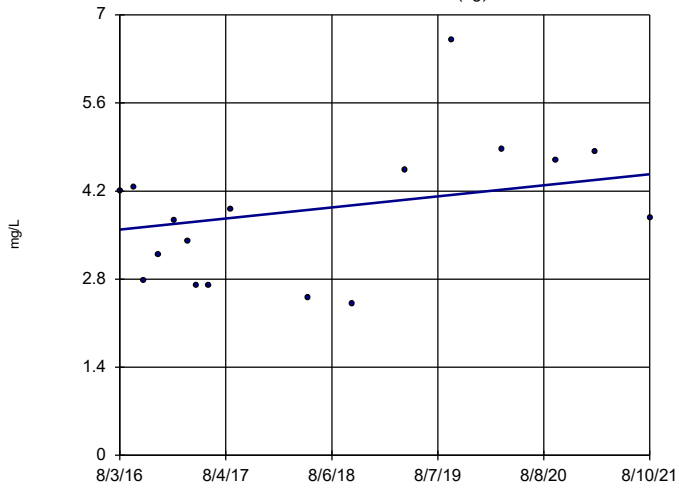
Sen's Slope Estimator

GS-AP-MW-7



Constituent: Sulfate Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

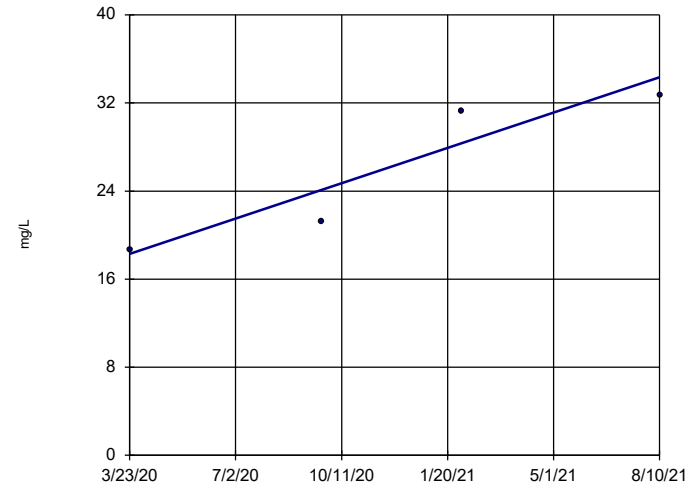
Sen's Slope Estimator GS-AP-MW-8 (bg)



n = 17
 Slope = 0.1756
 units per year.
 Mann-Kendall
 statistic = 25
 critical = 63
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 1/4/2022 9:46 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

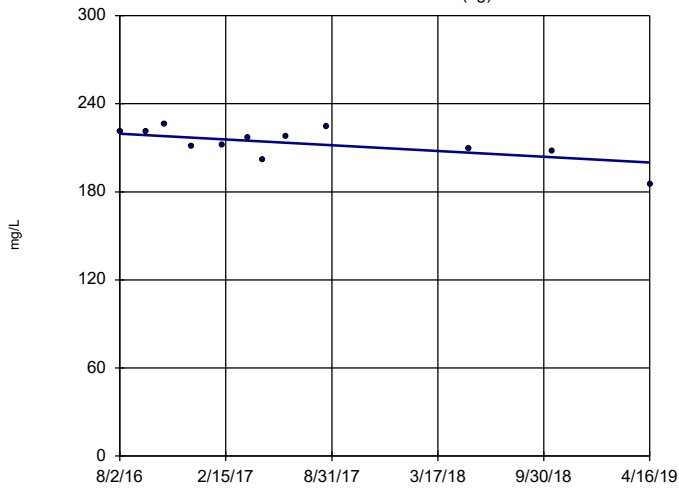
Sen's Slope Estimator GS-AP-MW-9V



n = 4
 Slope = 11.58
 units per year.
 Mann-Kendall
 statistic = 6
 critical = 8
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).
 With n = 4, no data
 set will result in
 a significant Mann-
 Kendall statistic.

Constituent: Sulfate Analysis Run 1/4/2022 9:46 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

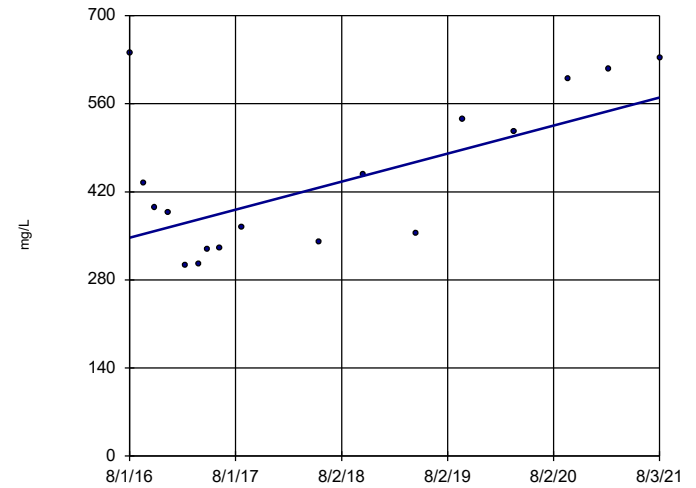
Sen's Slope Estimator GS-AP-MW-13 (bg)



n = 12
 Slope = -7.182
 units per year.
 Mann-Kendall
 statistic = -29
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 1/4/2022 9:46 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator GS-AP-MW-15

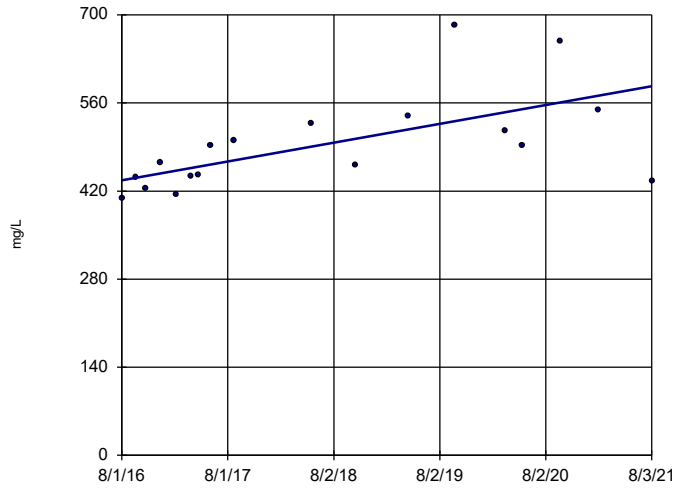


n = 17
 Slope = 44.52
 units per year.
 Mann-Kendall
 statistic = 48
 critical = 63
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 1/4/2022 9:46 PM View: All Trend
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

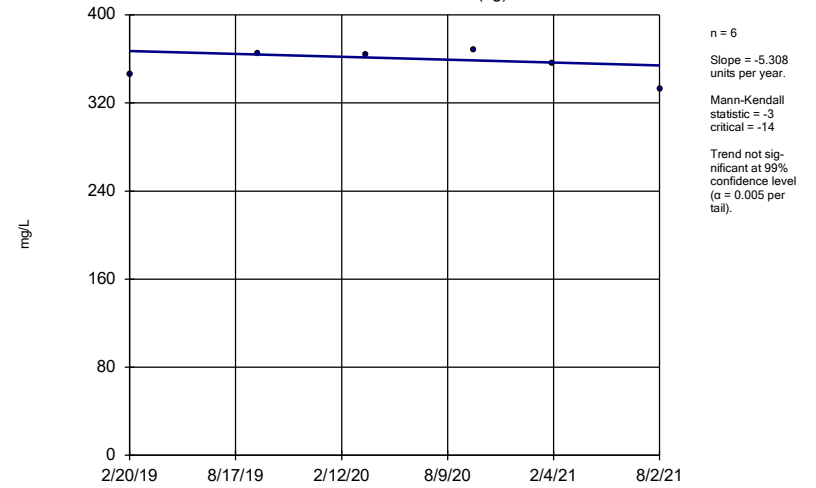
GS-AP-MW-17



Constituent: TDS Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

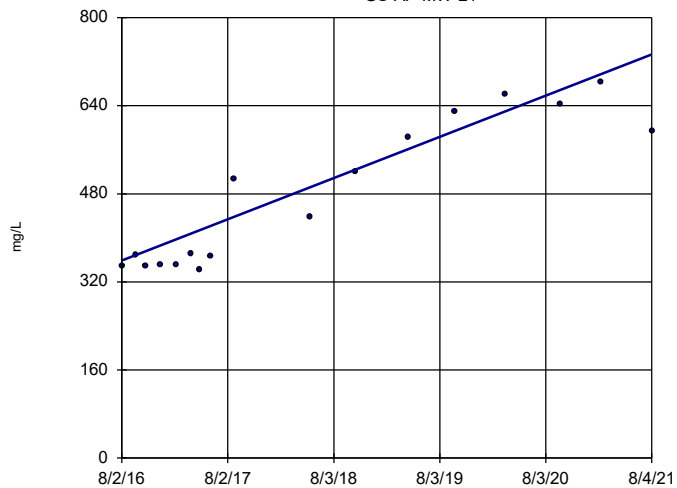
GS-AP-MW-17V (bg)



Constituent: TDS Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

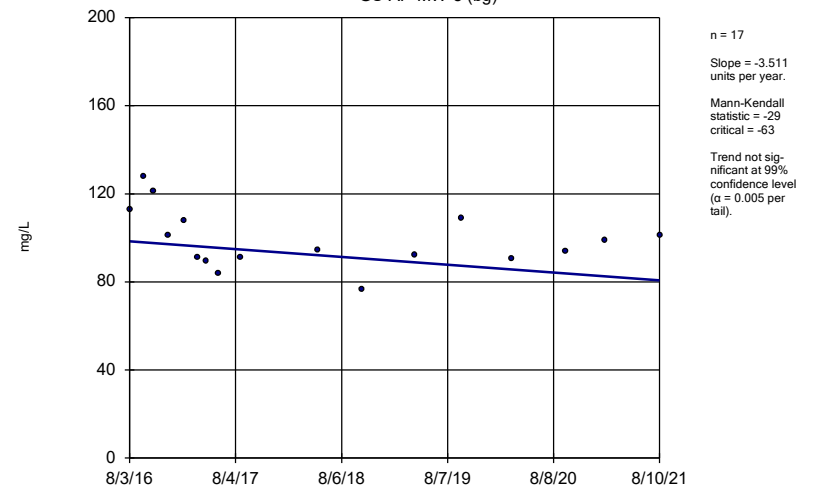
GS-AP-MW-21



Constituent: TDS Analysis Run 1/4/2022 9:46 PM View: All Trend
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-8 (bg)



Constituent: TDS Analysis Run 1/4/2022 9:46 PM View: All Trend
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.

GORGAS ASH POND GWPS			
Analyte	Units	Background	GWPS
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 1/5/2022, 4:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	GS-AP-MW-15V	0.0167	0.0105	0.01	Yes	4	0	No	0.0625	NP (normality)
Arsenic (mg/L)	GS-AP-MW-6D	0.1055	0.07816	0.01	Yes	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.285	0.207	0.01	Yes	8	0	No	0.004	NP (normality)
Lithium (mg/L)	GS-AP-MW-15	0.5151	0.2189	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3232	0.1746	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3145	0.2443	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.185	0.144	0.0809	Yes	8	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.208	0.1732	0.1	Yes	8	0	No	0.01	Param.

Confidence Intervals - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/5/2022, 4:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-AP-MW-12	0.001845	0.0003051	0.006	No	8	50	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-12V	0.002184	0.000588	0.006	No	6	0	sqrt(x)	0.01	Param.
Antimony (mg/L)	GS-AP-MW-15	0.00102	0.00065	0.006	No	8	50	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-15V	0.003598	-0.001351	0.006	No	4	0	x^2	0.01	Param.
Antimony (mg/L)	GS-AP-MW-16D	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.00102	0.00102	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21V	0.000939	0.000553	0.006	No	4	50	No	0.01	Param.
Antimony (mg/L)	GS-AP-MW-6D	0.00102	0.000828	0.006	No	8	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.00123	0.00055	0.006	No	8	62.5	No	0.004	NP (normality)
Antimony (mg/L)	GS-AP-MW-7	0.00105	0.00102	0.006	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-12	0.02022	0.003962	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-12V	0.002406	0.001012	0.01	No	6	16.67	sqrt(x)	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01819	0.007737	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15V	0.0167	0.0105	0.01	Yes	4	0	No	0.0625	NP (normality)
Arsenic (mg/L)	GS-AP-MW-16D	0.005	0.0001	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-17	0.005543	0.001612	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-19	0.003202	0.001443	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-21	0.005	0.00054	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-21V	0.02216	-0.005252	0.01	No	4	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6D	0.1055	0.07816	0.01	Yes	8	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01205	0.00588	0.01	No	8	0	x^(1/3)	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.285	0.207	0.01	Yes	8	0	No	0.004	NP (normality)
Arsenic (mg/L)	GS-AP-MW-9V	0.0005567	0.00003498	0.01	No	4	50	x^(1/3)	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.202	0.159	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-12V	1.585	1.008	2	No	6	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2093	0.0981	2	No	8	0	sqrt(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-15V	0.2196	0.1299	2	No	4	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3472	0.319	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.1238	0.07718	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.3572	0.3251	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.07393	0.0522	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.1533	0.07247	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21V	0.07541	0.01594	2	No	4	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.914	0.378	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-6S	0.124	0.0682	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	GS-AP-MW-7	0.1435	0.05594	2	No	8	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-9V	0.2355	0.133	2	No	4	0	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-16D	0.00109	0.00102	0.004	No	8	87.5	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-2	0.00138	0.00102	0.004	No	8	87.5	No	0.004	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.00102	0.000794	0.004	No	8	87.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12	0.001015	0.00031	0.1	No	8	87.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12V	0.006232	0.00009006	0.1	No	6	16.67	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-15	0.001015	0.00072	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-15V	0.009593	-0.003853	0.1	No	4	0	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-16D	0.00107	0.00068	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-17	0.00255	0.00041	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-19	0.001015	0.000258	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-2	0.001015	0.000505	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-21	0.001015	0.00042	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-21V	0.001602	-0.0006045	0.1	No	4	50	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-6D	0.001015	0.00024	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-6S	0.001015	0.00024	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	GS-AP-MW-7	0.005354	0.0005211	0.1	No	8	37.5	No	0.01	Param.
Chromium (mg/L)	GS-AP-MW-9V	0.0003379	0.0001957	0.1	No	4	50	ln(x)	0.01	Param.
Cobalt (mg/L)	GS-AP-MW-12V	0.00277	0.0002	0.006	No	6	50	No	0.0155	NP (normality)
Cobalt (mg/L)	GS-AP-MW-15	0.0002	0.00009	0.006	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-16D	0.000252	0.00009	0.006	No	8	75	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-17	0.0002	0.000102	0.006	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.000663	0.0002	0.006	No	8	75	No	0.004	NP (normality)
Cobalt (mg/L)	GS-AP-MW-7	0.003421	0.0001441	0.006	No	8	37.5	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.8814	0.3058	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12V	1.429	0.4436	5	No	6	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.9853	0.2537	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15V	1.13	0.494	5	No	4	0	No	0.0625	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.7765	0.03499	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	1.409	0.0236	5	No	8	0	sqrt(x)	0.01	Param.

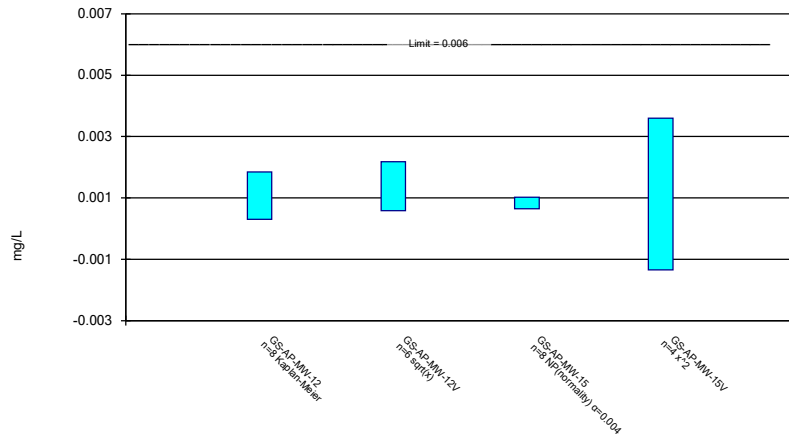
Confidence Intervals - All Results

Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/5/2022, 4:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.608	0.5609	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	1.661	0.178	5	No	8	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.182	0.3546	5	No	8	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21V	1.201	0.3964	5	No	4	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6D	0.8262	0.2886	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.165	0.2237	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	1.417	0.1941	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-9V	1.242	-0.3713	5	No	4	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.2141	0.1182	4	No	8	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12V	0.203	0.156	4	No	6	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.7004	0.4836	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15V	0.4342	0.1768	4	No	4	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1474	0.1057	4	No	8	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.3559	0.2456	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3589	0.2849	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	0.9548	0.8147	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2573	0.2067	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21V	0.7423	0.3032	4	No	4	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.16	0.127	4	No	8	0	No	0.004	NP (normality)
Fluoride (mg/L)	GS-AP-MW-6S	0.2511	0.1222	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1224	0.09864	4	No	8	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-9V	0.1988	0.1562	4	No	4	0	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-12V	0.002313	-0.0001901	0.015	No	6	33.33	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-15	0.0002	0.00008	0.015	No	8	75	No	0.004	NP (normality)
Lead (mg/L)	GS-AP-MW-16D	0.000873	0.00016	0.015	No	8	75	No	0.004	NP (normality)
Lead (mg/L)	GS-AP-MW-17	0.0002	0.000175	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-6S	0.0002	0.00008	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.003033	0.0002415	0.015	No	8	37.5	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12	0.03957	0.02442	0.0809	No	8	0	x^(1/3)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12V	0.05702	0.03405	0.0809	No	6	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.5151	0.2189	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15V	0.2472	0.02509	0.0809	No	4	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-16D	0.03642	0.03306	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.0658	0.05727	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-19	0.04371	0.03487	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-2	0.04768	0.04019	0.0809	No	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.3232	0.1746	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21V	0.2154	0.01214	0.0809	No	4	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.3145	0.2443	0.0809	Yes	8	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6S	0.06449	0.01374	0.0809	No	8	12.5	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.185	0.144	0.0809	Yes	8	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-9V	0.03213	0.02842	0.0809	No	4	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-12	0.01	0.00444	0.1	No	8	50	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-12V	0.008095	0.0004982	0.1	No	6	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15	0.0733	0.0387	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-15V	0.07019	0.01471	0.1	No	4	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-16D	0.01	0.00014	0.1	No	8	75	No	0.004	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-17	0.008691	0.002679	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.006833	0.003774	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-2	0.00708	0.001822	0.1	No	8	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.08747	0.03708	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21V	0.1787	0.008684	0.1	No	4	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6D	0.01001	0.006117	0.1	No	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6S	0.03797	0.002996	0.1	No	8	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.208	0.1732	0.1	Yes	8	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-9V	0.004057	-0.0008289	0.1	No	4	50	No	0.01	Param.
Selenium (mg/L)	GS-AP-MW-6S	0.01	0.000794	0.05	No	8	75	No	0.004	NP (normality)

Parametric and Non-Parametric (NP) Confidence Interval

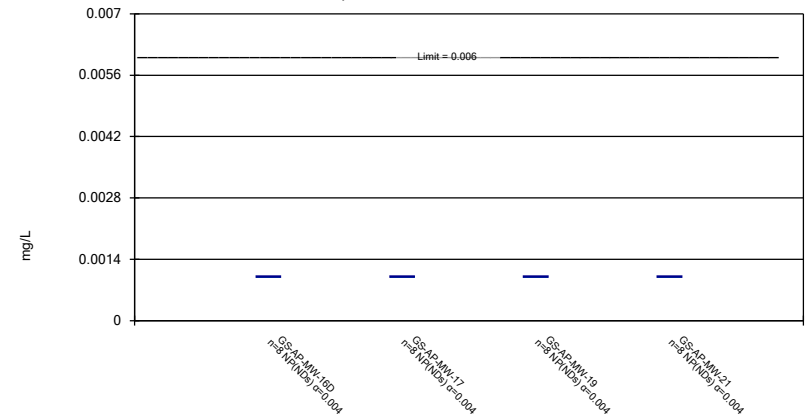
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Antimony Analysis Run 1/5/2022 4:03 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

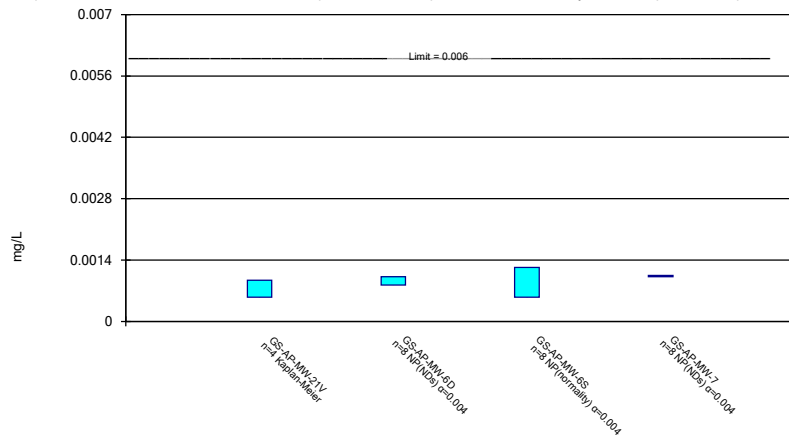
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

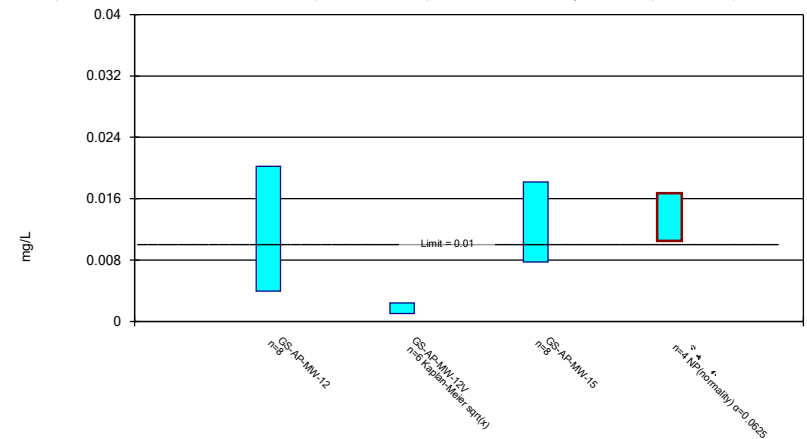
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

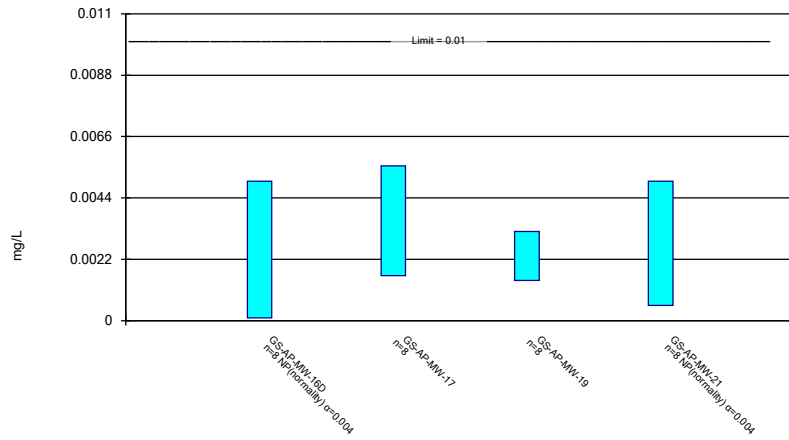
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

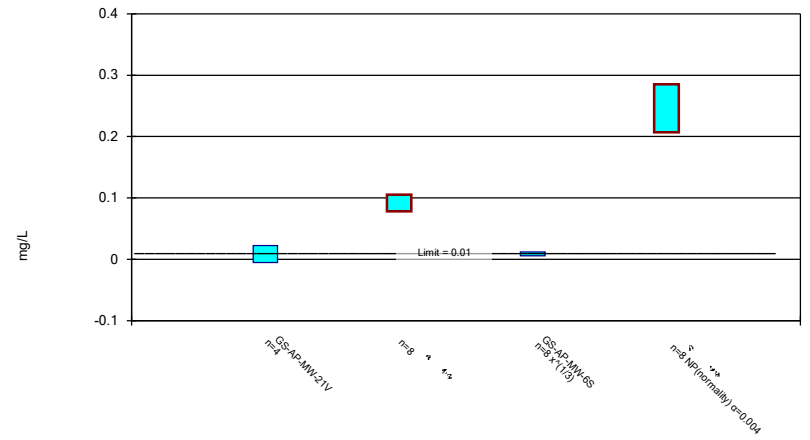
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

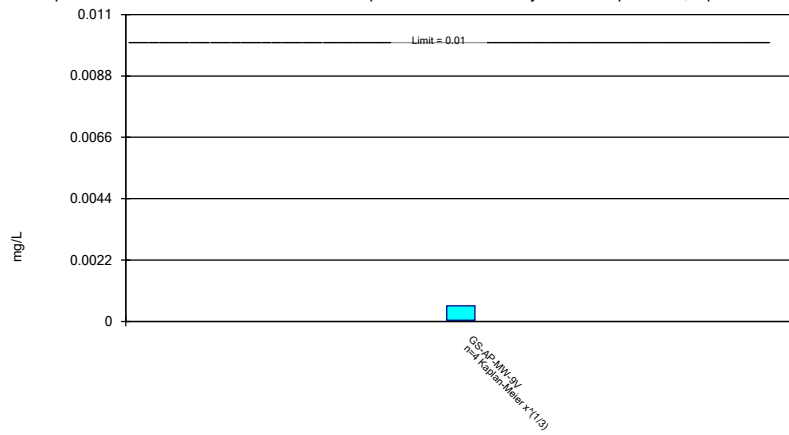
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Constituent: Arsenic Analysis Run 1/5/2022 4:03 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

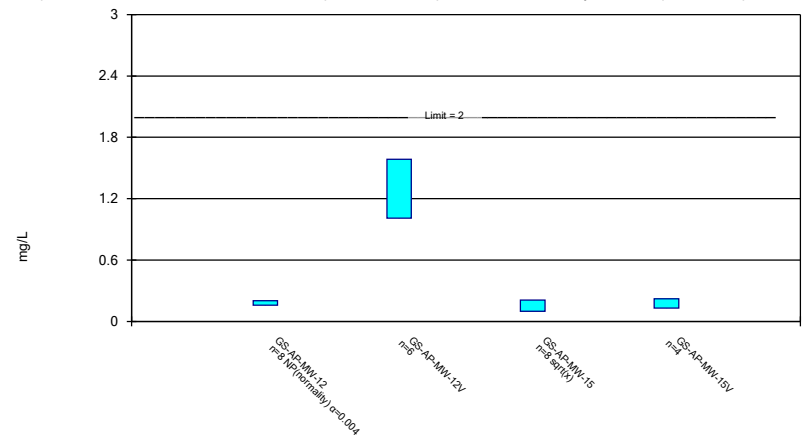
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

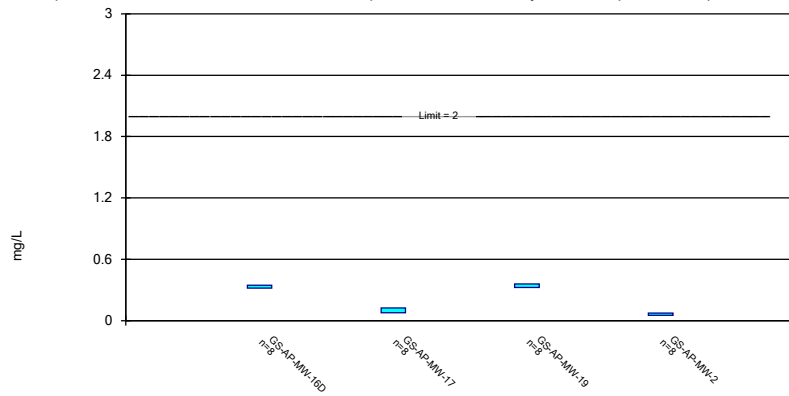
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Constituent: Barium Analysis Run 1/5/2022 4:03 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

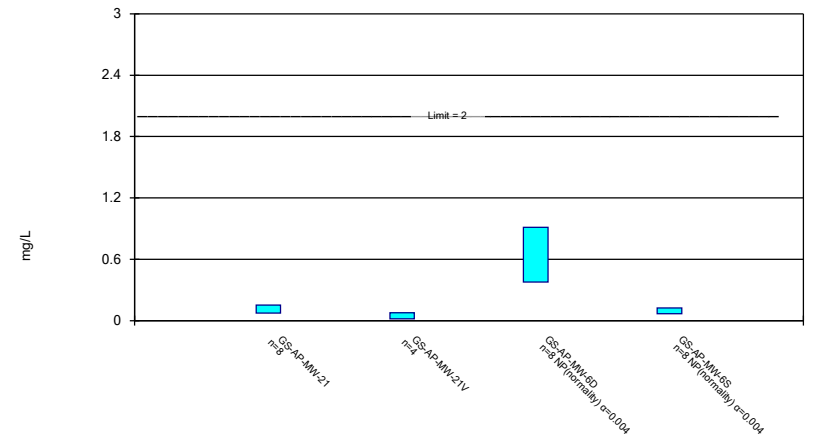
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

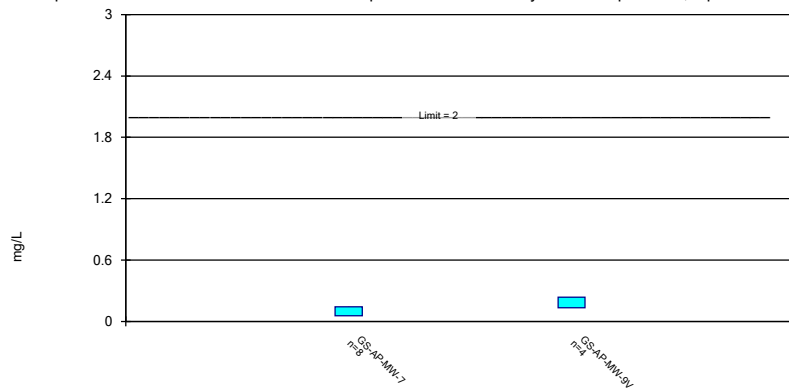
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

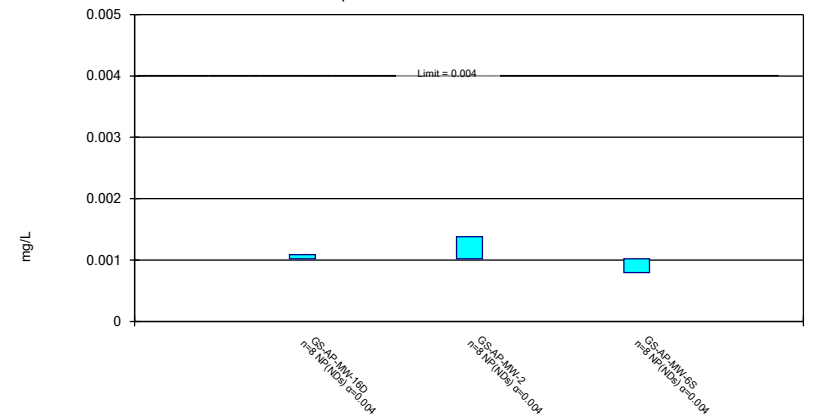
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

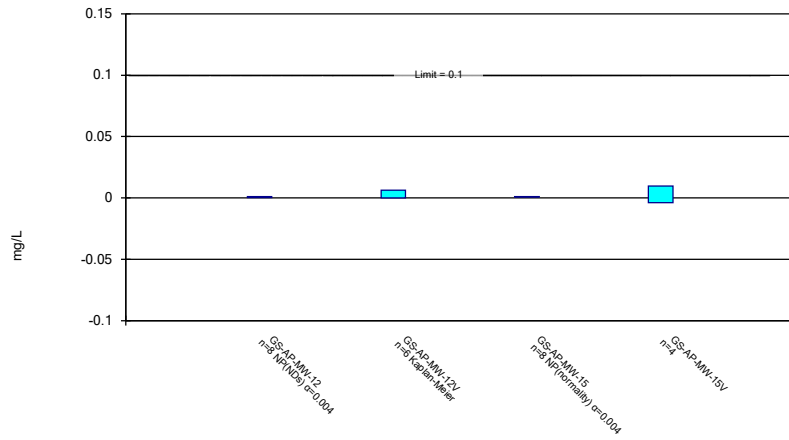
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Parametric and Non-Parametric (NP) Confidence Interval

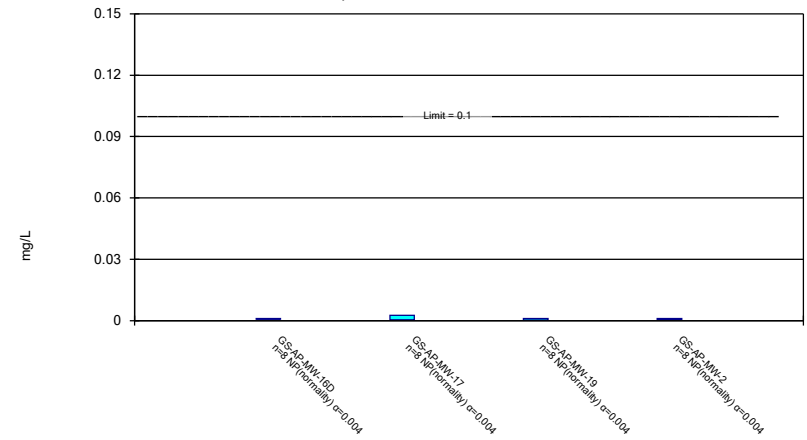
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

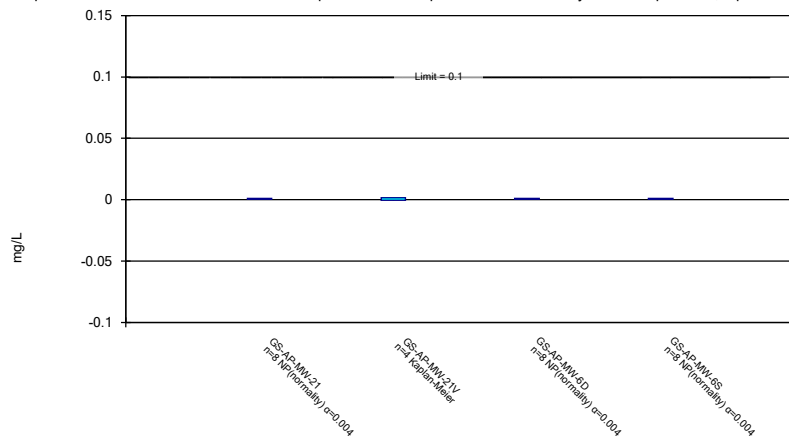
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

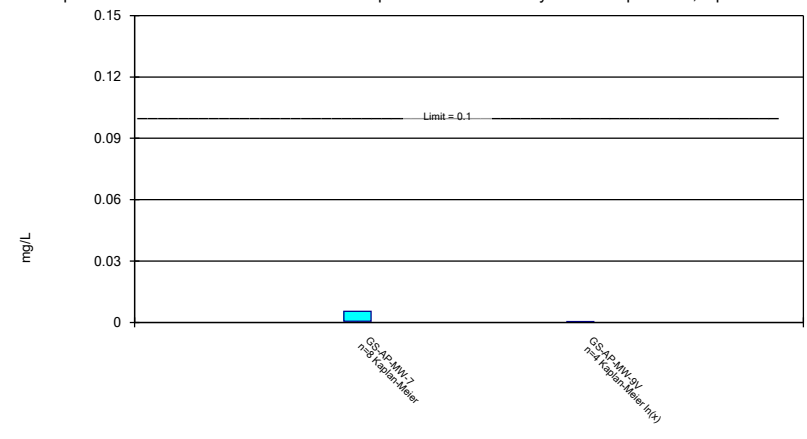
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

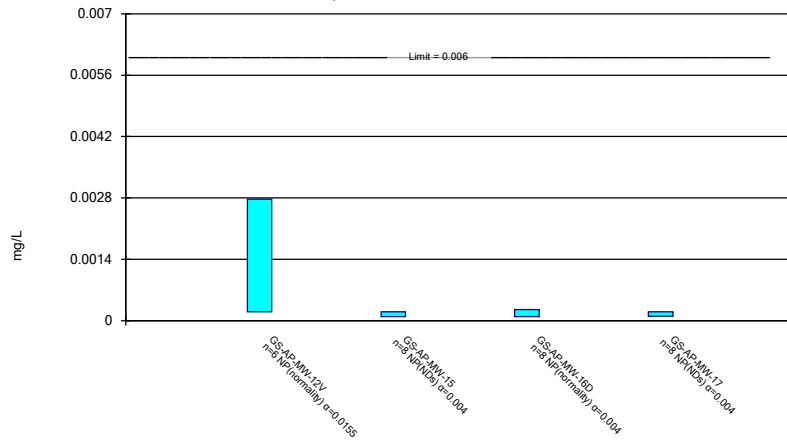
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Constituent: Chromium Analysis Run 1/5/2022 4:04 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

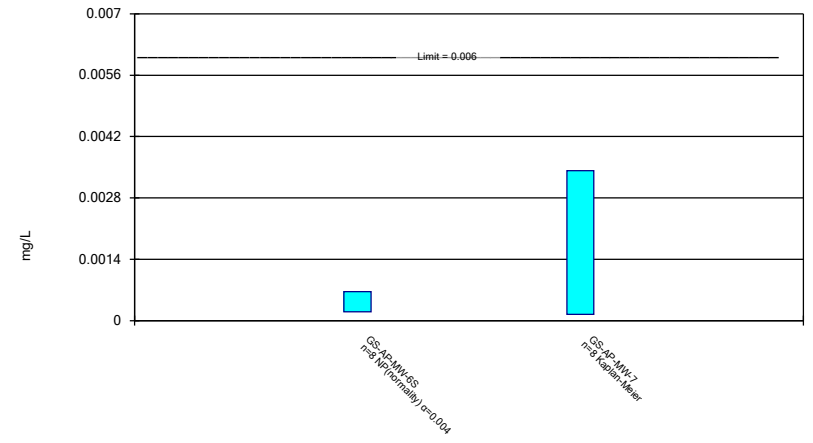
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Constituent: Cobalt Analysis Run 1/5/2022 4:04 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

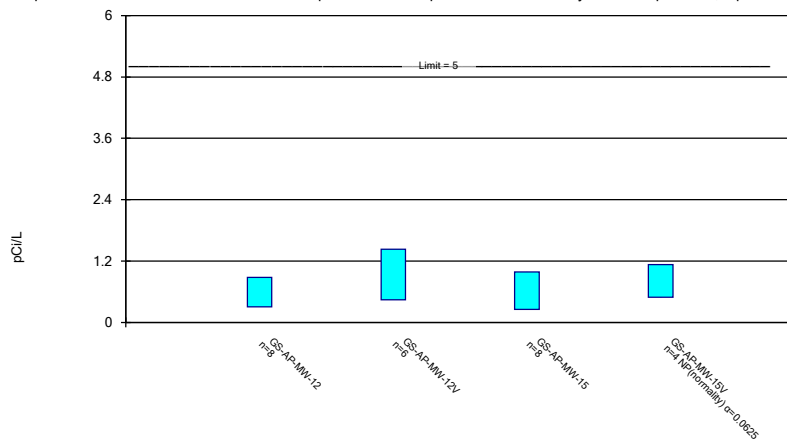
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 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

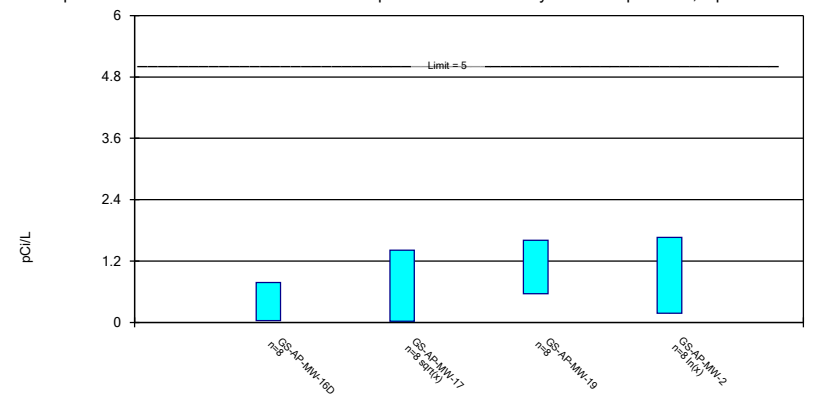
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Constituent: Combined Radium 226 + 228 Analysis Run 1/5/2022 4:04 PM View: AIV
 Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

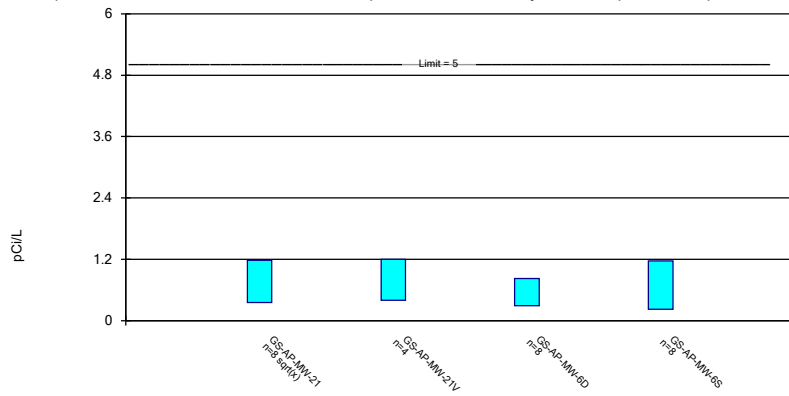
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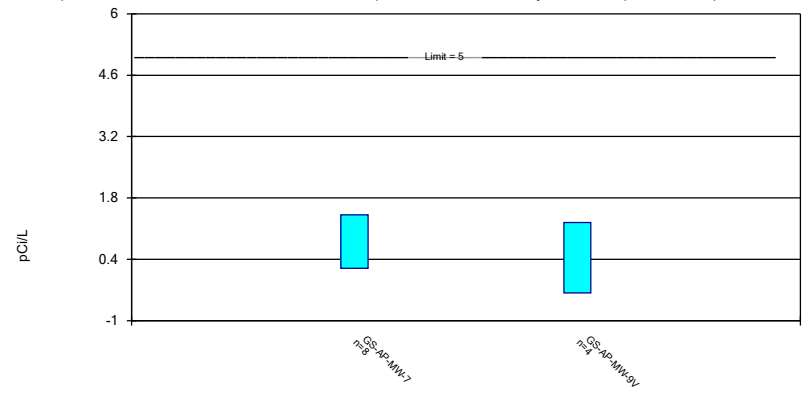
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Parametric Confidence Interval

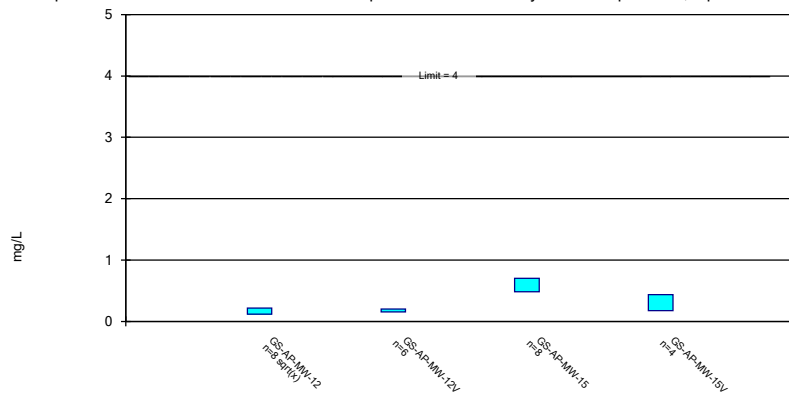
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Constituent: Combined Radium 226 + 228 Analysis Run 1/5/2022 4:04 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

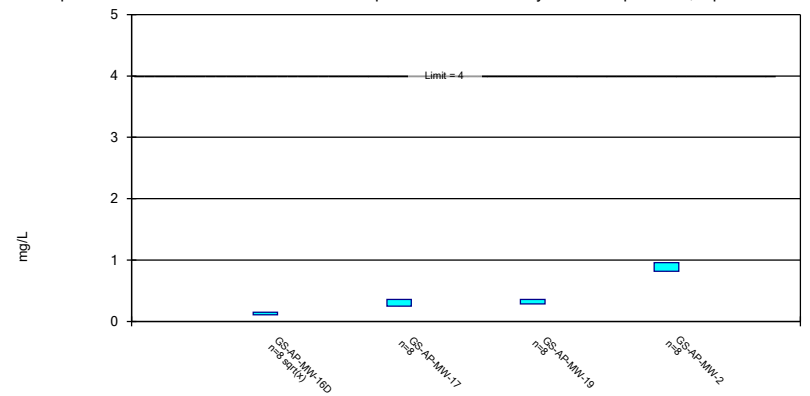
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Constituent: Fluoride Analysis Run 1/5/2022 4:04 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

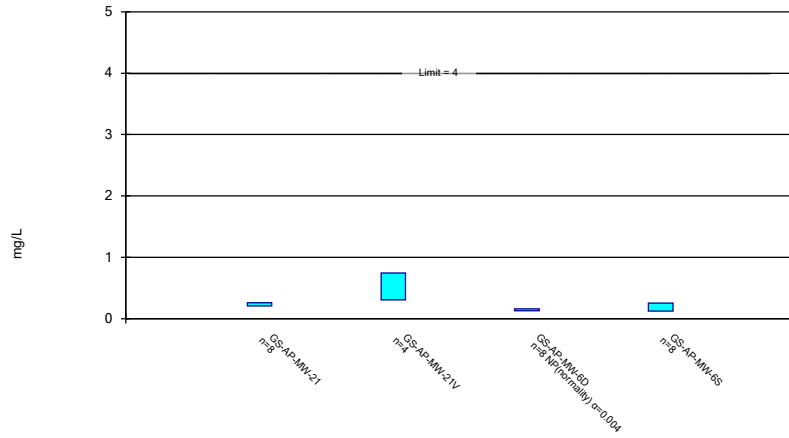
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Constituent: Fluoride Analysis Run 1/5/2022 4:04 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

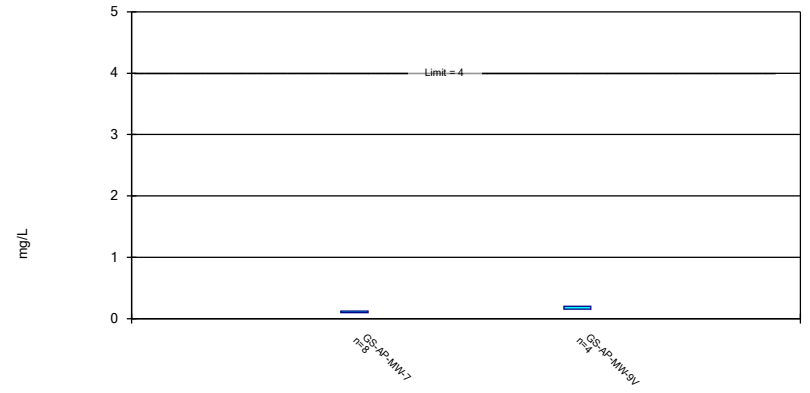
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

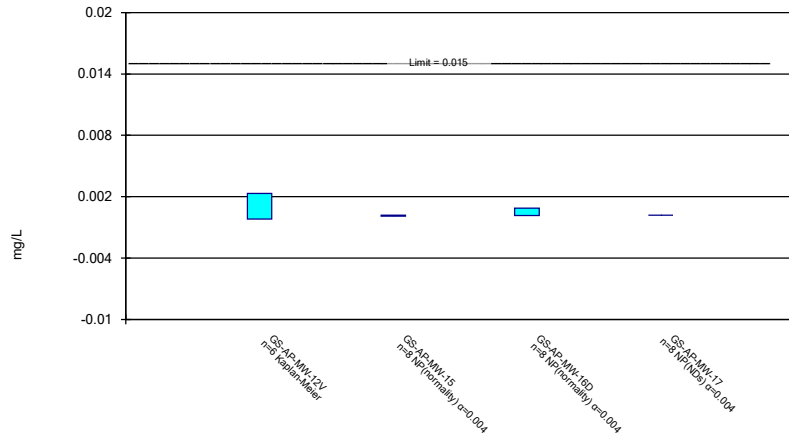
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Parametric and Non-Parametric (NP) Confidence Interval

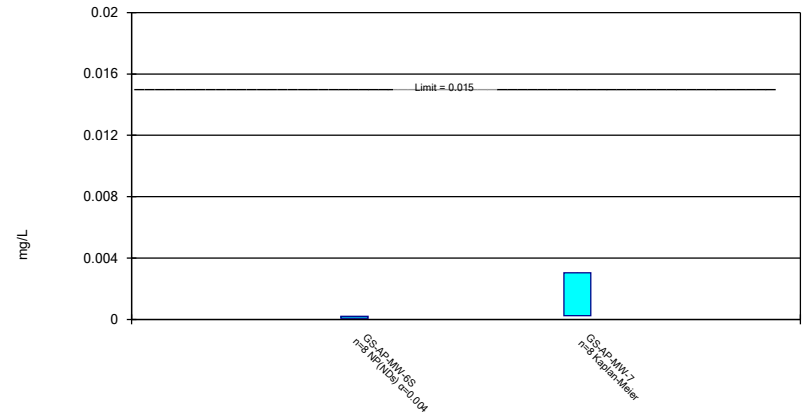
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

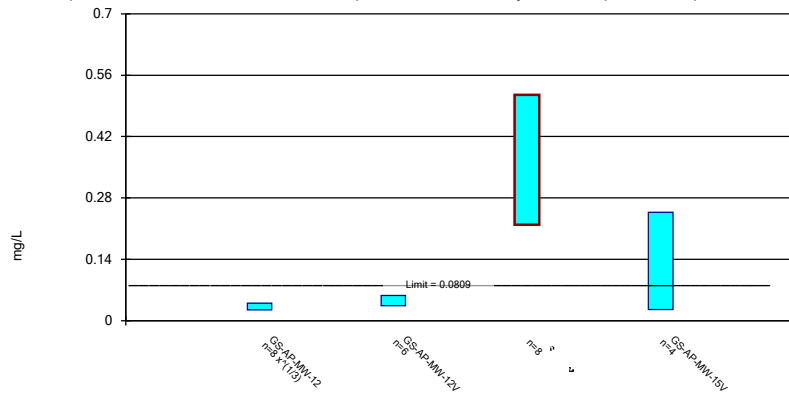
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

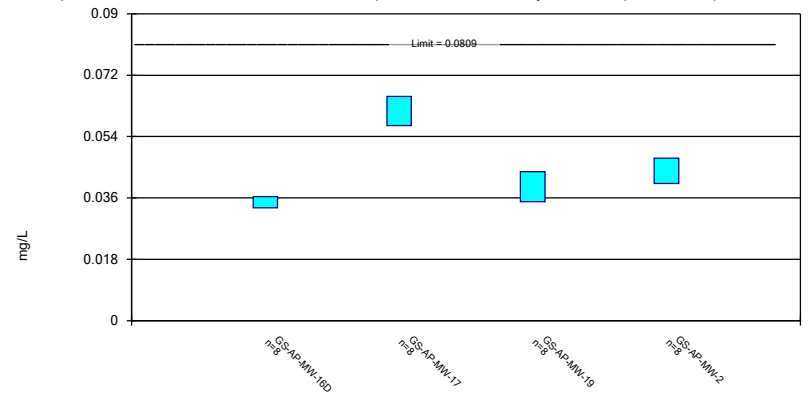
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Parametric Confidence Interval

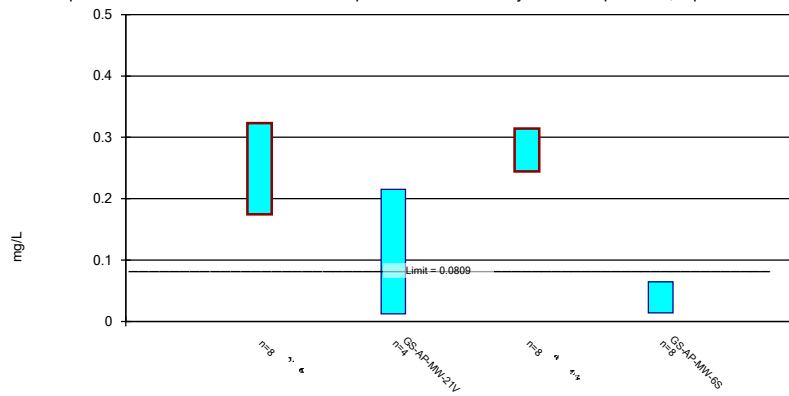
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Parametric Confidence Interval

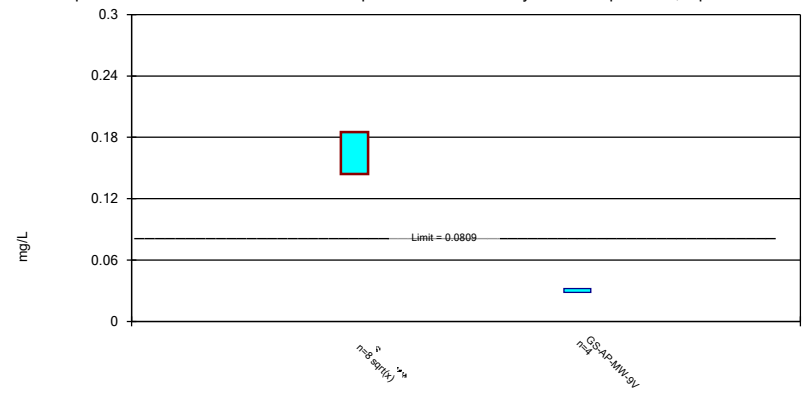
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

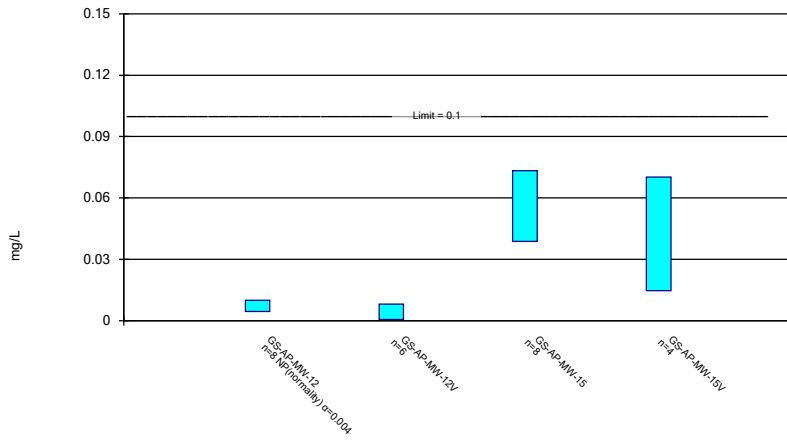
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

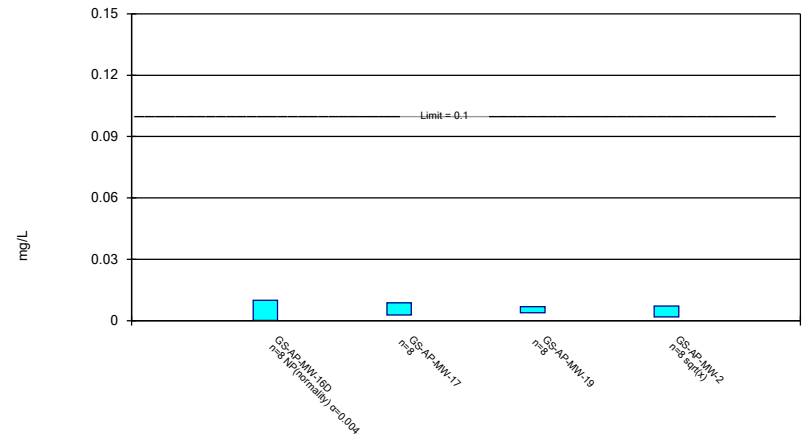
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric and Non-Parametric (NP) Confidence Interval

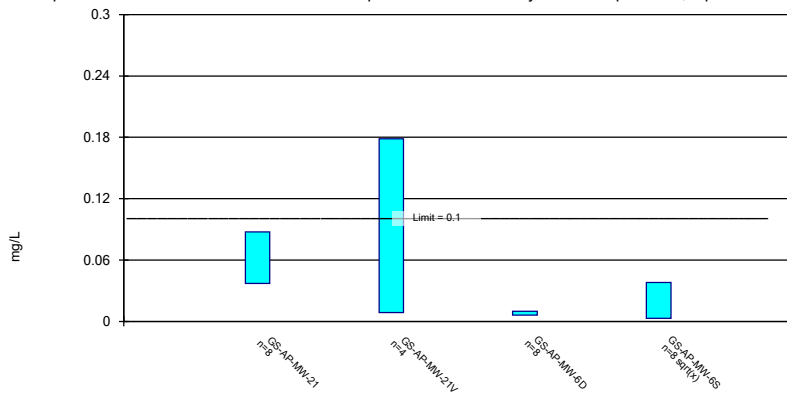
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Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

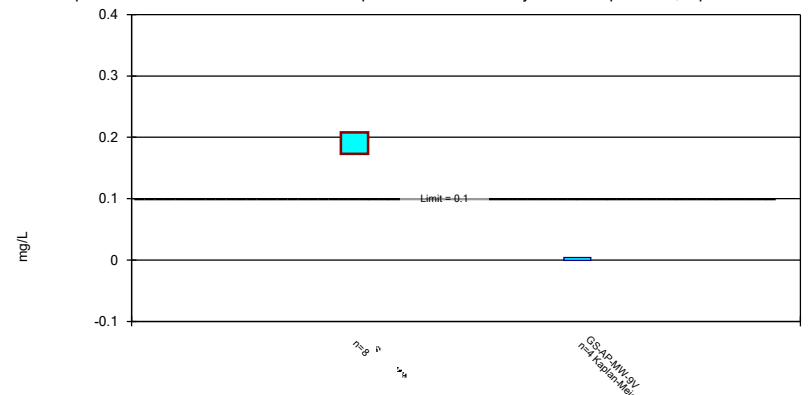
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Constituent: Molybdenum Analysis Run 1/5/2022 4:04 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Parametric Confidence Interval

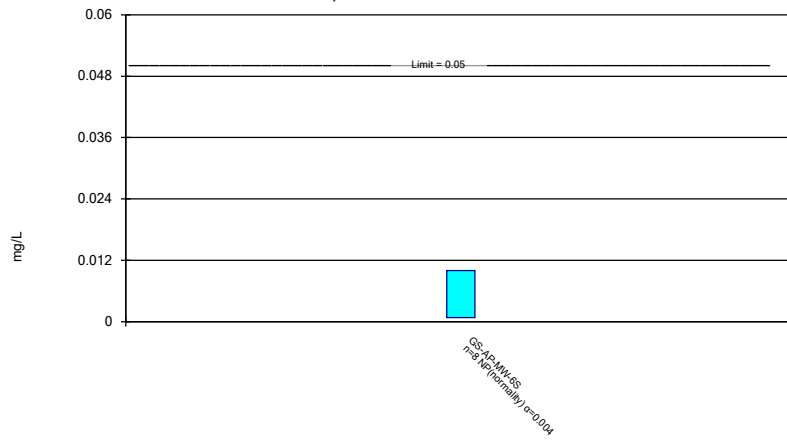
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Constituent: Molybdenum Analysis Run 1/5/2022 4:04 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 1/5/2022 4:04 PM View: AIV
Plant Gorgas Client: Southern Company Data: Gorgas Ash Pond

Appendix H



Alternate Source Demonstration

Alabama Power Company, Plant Gorgas Ash Pond

Submitted to:



Alabama Power Company

600 18th Street, North Birmingham, Alabama, 35203

Submitted by:

Golder Associates Inc.

5170 Peachtree Road Building 100 Suite 300, Atlanta, Georgia, USA 30341

+1 770 496-1893

20146747

July 2021

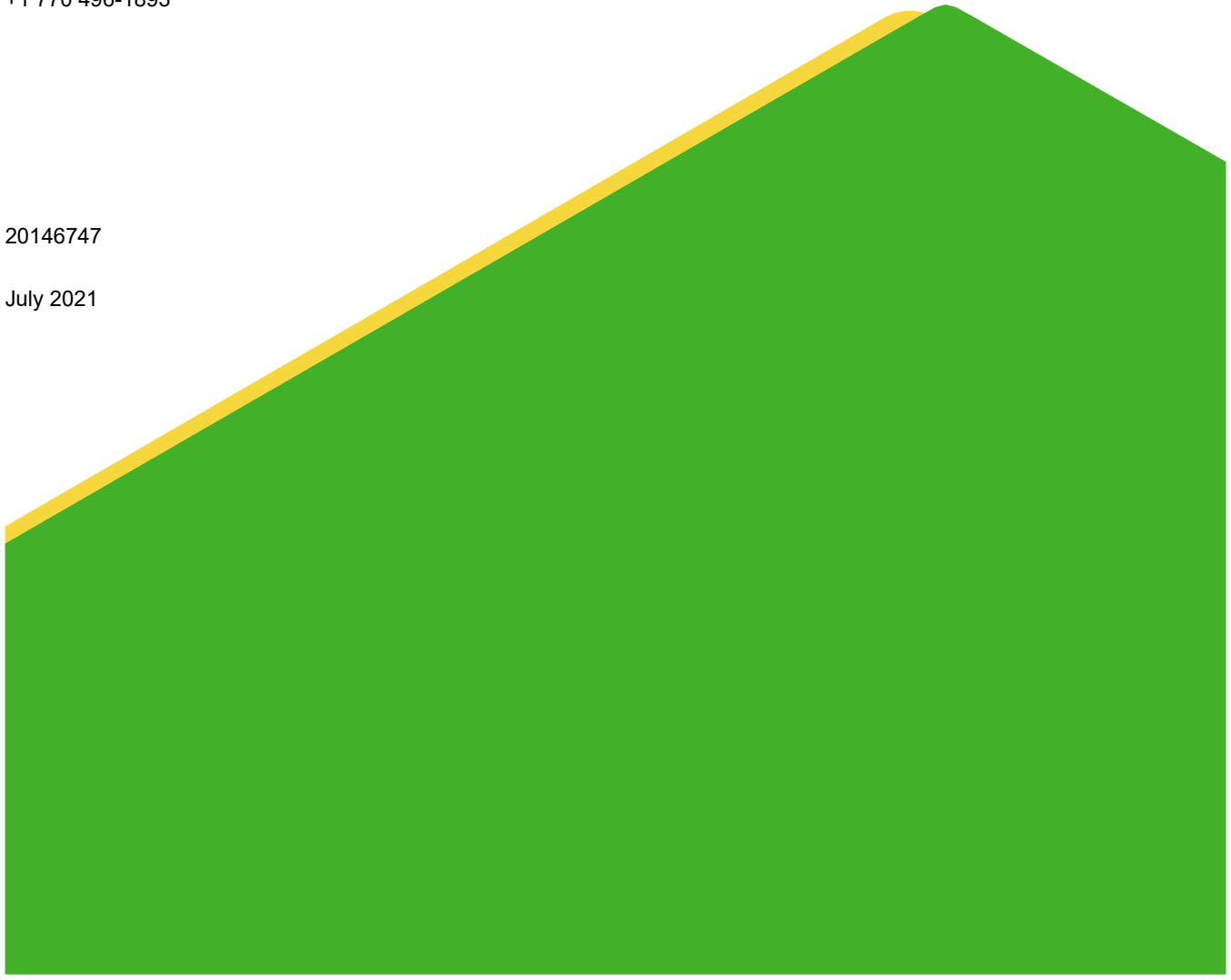


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FIGURES

Figure 1: Site Location Map

Figure 2: Site Plan and Well Location Map

Figure 3: Trilinear (Piper) Diagram of the relative abundances of major ions in groundwater, background water, and Ash Pond porewater at the Plant Gorgas Ash Pond.

Figure 4: Ternary Diagram of the relative abundance of boron (as boric acid and multiplied by 20), lithium, and chloride in groundwater, background water, and Ash Pond porewater at the Plant Gorgas Ash Pond

APPENDIX

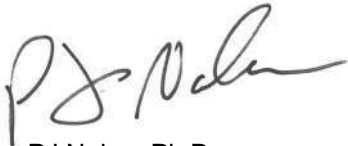
Appendix A: Sequential Extraction Results

Certification

This *Alternate Source Demonstration for Lithium, Alabama Power Company Plant Gorgas*, Walker County, Alabama, has been prepared in compliance with applicable United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) and Alabama Department of Environmental Management (ADEM) Admin. Code r. 335-13-15-.06(6)(g)4.(ii) under the direction of a licensed professional engineer with Golder Associates Inc.

I hereby certify that this *Alternate Source Demonstration for Lithium* has been prepared to meet the requirements of 40 CFR § 257.95(g)(3)(ii) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4.(ii).

Golder Associates Inc.



PJ Nolan, Ph.D.
Senior Project Geochemist



Dawn L. Prell
Senior Hydrogeologist



Gregory Hebel, PhD, PE
Principal, Practice Leader

pjn/dlp/rv/gh

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[https://golderassociates.sharepoint.com/sites/129866/project/files/5 technical work/reporting/final/gorgas ap-1 draft asd final_8.2.2021.docx](https://golderassociates.sharepoint.com/sites/129866/project/files/5%20technical%20work/reporting/final/gorgas_ap-1_draft_asd_final_8.2.2021.docx)

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) (CCR Rule or The Rule) and Alabama Department of Environmental Management (ADEM) Admin. Code r. 335-13-15-.06(6)(g)4.(ii), this Alternate Source Demonstration (ASD) has been prepared to document an alternate source for Statistically Significant Levels (SSLs) of lithium identified at Alabama Power Company's Plant Gorgas Ash Pond (the "Site"). This document satisfies the requirements of § 257.95(g)(3)(ii) and r. 335-13-15-.06(6)(g)4.(ii), which allows the owner or operator to demonstrate that a source other than the CCR Unit has caused an SSL, and that the SSL was the result of an alternate source or resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

As documented by this report, an alternate source exists within the formation by which the wells are installed providing the hydraulic connection and the SSLs for lithium at monitoring wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 at the Site are attributed to naturally occurring sources of lithium in subsurface aquifer materials and/or grout contamination in two of these wells and are not likely the result of a release from the CCR unit.

2.0 SITE DESCRIPTION AND BACKGROUND

Plant Gorgas, a century-old coal-fired power plant, is located in southeast Walker County, Alabama near the Jefferson County line and is owned and operated by the Alabama Power Company. The Plant is located approximately 25 miles northwest of Birmingham, AL, and is primarily surrounded by industrial and residential land use. The Mulberry Fork, a tributary of the Black Warrior River, runs between Plant Gorgas and the Ash Pond. Figure 1 presents the location of Plant Gorgas, including local topography and surrounding features.

2.1 Ash Pond

Beginning in 2016, monitoring wells and piezometers were installed at the Site as part of a groundwater monitoring unit for the Plant Gorgas Ash Pond (Anchor QEA 2019). Currently, the groundwater monitoring unit consists of 10 monitoring wells and 10 piezometers screened in the uppermost aquifer. In 2019, 13 additional wells were installed for the purpose of vertical and horizontal delineation of Groundwater Protection Standards (GWPS) exceedances in groundwater as required by § 257.95(g). Monitoring well GS-AP-MW-8 is situated upgradient of the Site and is used as a background monitoring well for the Ash Pond (SCS 2020). The locations of the Ash Pond and the monitoring well and piezometer network are shown on Figure 2. Figure 2 also identifies the locations of background well GS-AP-MW-8 and the wells that are the focus of this ASD, GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21.

2.2 Geological Setting

The Site is situated within the Black Warrior Basin, a late Paleozoic basin formed as a result of unification between the Appalachian and Ouachita thrust belts (Diehl et al. 2004). Plant Gorgas is directly underlain by the Pottsville formation, which extends downwards to a depth of approximately 2,100 feet below ground surface. This formation consists of cyclic sequences of marine shale/claystone, siltstone, sandstone, conglomerates, and individual coal beds (Pashin and Raymond 2004). Deeper stratigraphy is characterized by carbonates, shales, chert, and sandstones that are Mississippian to Cambrian in age (Raymond et al. 1988).

The Plant Gorgas Ash Pond is directly underlain by the Pratt Coal Group of the Pottsville Formation (Ward II et al. 1989). In general, the Pratt Coal Group is comprised of mudstone, shale, fine-grained sandstone, and interbedded coal. The Pratt Coal Group typically contains three named coal seams, each of which is separated by 25 to 50 feet of intra-burden: in descending order, they are the Pratt, Nickel Plate, and American coal seams (Capp 1981).

2.3 Hydrogeological Setting

The Site is underlain by the Pottsville aquifer which is primarily composed of Pennsylvanian-aged sandstones, shales, conglomerates, and coal. The Pottsville aquifer is generally considered to be confined due to the large permeability contrasts between lithologic units (Kopaska-Merkel 2005). Groundwater in the Pottsville aquifer is found within fractures, bedding planes, and weathered sandstone, with vertical flow occurring within high-angle fractures (Anchor QEA 2019; Kopaska-Merkel 2005). Groundwater at the Site flows radially away from the Ash Pond at estimated velocities ranging from 0.33 ft to 3.14 ft per day. The depth to groundwater varies across the Site, ranging from 30 to 240 feet below ground surface (Anchor QEA 2019).

Background well GS-AP-MW-8, the sole upgradient well, is screened between 40 and 60 feet below ground surface, above the Pratt Coal Group, in overlying sandstone and mudstone. Downgradient wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 are each screened over 10-foot intervals in the Pratt Coal group, approximately 200 feet below ground surface (Anchor QEA 2019).

3.0 STATISTICAL ANALYSES METHODS

The groundwater monitoring well network at Plant Gorgas is currently in assessment monitoring. The following sections summarize the assessment monitoring at Plant Gorgas, present the statistical analysis method for evaluation of assessment monitoring constituents (i.e., Appendix IV parameters) as they pertain to this ASD, discuss the test methods used for analysis of soil and rock samples, and describe the approach to geochemical modeling.

During assessment monitoring, concentrations of Appendix IV constituents are compared to an applicable GWPS. As specified in 40 CFR § 257.95(h), the GWPS is the Maximum Contaminant Level (MCL) or the background concentration for constituents for which an MCL has not been established. The upper tolerance limits (UTLs) are used to calculate background limits from pooled upgradient well data to determine the site-specific background concentration/GWPS.

3.1 Assessment Monitoring

Currently, the site is evaluating groundwater remedies following completion of an Assessment of Corrective measures as a result of SSLs. Pursuant to 40 CFR § 257.95(a), monitoring wells are sampled for analysis of Appendix IV parameters semi-annually. Since the installation of the groundwater monitoring network in 2016, groundwater samples have been collected at the Site on a semi-annual basis. Data from the most recent groundwater sampling event conducted in September are presented in *2020 Annual Groundwater Monitoring and Corrective Action Report* (SCS, 2021). This report describes data collected during the most recent sampling event, conducted in September 2020, along with previously collected data from as early as March 2019 (SCS 2020). Methods for sampling and analysis are presented in past reports (SCS 2020).

3.2 Statistically Significant Levels

On January 13, 2019, Plant Gorgas placed a notification of SSL exceedances in the operating record as required by 40 CFR § 257.95 (SCS 2020). Using the GWPS established according to both 40 CFR § 257.95(h) and r. 335-13-15-.06(6)(g)4.(ii), the results from the statistical analysis identified constituents exceeding the groundwater protection standards. This ASD was prepared to address the following SSLs:

Table 3.2: Statistically Significant Level Exceedances	
Ash Pond Monitoring Wells	Appendix IV Parameter
GS-AP-MW-15	Lithium
GS-AP-MW-15V	Lithium
GS-AP-MW-21	Lithium

This ASD has been prepared to document an alternate source for the SSLs of lithium at monitoring wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 at the Ash Pond. Other SSLs identified for the Ash Pond will be addressed and are included in the Assessment of Corrective Measures initiated in June 2019 (Anchor QEA 2019).

3.3 Test Methods for Rock

Chemical analysis and sequential extraction analysis of rock was conducted on 13 samples (one sample from one upgradient borehole) and ten downgradient boreholes (two samples collected from the two of the same boreholes at different depths) surrounding the Ash Pond (Appendix A).

The sequential extraction procedure (SEP) consists of a seven-step metals extraction from solids to evaluate the distribution of metals over seven operationally defined mineral fractions and assess their corresponding potential environmental stability. The seven-step SEP is defined by specific extraction steps as follows (based on a modified Tessier et al. (1979) method):

SEQUENTIAL EXTRACTION PROCEDURE				
ENVIRONMENTALLY AVAILABLE ↑ Increasing availability	Step 1	Increasing Extraction Strength ↓	Exchangeable Fraction	This extraction includes trace elements that are electrostatically adsorbed to overburden minerals
	Step 2		Carbonate Fraction	This extraction targets trace elements that are adsorbed or otherwise bound to carbonate minerals
	Step 3		Non-Crystalline Materials Fraction	This extraction targets trace elements that are complexed by amorphous minerals
	Step 4		Metal Hydroxide Fraction	This extraction targets trace elements bound to hydroxides of iron, manganese, and/or aluminum
	Step 5		Organic Fraction	This extraction targets trace elements strongly bound via chemisorption to organic material
NON-ENVIRONMENTALLY AVAILABLE	Step 6		Acid/Sulfide Fraction	The extraction is used to identify trace elements present in sulfide minerals
	Step 7		Residual Fraction	Trace elements present in the solid after the previous extractions, such as in silicates, phosphates, and refractory oxides, are extracted through complete dissolution of the remaining solid

Steps 1 through 7 represent increasingly rigorous digestions, dissolving increasingly insoluble components of the samples. Metals extracted in Steps 1 through 5 are considered environmentally available, whereas metals extracted in Steps 6 and 7 are present in non-environmentally available fraction and are not expected to be released rapidly and in appreciable amounts under conditions typically encountered in aquifers, except in the case of acidification or other excursions from typical groundwater conditions (Tessier et al. 1979). However, the non-environmentally available fraction can be released gradually over long periods of time due to chemical weathering (e.g., oxidation, dissolution). Metals residing in environmentally available fractions, such as the carbonate fraction, are much more likely to become mobile due to changes in groundwater chemistry than metals bound within a sulfide or residual fraction. Metals that are exchangeable or present in the non-crystalline materials fraction can also be indicative of attenuation, for instance through sorption or other complexation mechanisms. The cumulative concentration of a metal measured from all seven SEP steps can be compared to the concentration determined from the total metal analysis for compositional accountability.

3.4 Geochemical Evaluation

The Geochemist’s Workbench version 12 (Bethke 2015) was used to generate graphical representations of geochemical data in the form of trilinear plots (also known as Piper plots) displaying the relative abundance of major cations and anions. In addition, ternary plots were prepared displaying the relative abundance of several conservative ions, including the species of interest (i.e., lithium).

The potential for mineral precipitation was assessed in Geochemist Workbench using a saturation index (SI) calculated according to the following equation:

$$SI = \log (IAP/K_{sp})$$

The saturation index is the ratio of the ion activity product (IAP) of a mineral to the solubility product (K_{sp}). An SI value greater than zero indicates that the solution is supersaturated with respect to a particular mineral phase and, therefore, precipitation of the mineral may occur. An evaluation of precipitation kinetics is then required to determine whether the supersaturated mineral will indeed form. An SI value less than zero indicates the solution is undersaturated with respect to a particular mineral phase and this mineral may dissolve. An SI value close to zero indicates equilibrium conditions exist between the mineral and the solution.

4.0 ALTERNATE SOURCE DEMONSTRATION

The SSL of lithium in groundwater at monitoring wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 appears to have resulted from alternate sources. The following five lines of evidence support this conclusion:

- 1) Lithium concentrations in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 exceed the GWPS, but the ratios of lithium to boron concentrations differ substantially from that of Ash Pond porewater and the relative abundance of boron in comparison to other conservative ions (i.e., chloride and lithium) in groundwater in those wells compared to Ash Pond porewater, indicate an alternate source of lithium. This demonstrates that the concentration observed in groundwater could not have resulted from the unit.
- 2) Major ion abundances indicate groundwater from GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 has a different composition than Ash Pond porewater and background groundwater from GS-AP-MW-8.
- 3) Relatively high sodium concentrations (>200 mg/L) and alkaline pH of groundwater (> 10) at GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 relative to upgradient water and Ash Pond porewater indicate the potential for sodium-bentonite and grout contamination; sodium-bentonite may allow for cation exchange with lithium.
- 4) Lithium is naturally occurring in the bedrock at Plant Gorgas as identified by chemical analysis and sequential extraction of rock samples. Locally elevated lithium concentrations were measured in rock samples from GS-AP-MW-21.

Each of the identified lines of evidence supporting the natural occurrence of lithium at Plant Gorgas is discussed in more detail in the sections below.

4.1 Ratio of Lithium to Boron

Lithium was detected in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 at concentrations above the GWPS, but the ratio of lithium to boron differs substantially from that of Ash Pond porewater.

The ratio of lithium to boron in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 does not correspond to the ratios in Ash Pond porewater or background/upgradient water (Table 1). Because lithium and boron are conservative parameters and travel essentially unattenuated, the ratio of lithium to boron should remain constant if lithium in groundwater in wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 originated from Ash Pond porewater (EPRI 2012). As this was not observed, another source must be contributing lithium to groundwater at wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21.

Table 1: Concentrations of Lithium and Boron and the Lithium to Boron Ratios in Site Groundwater and Porewater

Monitoring Well	Description	Li (mg/L)	B (mg/L)	Li:B
GS-AP-MW-8	Upgradient, Background Well	0.05	0.024	2:1
Ash Pond Porewater ^[1]	CCR Impacted Water	1.10	4.02	0.3:1
GS-AP-MW-15	Downgradient Well	0.38	0.06	6.3:1
GS-AP-MW-15V	Downgradient Well	0.21	0.06	3.5:1
GS-AP-MW-21	Downgradient Well	0.38	0.08	4.8:1

Notes:

mg/L = milligrams per liter.

[1] Ash Pond porewater is represented by an average concentration of boron and lithium at GAP-B-01, GAP-B-02, GAP-B-66.

4.2 Major Ion Abundances

Relative major ion abundances indicate groundwater at GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 has a different composition than Ash Pond porewater and background groundwater from GS-AP-MW-8.

A trilinear (Piper) diagram, which plots the relative major ion abundance, shows substantial variation in water type between downgradient groundwater, background water, and Ash Pond porewater samples at the Site. The water types of GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 (Na-CO₃ and Na-CO₃-SO₄, respectively) are different from both Ash Pond porewater (Ca-SO₄ or Ca-SO₄-HCO₃) and background water (Mg-Na-HCO₃), which indicates a different source for these wells (Figure 3). Additionally, mixing, which is generally shown on a Piper diagram by a downgradient water sample plotting on a straight line between a potential source water and another contributor, was not observed for GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 (EPRI, 2012). Thus, the elevated lithium concentrations observed in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 are unlikely to have been caused by the Ash Pond.

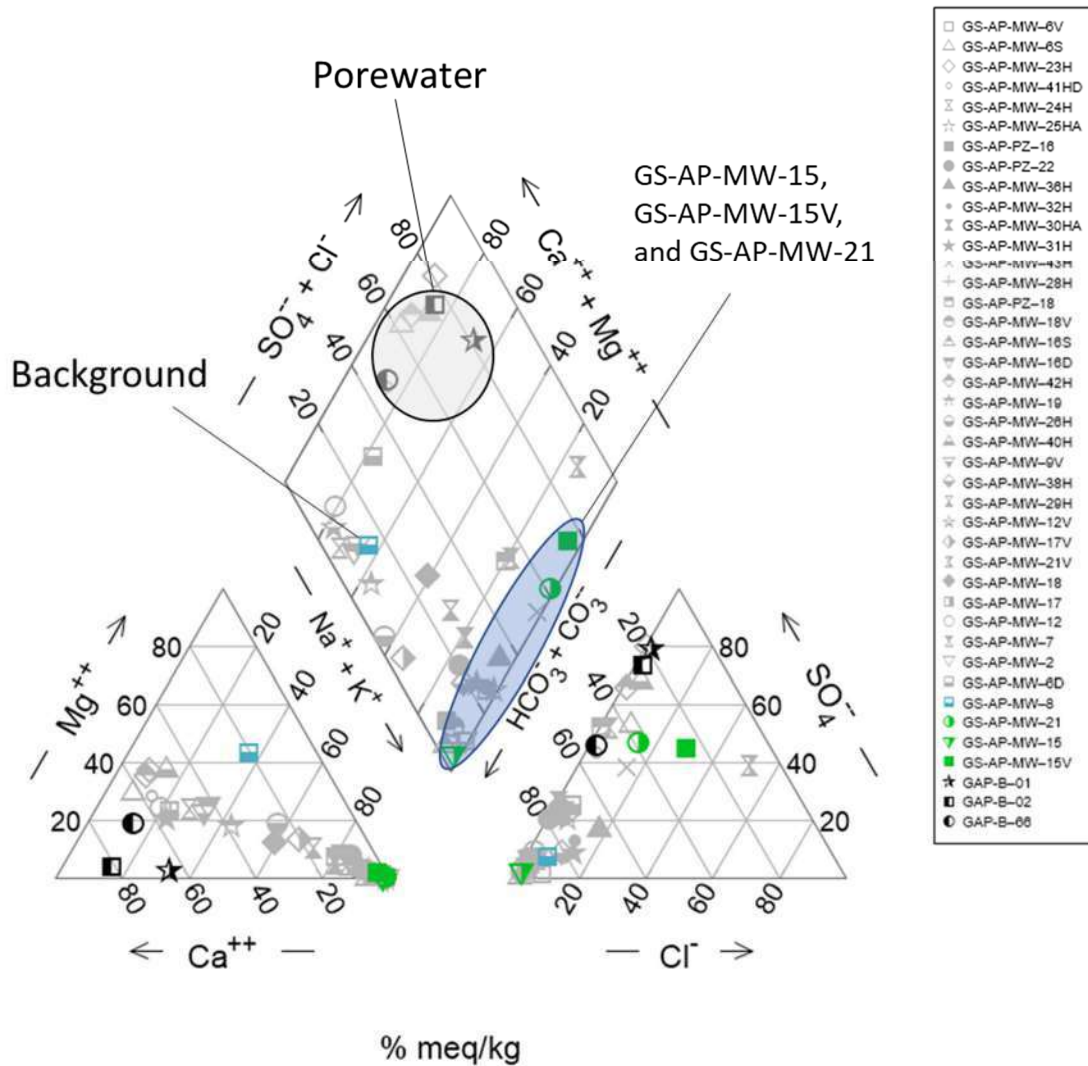


Figure 3: Trilinear (Piper) Diagram of the relative abundances of major ions in groundwater, background water, and Ash Pond porewater at the Plant Gorgas Ash Pond.

4.3 Relative Abundance of Boron to Chloride and Lithium

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.

The relative concentration of boron (i.e., relative to chloride and lithium) in samples GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 was substantially lower than the relative concentration of boron in Ash Pond porewater, as shown in Figure 4. Because chloride, lithium, and boron behave conservatively, the relative abundance of each ion should not change as water migrates away from the Ash Pond, unless another source of water is introduced (Hem 1985). Groundwater samples from GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 have a lower relative abundance of boron compared to Ash Pond porewater and it is, therefore, unlikely that the Ash

Pond is the source of groundwater in these wells. The relative positions of the GS-AP-MW-15, GS-AP-MW-15V, and GS-MW-21 samples on the ternary diagram compared with the background and Ash Pond samples indicate chemical compositions of groundwater in GS-AP-MW-15, GS-AP-MW-15V, and GS-MW-21 are different compared to the Ash Pond water. Therefore, the source of lithium in these wells is from a different source.

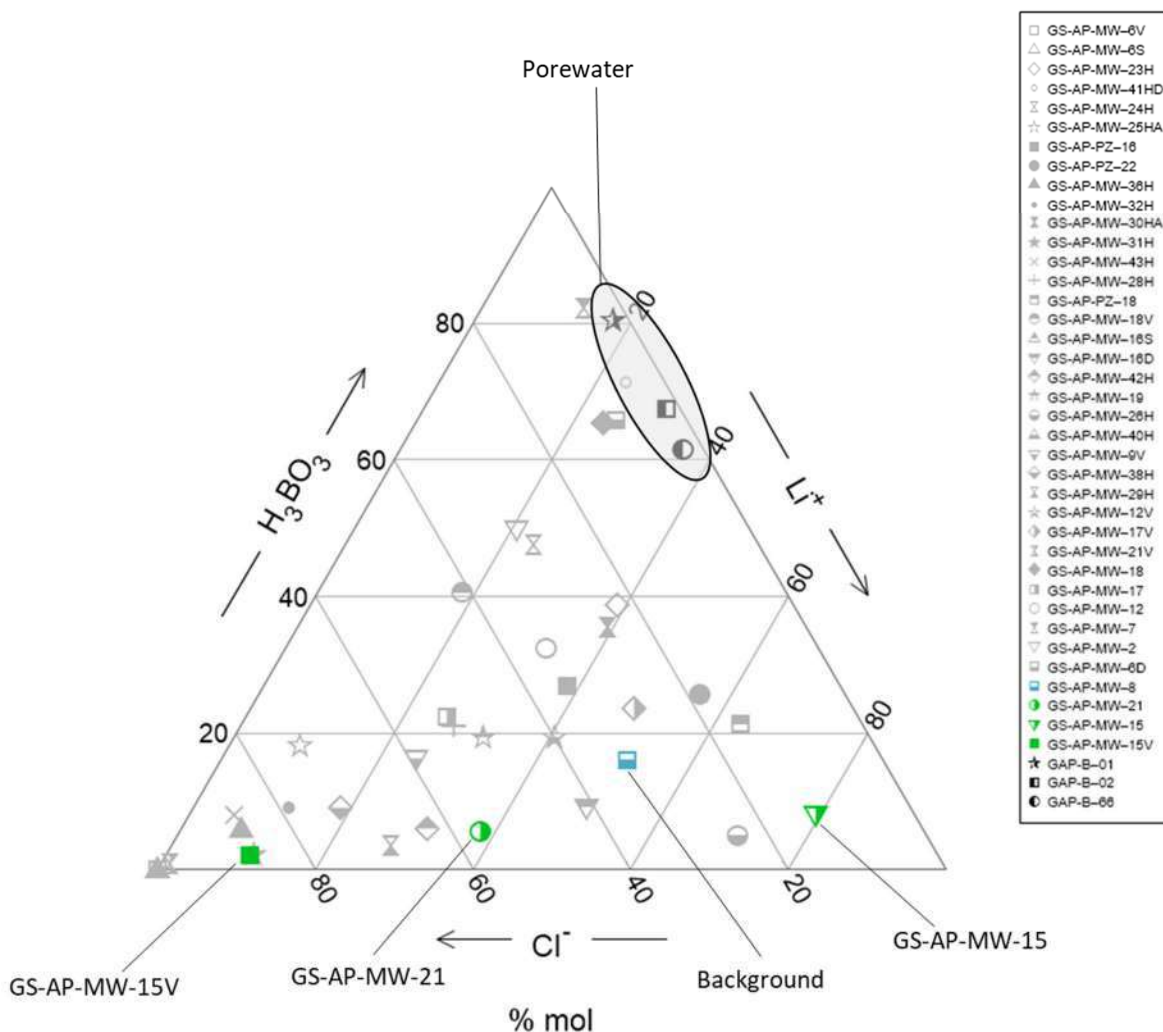


Figure 4: Ternary Diagram of the relative abundance of boron (as boric acid and multiplied by 20), lithium, and chloride in groundwater, background water, and Ash Pond porewater at the Plant Gorgas Ash Pond

4.4 Sodium-Bentonite Cation Exchange

Relatively high sodium concentrations (>200 mg/L) and alkaline pH (> 10) of groundwater at GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-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.

Sodium concentrations in groundwater at GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 were considerably higher than those in background water GS-AP-MW-8 and Ash Pond porewater (Table 2). These concentrations indicate the possible presence of sodium-bentonite in the groundwater wells. Lithium and sodium can substitute for each other through cation exchange (Smith 1999). Thus, dissolution of sodium-bentonite might release lithium from the rock matrix into solution. This is further supported by the high pH observed in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 relative to background (5.9). Improper well construction and/or development as well as interconnected fractures may result in groundwater contamination from both grout intrusion and bentonite. Fracture interconnectivity above and below the bentonite seal can also lead to grout contamination in the screened interval of the well. Grout contamination produces hyperalkaline solutions when mixed with groundwater (Soler and Mäder 2010)

Table 2: Sodium Concentration and pH of Site groundwater and porewater

Monitoring Well	Description	Na (mg/L)	pH (S.U.)
GS-AP-MW-8	Upgradient, Background Well	10.3	5.9
Ash Pond porewater ¹	CCR Impacted Water	28.7	9.2
GS-AP-MW-15	Downgradient Well	255	11.9
GS-AP-MW-15V	Downgradient Well	343	10.1
GS-AP-MW-21	Downgradient Well	247	10.7

Notes:

S.U.= specific units

[1] Ash Pond porewater is represented by an average concentration of sodium and pH at GAP-B-01, GAP-B-02, and GAP-B-66.

4.5 Environmentally Available 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.

Sequential extraction was conducted on 13 aquifer solid samples from wells in the monitoring network (Appendix A). The total metal analysis and SEP results demonstrate that lithium is naturally occurring in the rock material and can occur at elevated concentrations locally.

The concentrations of lithium in samples from borings GS-AP-MW-15 and GS-AP-MW-21 (49 and 173 milligrams per kilogram (mg/kg), respectively) were higher than those reported from samples from background well GS-AP-MW-9 (16.3 mg/kg), and above the average crustal abundance of lithium in the United States of 30 mg/kg (Smith and Huyck 1999). The majority of lithium (>90%) present in GS-AP-MW-15 and GS-AP-MW-21 occurred in the non-environmentally available fraction. As discussed in Tessier et al. (1979), metals in this fraction are not expected to be released rapidly and in appreciable amounts under conditions typically encountered in aquifers, except in the case of acidification or other excursions from typical groundwater conditions. However, the non-

environmentally available fraction can be released gradually over relatively long periods of time due to chemical weathering (e.g., oxidation, dissolution). Thus, the lithium SSLs in groundwater from GS-AP-MW-15 and GS-AP-MW-21 may be attributable to releases from both the environmentally available and non-available fractions of the aquifer material.

5.0 ALTERNATE SOURCE DEMONSTRATION SUMMARY

The evaluation presented in this document demonstrates the statistically significant levels of lithium identified in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 are due to the release of naturally occurring lithium from bedrock, rather than from the CCR unit.

The following lines of evidence demonstrate an alternate source for lithium in Site groundwater:

- Lithium was detected in GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 above the GWPS, but the ratio of lithium to boron differs substantially from that of Ash Pond porewater and the relative abundance of boron in comparison to other conservative ions (i.e., chloride and lithium) in the wells compared to Ash Pond porewater indicate an alternate source of lithium.
- Relative major ion abundances indicate groundwater from GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 has a different composition than Ash Pond porewater and background groundwater from GS-AP-MW-8.
- Relatively high sodium concentrations (>200 mg/L) and alkaline pH of groundwater (> 10) at GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 relative to upgradient water and Ash Pond porewater indicate the potential for sodium-bentonite and grout contamination; sodium-bentonite may allow for cation exchange with lithium.
- Lithium is naturally occurring in the bedrock at Plant Gorgas as identified by chemical analysis and sequential extraction of rock samples. Locally elevated lithium concentrations were measured in rock samples from GS-AP-MW-21.

In addition to the lithium levels above the GWPS at wells GS-AP-15, GS-AP-15V, and GS-AP-18, that co-occurred with instances of high pH, low levels of lithium exist above the GWPS in groundwater at numerous wells across the site, and in most cases, increased lithium is not accompanied with increased boron concentrations that would indicate impacts from AP-1. While grout contamination is potentially a likely source for lithium in these wells, the occurrence of lithium, particularly in the residual fraction of the aquifer solids at significantly higher concentration than crustal abundance indicates a natural source of lithium in the site groundwater. Thus regionally, it is likely that naturally occurring lithium in groundwater is elevated due to coal seams in contact with groundwater, as discussed in Sections 2.2 and 2.3. Soil borings, as described in Section 3.3, also confirmed the presence of coal, visibly present at boring GS-MW-44HO. Occurrences of the bulk of arsenic, cobalt, and molybdenum concentrations in the residual or sulfide fractions further supports the natural occurrence of lithium in the coal seams at the site.

Based on these findings, the CCR unit is not likely the source for the statistical exceedance of lithium at wells GS-AP-15, GS-AP-MW-15V, and GS-AP-21 in the detection monitoring network. This summary serves as an Alternate Source Demonstration prepared for Plant Gorgas.

6.0 CONCLUSION

This ASD has been prepared in response to SSLs of lithium identified in groundwater monitoring wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 at Plant Gorgas Ash Pond. In accordance with § 257.95(g)(3), this ASD addresses SSLs of lithium in groundwater at Site monitoring wells GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-21 but does not pertain to the other SSLs identified at the site. Each of the additional constituents exceeding groundwater protection standard will be addressed through the assessment of corrective measures.

Review of analytical results and statistical evaluations indicates that the exceedances of lithium in groundwater identified at wells GS-AP-15, GS-AP-MW-15V, and GS-AP-21 are not the result of a release from the Ash Pond at Plant Gorgas but are attributed to the presence of naturally occurring lithium in subsurface aquifer materials. Therefore, no further action (i.e., Assessment of Corrective Measures) is warranted for lithium SSLs in groundwater at GS-AP-MW-15, GS-AP-MW-15V, and GS-AP-MW-21 at the Plant Gorgas Ash Pond.

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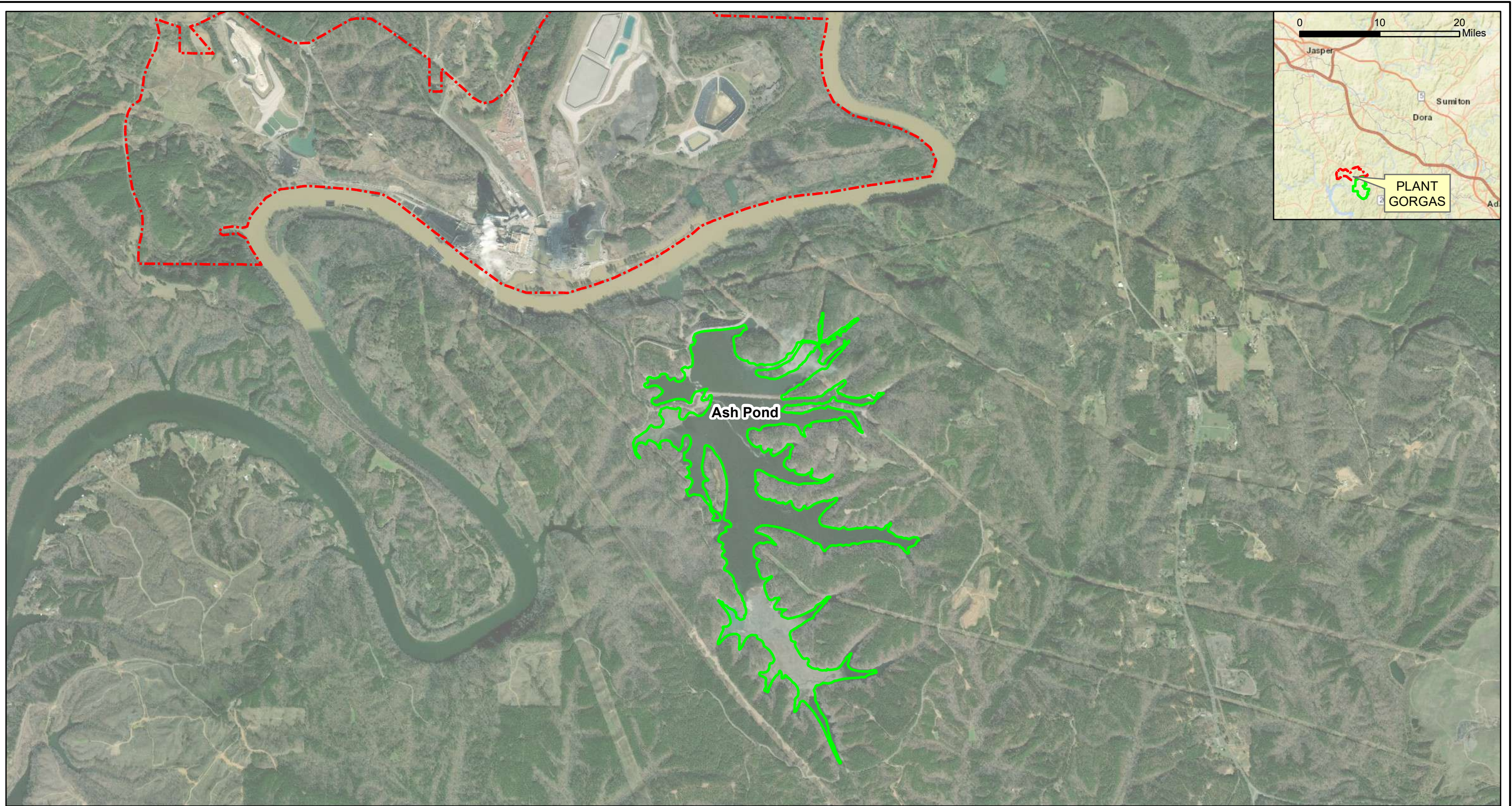
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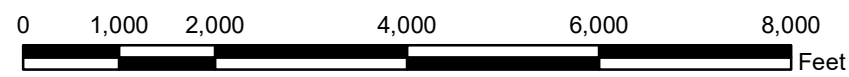
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TABLES & FIGURES



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

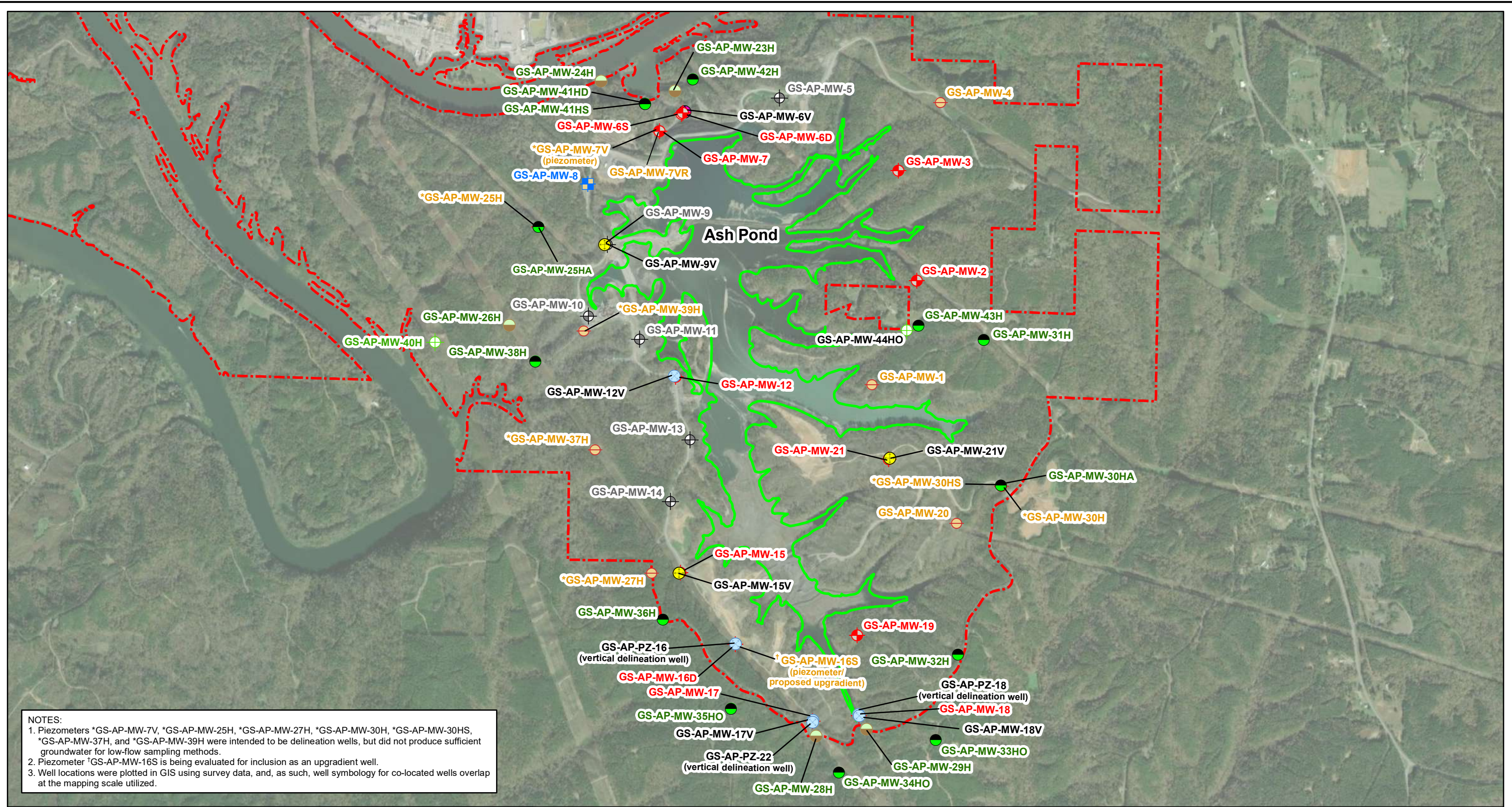


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**SITE LOCATION MAP
 PLANT GORGAS ASH POND**

FIGURE NO
FIGURE 1

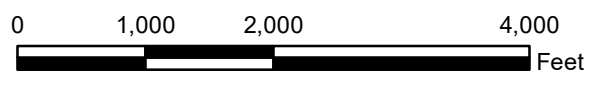




NOTES:
 1. Piezometers *GS-AP-MW-7V, *GS-AP-MW-25H, *GS-AP-MW-27H, *GS-AP-MW-30H, *GS-AP-MW-30HS, *GS-AP-MW-37H, and *GS-AP-MW-39H were intended to be delineation wells, but did not produce sufficient groundwater for low-flow sampling methods.
 2. Piezometer †GS-AP-MW-16S is being evaluated for inclusion as an upgradient well.
 3. 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
- Phase I Vertical Delineation Well
- Phase III Horizontal Delineation Well
- Ash Pond Boundary
- Upgradient Monitoring Well
- Phase II Horizontal Delineation Well
- Phase III Vertical Delineation Well
- Property Boundary (Approximate)
- Phase I Horizontal Delineation Well
- Phase II Vertical Delineation Well
- Piezometer
- Abandoned Well
- 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-9V Vertical Delineation Well ID
- GS-AP-MW-1 Piezometer ID
- GS-AP-MW-9 Abandoned Well ID

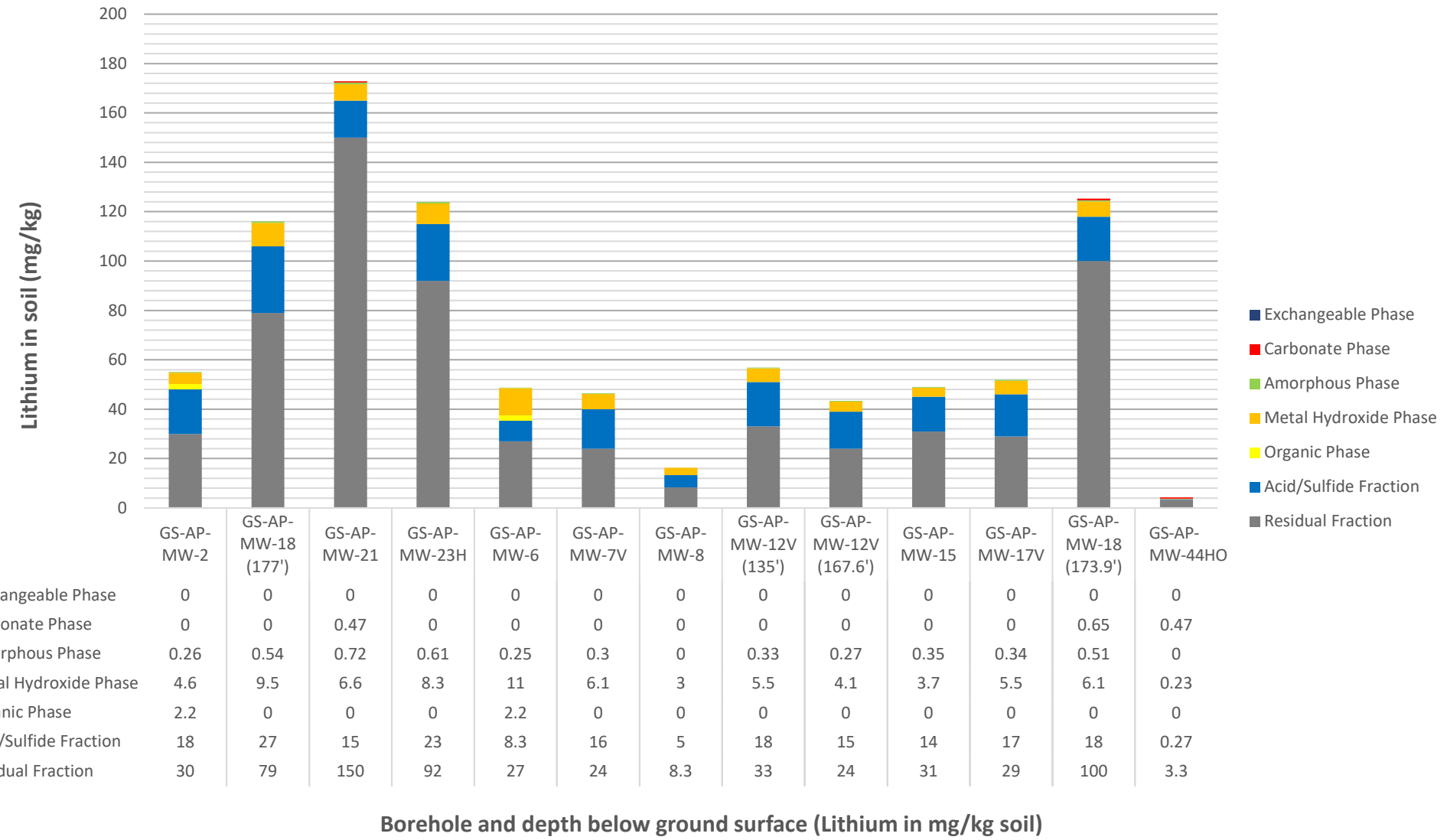


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MONITORING WELL LOCATION MAP PLANT GORGAS ASH POND	
FIGURE NO	FIGURE 2

APPENDIX A

SEQUENTIAL EXTRACTION RESULTS



CLIENT
ALABAMA POWER COMPANY
PLANT GORGAS

PROJECT
2021 TECHNICAL SERVICES

CONSULTANT

TITLE



SEQUENTIAL EXTRACTION RESULTS FOR LITHIUM

PROJECT NO.
20146747

PHASE
001

REV. **APPENDIX A**

APPENDIX A
SEQUENTIAL EXTRACTION AND TOTAL METAL RESULTS FOR AQUIFER SOLIDS
Alabama Power - Plant Gorgas



Analyte	SEP Step	SAMPLE IDENTIFICATION													
		GS-AP-MW-2	GS-AP-MW-6	GS-AP-MW-7V	GS-AP-MW-8	GS-AP-MW-12V (135')	GS-AP-MW-12V (167.6')	GS-AP-MW-15	GS-AP-MW-17V	GS-AP-MW-18 (173.9')	GS-AP-MW-18 (177')	GS-AP-MW-21	GS-AP-MW-23H	GS-MW-44-HO	
		8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	8/25/2020	10/13/2020
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Aluminum	SEP Step 1 - Exchangeable Fraction	< 40 U	< 41 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	14 J	8.3 J	< 53 U	< 41 U
Aluminum	SEP Step 2 - Carbonate Fraction	40	19 J	50	17 J	41	57	43	43	42	57	44	43	43	< 31 U
Aluminum	SEP Step 3 - Non-crystalline Fraction	110	98	130	130	110	150	130	110	130	210	130	160	160	3.6 J
Aluminum	SEP Step 4 - Metal Hydroxide Fraction	1600	4500	2100	1400	1900	1800	1600	1900	1800	2700	1600	2600	2600	63
Aluminum	SEP Step 5 - Organic Fraction	59 J	55 J	89 J	140 J	81 J	82 J	78 J	66 J	100 J	140 J	140 J	140 J	140 J	30 J
Aluminum	SEP Step 6 - Acid/Sulfide Fraction	8900	4900	7500	4000	9200	7600	7200	7600	7600	11000	5800	9600	9600	160
Aluminum	SEP Step 7 - Residual Fraction	51000	25000	43000	40000	48000	60000	59000	51000	59000	77000	71000	84000	84000	2600
Aluminum	SEP Sum of Steps	61000	34000	53000	45000	59000	70000	68000	61000	69000	91000	78000	97000	97000	2900
Aluminum	Total from Chemical Analysis	73000	86000	63000	44000	64000	39000	51000	74000	78000	100000	120000	100000	100000	5100
Arsenic	SEP Step 1 - Exchangeable Fraction	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.8 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Arsenic	SEP Step 2 - Carbonate Fraction	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U	< 2.1 U	< 1.5 U	< 2.0 U	< 2.0 U	< 1.5 U
Arsenic	SEP Step 3 - Non-crystalline Fraction	2.3	1.1	1.0	0.66	0.97	0.50	0.62	0.74	0.18 J	1.4	0.17 J	2.0	2.0	0.14 J
Arsenic	SEP Step 4 - Metal Hydroxide Fraction	0.39 J	< 0.51 U	< 0.50 U	1.6	0.22 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	0.65 J	< 0.50 U	< 0.66 U	< 0.66 U	0.23 J
Arsenic	SEP Step 5 - Organic Fraction	2.7 J	2.5 J	2.2 J	< 7.6 U	< 7.5 U	< 7.5 U	< 7.5 U	< 7.5 U	< 7.6 U	< 11 U	< 7.6 U	< 10 U	< 10 U	< 7.6 U
Arsenic	SEP Step 6 - Acid/Sulfide Fraction	13	5.4	6.3	1.0	6.0	1.2	1.6	5.6	0.62	1.9	0.90	5.3	5.3	1.3
Arsenic	SEP Step 7 - Residual Fraction	4.7	2.0	2.8	1.4	3.1	2.4	1.8	4.1	1.6	2.7	2.2	3.9	3.9	2.1
Arsenic	SEP Sum of Steps	23	11	12	4.7	10	4.1	4.1	10	2.5	6.7	3.3	11	11	3.8
Arsenic	Total from Chemical Analysis	21	22	11	5.8	11	4.7	6.1	13	3.9	7.4	4.0	12	12	3.2
Cobalt	SEP Step 1 - Exchangeable Fraction	0.21 J	< 10 U	0.22 J	0.26 J	0.29 J	0.19 J	< 10 U	< 10 U	< 10 U	3.8 J	< 10 U	0.24 J	< 10 U	< 10 U
Cobalt	SEP Step 2 - Carbonate Fraction	0.96 J	0.40 J	1.1 J	< 7.6 U	1.3 J	0.98 J	0.47 J	0.74 J	< 7.6 U	3.8 J	< 7.6 U	0.89 J	< 7.6 U	< 7.6 U
Cobalt	SEP Step 3 - Non-crystalline Fraction	1.3 J	0.95 J	1.2 J	0.47 J	2.4 J	1.0 J	1.2 J	0.98 J	0.28 J	5.6	0.12 J	1.7 J	1.7 J	< 2.5 U
Cobalt	SEP Step 4 - Metal Hydroxide Fraction	2.1 J	6.0	2.9	3.9	0.90 J	2.3 J	3.4	2.5	1.3 J	9.1	0.72 J	3.4	0.076 J	3.4
Cobalt	SEP Step 5 - Organic Fraction	3.8 J	0.65 J	2.0 J	< 38 U	3.9 J	0.98 J	< 38 U	1.1 J	< 38 U	2.4 J	< 38 U	< 38 U	< 38 U	< 38 U
Cobalt	SEP Step 6 - Acid/Sulfide Fraction	13	3.8	9.5	1.6 J	8.3	8.2	7.8	9.2	4.4	14	2.7	6.9	6.9	0.28 J
Cobalt	SEP Step 7 - Residual Fraction	3.2 J	1.1 J	1.8 J	< 2.5 U	1.7 J	2.4 J	1.7 J	2.9 J	2.6 J	2.8 J	2.8 J	2.8 J	2.8 J	2.3 J
Cobalt	SEP Sum of Steps	25	13	19	3.2	22	16	15	17	8.5	41	5.2	16	16	2.6
Cobalt	Total from Chemical Analysis	20	13	15	3.2	20	14	12	14	7.9	22	4.9 J	14	14	4.3
Iron	SEP Step 1 - Exchangeable Fraction	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 28 U	< 20 U	< 20 U	81	34
Iron	SEP Step 2 - Carbonate Fraction	110	18	210	22	260	240	140	290	41	48	30	81	81	27
Iron	SEP Step 3 - Non-crystalline Fraction	1600	1100	2200	770	6400	3400	3600	3800	260	520	240	1900	1900	28
Iron	SEP Step 4 - Metal Hydroxide Fraction	6300	16000	8700	6500	15000	9800	20000	12000	4200	7000	3600	9000	9000	150
Iron	SEP Step 5 - Organic Fraction	< 76 U	< 76 U	< 75 U	< 76 U	< 75 U	< 76 U	< 75 U	< 75 U	< 76 U	< 110 U	< 76 U	< 100 U	< 100 U	65 J
Iron	SEP Step 6 - Acid/Sulfide Fraction	18000	9900	16000	7000	21000	16000	32000	18000	14000	19000	19000	19000	19000	870
Iron	SEP Step 7 - Residual Fraction	12000	6500	8700	3500	10000	12000	12000	13000	11000	15000	9700	14000	14000	1900
Iron	SEP Sum of Steps	39000	33000	36000	18000	53000	41000	68000	47000	29000	42000	23000	44000	44000	3100
Iron	Total from Chemical Analysis	33000	32000	30000	17000	47000	36000	47000	40000	27000	39000	22000	41000	41000	3300
Lithium	SEP Step 1 - Exchangeable Fraction	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 14 U	< 10 U	< 13 U	< 10 U
Lithium	SEP Step 2 - Carbonate Fraction	< 7.6 U	< 7.6 U	< 7.5 U	< 7.6 U	< 7.5 U	< 7.6 U	< 7.5 U	< 7.5 U	0.65 J	< 11 U	0.47 J	< 10 U	0.47 J	< 7.6 U
Lithium	SEP Step 3 - Non-crystalline Fraction	0.26 J	0.25 J	0.30 J	0.27 J	0.33 J	0.34 J	0.27 J	0.34 J	0.51 J	0.54 J	0.72 J	0.61 J	0.61 J	< 2.5 U
Lithium	SEP Step 4 - Metal Hydroxide Fraction	4.6	11	6.1	3.0	5.5	4.1	3.7	5.5	6.1	9.5	6.6	8.3	8.3	0.23 J
Lithium	SEP Step 5 - Organic Fraction	2.2 J	2.2 J	< 38 U	< 38 U	< 38 U	< 38 U	< 38 U	< 38 U	< 38 U	< 53 U	< 38 U	< 38 U	< 38 U	< 38 U
Lithium	SEP Step 6 - Acid/Sulfide Fraction	18	8.3	16	5.0	14	15	14	17	18	27	15	23	23	0.27 J
Lithium	SEP Step 7 - Residual Fraction	30	27	24	8.3	33	24	31	29	100	79	150	92	92	3.3
Lithium	SEP Sum of Steps	55	48	47	16	57	44	49	52	130	120	170	120	120	4.2
Lithium	Total from Chemical Analysis	48	83	44	16	57	40	45	46	120	110	190	140	140	6.1
Manganese	SEP Step 1 - Exchangeable Fraction	2.1 J	2.2 J	2.0 J	8.2	11	1.8 J	1.1 J	2.2 J	2.0 J	1.4 J	0.54 J	5.0	5.0	0.52 J
Manganese	SEP Step 2 - Carbonate Fraction	11	3.4	26	3.5	39	14	6.4	19	3.0	1.3 J	1.2 J	13	13	< 2.3 U
Manganese	SEP Step 3 - Non-crystalline Fraction	35	28	87	6.4	210	93	75	87	2.0	1.2	0.89	53	53	0.15 J
Manganese	SEP Step 4 - Metal Hydroxide Fraction	98	290	210	19	570	230	390	250	28	36	22	160	160	0.41 J
Manganese	SEP Step 5 - Organic Fraction	< 11 U	23	< 11 U	< 11 U	66	3.9 J	12	3.4 J	< 11 U	< 16 U	< 11 U	< 15 U	< 15 U	< 11 U
Manganese	SEP Step 6 - Acid/Sulfide Fraction	180	150	160	46	200	190	440	200	130	160	98	190	190	0.77
Manganese	SEP Step 7 - Residual Fraction	88	43	54	19	58	97	110	100	70	82	44	93	93	4.0
Manganese	SEP Sum of Steps	410	540	540	100	1100	630	1000	670	230	170	290	510	510	5.8
Manganese	Total from Chemical Analysis	340	380	440	110	980	590	710	570	230	280	170	470	470	7.9
Molybdenum	SEP Step 1 - Exchangeable Fraction	< 8.1 U	< 8.1 U	< 8.0 U	< 8.1 U	< 8.0 U	0.35 J	< 8.0 U	< 8.0 U	< 8.1 U	< 11 U	< 8.1 U	< 11 U	< 11 U	< 8.1 U
Molybdenum	SEP Step 2 - Carbonate Fraction	< 6.0 U	< 6.1 U	< 6.0 U	< 6.0 U	< 6.0 U	< 6.0 U	< 6.0 U	< 6.0 U	< 6.0 U	< 8.5 U	< 6.1 U	< 8.0 U	< 8.0 U	< 6.1 U
Molybdenum	SEP Step 3 - Non-crystalline Fraction	0.40 J	< 2.0 U	0.17 J	0.11 J	0.16 J	0.65 J	0.086 J	0.23 J	< 2.0 U	1.8 J	< 2.0 U	0.19 J	< 2.0 U	< 2.0 U
Molybdenum	SEP Step 4 - Metal Hydroxide Fraction	< 0.18 J	< 2.0 U	< 2.0 U	0.26 J	< 2.0 U	0.62 J	< 2.0 U	0.088 J	< 2.0 U	0.92 J	< 2.0 U	< 2.7 U	< 2.7 U	< 2.0 U
Molybdenum	SEP Step 5 - Organic Fraction	< 30 U	< 30 U	< 30 U	< 30 U	< 30 U	1.8 J	< 30 U	< 30 U	< 30 U	< 43 U	< 30 U	< 40 U	< 40 U	< 31 U
Molybdenum	SEP Step 6 - Acid/Sulfide Fraction	1.2 J	< 2.0 U	0.34 J	< 2.0 U	0.35 J	1.7 J	< 2.0 U	0.44 J	< 2.0 U	0.81 J	< 2.0 U	< 2.7 U	< 2.7 U	< 2.0 U
Molybdenum	SEP Step 7 - Residual Fraction	0.38 J	< 2.0 U	0.10 J	< 2.0 U	0.15 J	0.70 J	< 2.0 U	0.22 J	< 2.0 U	0.24 J	< 2.0 U	< 2.7 U	< 2.7 U	0.94 J
Molybdenum	SEP Sum of Steps	2.2	< 2.0 U	0.62 J	0.37 J	0.67 J	5.9	0.086 J	0.97 J	< 2.0 U	3.7	< 2.0 U	0.19 J	0.19 J	0.94 J
Molybdenum	Total from Chemical Analysis	2.4	< 2.0 U	0.86 J	0.45 J	0.98 J	4.6	0.11 J	1.1 J	0.097 J	2.0 J	< 2.0 U	0.41 J	0.41 J	1.2 J

- Notes:**
1. mg/kg - milligrams per kilogram
 2. SEP - Sequential Extraction Procedure. Each of the 7 steps is described in more detail in the accompanying report.
 3. Laboratory flags and quality control notes can be found in the Laboratory Analytical Report.
 4. J - Result is an estimated value. Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL).
 5. Sum may not equal "Total from Chemical Analysis" due to variability in extraction step efficiency.
 6. U - Result is less than the MDL.

ANALYTICAL REPORT

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

Laboratory Job ID: 140-20212-1

Client Project/Site: Plant Gorgas - Logan Martin Dam

For:

Golder Associates Inc.
18300 NE Union Hill Road
Suite 200
Redmond, Washington 98052-3333

Attn: PJ Nolan



Authorized for release by:
10/1/2020 2:23:21 PM

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

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



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Definitions/Glossary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Qualifiers

Metals

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Job ID: 140-20212-1

Laboratory: Eurofins TestAmerica, Knoxville

Narrative

Job Narrative 140-20212-1

Receipt

The samples were received on 8/31/2020 at 9:15am and arrived in good condition. The temperature of the cooler at receipt was 19.7° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

The following samples were received at the laboratory outside the required temperature criteria: GS-AP-MW-2 (140-20212-1), GS-AP-MW-6 (140-20212-2), GS-AP-MW-7V (140-20212-3), GS-AP-MW-8 (140-20212-4), GS-AP-MW-12V (135') (140-20212-5), GS-AP-MW-12V (167.6') (140-20212-6), GS-AP-MW-15 (140-20212-7), GS-AP-MW-17V (140-20212-8), GS-AP-MW-18 (173.9') (140-20212-9), GS-AP-MW-18 (177') (140-20212-10), GS-AP-MW-21 (140-20212-11) and GS-AP-MW-23H (140-20212-12). The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis.

Metals

7 Step Sequential Extraction Procedure

These soil samples were prepared and analyzed using Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0008, "7 Step Sequential Extraction Procedure". SW-846 Method 6010B as incorporated in Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0007 was used to perform the final instrument analyses.

An aliquot of each sample was sequentially extracted using the steps listed below:

- Step 1 - Exchangeable Fraction: A 5 gram aliquot of sample was extracted with 25 mL of 1M magnesium sulfate (MgSO₄), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 2 - Carbonate Fraction: The sample residue from step 1 was extracted with 25 mL of 1M sodium acetate/acetic acid (NaOAc/HOAc) at pH 5, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 3 - Non-crystalline Materials Fraction: The sample residue from step 2 was extracted with 25 mL of 0.2M ammonium oxalate (pH 3), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 4 - Metal Hydroxide Fraction: The sample residue from step 3 was extracted with 25 mL of 1M hydroxylamine hydrochloride solution in 25% v/v acetic acid, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 5 - Organic-bound Fraction: The sample residue from step 4 was extracted three times with 25 mL of 5% sodium hypochlorite (NaClO) at pH 9.5, centrifuged and filtered. The resulting leachates were combined and 5 mL were digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 6 - Acid/Sulfide Fraction: The sample residue from step 5 was extracted with 25 mL of a 3:1:2 v/v solution of HCl-HNO₃-H₂O, centrifuged and filtered. 5 mL of the resulting leachate was diluted to 50 mL with reagent water and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 7 - Residual Fraction: A 1.0 g aliquot of the sample residue from step 6 was digested using HF, HNO₃, HCl and H₃BO₃. The digestate was analyzed by ICP using method 6010B. Results are reported in mg/kg on a dry weight basis.

In addition, a 1.0 g aliquot of the original sample was digested using HF, HNO₃, HCl and H₃BO₃. The digestate was analyzed by ICP using method 6010B. Total metal results are reported in mg/kg on a dry weight basis.

Results were calculated using the following equation:

$$\text{Result, } \mu\text{g/g or mg/Kg, dry weight} = (C \times V \times V1 \times D) / (W \times S \times V2)$$

Where:

C = Concentration from instrument readout, $\mu\text{g/mL}$

Case Narrative

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Job ID: 140-20212-1 (Continued)

Laboratory: Eurofins TestAmerica, Knoxville (Continued)

V = Final volume of digestate, mL
D = Instrument dilution factor
V1 = Total volume of leachate, mL
V2 = Volume of leachate digested, mL
W = Wet weight of sample, g
S = Percent solids/100

A method blank, laboratory control sample and laboratory control sample duplicate were prepared and analyzed with each SEP step in order to provide information about both the presence of elements of interest in the extraction solutions, and the recovery of elements of interest from the extraction solutions. Results outside of laboratory QC limits do not reflect out of control performance, but rather the effect of the extraction solution upon the analyte.

A laboratory sample duplicate was prepared and analyzed with each batch of samples in order to provide information regarding the reproducibility of the procedure.

SEP Report Notes:

The final report lists the results for each step, the result for the total digestion of the sample, and a sum of the results of steps 1 through 7 by element.

Magnesium was not reported for step 1 because the extraction solution for this step (magnesium sulfate) contains high levels of magnesium. Sodium was not reported for steps 2 and 5 since the extraction solutions for these steps contain high levels of sodium. The sum of steps 1 through 7 is much higher than the total result for sodium and magnesium due to the magnesium and sodium introduced by the extraction solutions.

The digestates for steps 1, 2 and 5 were analyzed at a dilution due to instrument problems caused by the high solids content of the digestates. The reporting limits were adjusted accordingly.

Method 6010B SEP: The sample duplicate (DUP) precision for preparation batch 140-42839 and 140-42879 and analytical batch 140-42992 was outside control limits. Sample non-homogeneity is suspected.

Method 6010B SEP: The serial dilution performed for the following sample associated with batch 140-43029 was outside control limits: (140-20212-A-6-W SD ^5)

Method 6010B SEP: The sample duplicate (DUP) precision for preparation batch 140-42963 and analytical batch 140-43129 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 6010B SEP: The serial dilution performed for the following sample associated with batch 140-43129 was outside control limits: (140-20212-A-6-Y SD ^5)

Method 6010B SEP: The following samples were diluted due to the presence of titanium which interferes with Cobalt: GS-AP-MW-2 (140-20212-1), GS-AP-MW-6 (140-20212-2), GS-AP-MW-7V (140-20212-3), GS-AP-MW-12V (135') (140-20212-5), GS-AP-MW-12V (167.6') (140-20212-6), GS-AP-MW-15 (140-20212-7), GS-AP-MW-17V (140-20212-8), GS-AP-MW-18 (173.9') (140-20212-9), GS-AP-MW-18 (177') (140-20212-10), GS-AP-MW-21 (140-20212-11), GS-AP-MW-23H (140-20212-12) and (140-20212-A-6-Z DU). Elevated reporting limits (RLs) are provided.

Method 6010B SEP: The following samples were diluted to bring the concentration of target analyte, aluminum, within the calibration range: GS-AP-MW-2 (140-20212-1), GS-AP-MW-6 (140-20212-2), GS-AP-MW-7V (140-20212-3), GS-AP-MW-8 (140-20212-4), GS-AP-MW-12V (135') (140-20212-5), GS-AP-MW-12V (167.6') (140-20212-6), GS-AP-MW-15 (140-20212-7), GS-AP-MW-17V (140-20212-8), GS-AP-MW-18 (173.9') (140-20212-9), GS-AP-MW-18 (177') (140-20212-10), GS-AP-MW-21 (140-20212-11), GS-AP-MW-23H (140-20212-12) and (140-20212-A-6-Z DU). Elevated reporting limits (RLs) are provided.

Case Narrative

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Job ID: 140-20212-1 (Continued)

Laboratory: Eurofins TestAmerica, Knoxville (Continued)

Method 6010B: The sample duplicate (DUP) precision for preparation batch 140-42659 and analytical batch 140-43169 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 6010B: The serial dilution performed for the following samples associated with batch 140-43169 was outside control limits: (140-20212-A-6-A SD ^10), (140-20212-A-6-A SD ^5) and (140-20212-A-6-A SD ^50)

Method 6010B: The following samples were diluted due to the presence of iron which interferes with Arsenic: GS-AP-MW-2 (140-20212-1), GS-AP-MW-6 (140-20212-2), GS-AP-MW-7V (140-20212-3), GS-AP-MW-12V (135') (140-20212-5), GS-AP-MW-12V (167.6') (140-20212-6), GS-AP-MW-15 (140-20212-7), GS-AP-MW-17V (140-20212-8), GS-AP-MW-18 (173.9') (140-20212-9), GS-AP-MW-18 (177') (140-20212-10), GS-AP-MW-23H (140-20212-12) and (140-20212-A-6-B DU). Elevated reporting limits (RLs) are provided.

Method 6010B: The following samples were diluted due to the presence of titanium which interferes with Cobalt: GS-AP-MW-2 (140-20212-1), GS-AP-MW-6 (140-20212-2), GS-AP-MW-7V (140-20212-3), GS-AP-MW-12V (135') (140-20212-5), GS-AP-MW-12V (167.6') (140-20212-6), GS-AP-MW-15 (140-20212-7), GS-AP-MW-17V (140-20212-8), GS-AP-MW-18 (173.9') (140-20212-9), GS-AP-MW-18 (177') (140-20212-10), GS-AP-MW-21 (140-20212-11), GS-AP-MW-23H (140-20212-12) and (140-20212-A-6-B DU). Elevated reporting limits (RLs) are provided.

Method 6010B: The following samples were diluted to bring the concentration of target analytes, aluminum and iron, within the calibration range: GS-AP-MW-2 (140-20212-1), GS-AP-MW-6 (140-20212-2), GS-AP-MW-7V (140-20212-3), GS-AP-MW-8 (140-20212-4), GS-AP-MW-12V (135') (140-20212-5), GS-AP-MW-12V (167.6') (140-20212-6), GS-AP-MW-15 (140-20212-7), GS-AP-MW-17V (140-20212-8), GS-AP-MW-18 (173.9') (140-20212-9), GS-AP-MW-18 (177') (140-20212-10), GS-AP-MW-21 (140-20212-11), GS-AP-MW-23H (140-20212-12) and (140-20212-A-6-B DU). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

% Moisture: The samples were analyzed for percent moisture using SOP number KNOX-WC-0012 (based on Modified MCAWW 160.3 and SM2540B and on the percent moisture determinations described in methods 3540C and 3550B).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-20212-1	GS-AP-MW-2	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-2	GS-AP-MW-6	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-3	GS-AP-MW-7V	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-4	GS-AP-MW-8	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-5	GS-AP-MW-12V (135')	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-6	GS-AP-MW-12V (167.6')	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-7	GS-AP-MW-15	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-8	GS-AP-MW-17V	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-9	GS-AP-MW-18 (173.9')	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-10	GS-AP-MW-18 (177')	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-11	GS-AP-MW-21	Solid	08/25/20 00:00	08/31/20 09:15	
140-20212-12	GS-AP-MW-23H	Solid	08/25/20 00:00	08/31/20 09:15	

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-2

Lab Sample ID: 140-20212-1

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.2

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 13:45	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 13:45	4
Cobalt	0.21	J	10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 13:45	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 13:45	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 13:45	4
Manganese	2.1	J	3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 13:45	4
Molybdenum	ND		8.1	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 13:45	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	40	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:35	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 15:35	3
Cobalt	0.96	J	7.6	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 15:35	3
Iron	110	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:35	3
Lithium	ND		7.6	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 15:35	3
Manganese	11		2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 15:35	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 15:35	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	110		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 11:53	1
Arsenic	2.3		0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 11:53	1
Cobalt	1.3	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 11:53	1
Iron	1600		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 11:53	1
Lithium	0.26	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 11:53	1
Manganese	35	B	0.76	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 11:53	1
Molybdenum	0.40	J	2.0	0.083	mg/Kg	☼	09/17/20 08:00	09/22/20 11:53	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1600		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 13:43	1
Arsenic	0.39	J	0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 13:43	1
Cobalt	2.1	J	2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 13:43	1
Iron	6300		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 13:43	1
Lithium	4.6		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 13:43	1
Manganese	98		0.76	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 13:43	1
Molybdenum	0.18	J	2.0	0.083	mg/Kg	☼	09/18/20 08:00	09/22/20 13:43	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	59	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 11:25	5
Arsenic	2.7	J *	7.6	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:25	5
Cobalt	3.8	J *	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 11:25	5
Iron	ND	**1	76	44	mg/Kg	☼	09/21/20 08:00	09/23/20 11:25	5
Lithium	2.2	J B	38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 11:25	5
Manganese	ND	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:25	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 11:25	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8900		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 13:16	1

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Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-2

Lab Sample ID: 140-20212-1

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.2

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:16	1
Cobalt	13		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 13:16	1
Iron	18000		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 13:16	1
Lithium	18		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:16	1
Manganese	180		0.76	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 13:16	1
Molybdenum	1.2	J	2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 13:16	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	51000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 11:21	10
Arsenic	4.7	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 12:55	1
Cobalt	3.2	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 14:34	2
Iron	12000		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 12:55	1
Lithium	30		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 12:55	1
Manganese	88		0.76	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 12:55	1
Molybdenum	0.38	J	2.0	0.083	mg/Kg	☼	09/22/20 08:00	09/28/20 12:55	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	61000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	23		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	25		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	39000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	55		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	410		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	2.2		2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	73000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 12:40	10
Arsenic	21	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 15:56	2
Cobalt	20		5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 15:56	2
Iron	33000		10	8.3	mg/Kg	☼	09/14/20 08:00	09/29/20 15:56	2
Lithium	48		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:13	1
Manganese	340		0.76	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:13	1
Molybdenum	2.4		2.0	0.083	mg/Kg	☼	09/14/20 08:00	09/29/20 14:13	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-6

Lab Sample ID: 140-20212-2

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 98.6

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		41	6.5	mg/Kg	☼	09/15/20 08:00	09/21/20 13:49	4
Arsenic	ND		2.0	0.53	mg/Kg	☼	09/15/20 08:00	09/21/20 13:49	4
Cobalt	ND		10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 13:49	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 13:49	4
Lithium	ND		10	0.61	mg/Kg	☼	09/15/20 08:00	09/21/20 13:49	4
Manganese	2.2	J	3.0	0.13	mg/Kg	☼	09/15/20 08:00	09/21/20 13:49	4
Molybdenum	ND		8.1	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 13:49	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	19	J**1	30	4.9	mg/Kg	☼	09/16/20 08:00	09/21/20 15:39	3
Arsenic	ND	*	1.5	0.40	mg/Kg	☼	09/16/20 08:00	09/21/20 15:39	3
Cobalt	0.40	J	7.6	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 15:39	3
Iron	18	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:39	3
Lithium	ND		7.6	0.46	mg/Kg	☼	09/16/20 08:00	09/21/20 15:39	3
Manganese	3.4		2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 15:39	3
Molybdenum	ND		6.1	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 15:39	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	98		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 11:58	1
Arsenic	1.1		0.51	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 11:58	1
Cobalt	0.95	J	2.5	0.046	mg/Kg	☼	09/17/20 08:00	09/22/20 11:58	1
Iron	1100		5.1	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 11:58	1
Lithium	0.25	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 11:58	1
Manganese	28	B	0.76	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 11:58	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/17/20 08:00	09/22/20 11:58	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4500		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 13:47	1
Arsenic	ND		0.51	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 13:47	1
Cobalt	6.0		2.5	0.054	mg/Kg	☼	09/18/20 08:00	09/22/20 13:47	1
Iron	16000		5.1	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 13:47	1
Lithium	11		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 13:47	1
Manganese	290		0.76	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 13:47	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/18/20 08:00	09/22/20 13:47	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	55	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 11:30	5
Arsenic	2.5	J *	7.6	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:30	5
Cobalt	0.65	J *	38	0.61	mg/Kg	☼	09/21/20 08:00	09/23/20 11:30	5
Iron	ND	**1	76	45	mg/Kg	☼	09/21/20 08:00	09/23/20 11:30	5
Lithium	2.2	J B	38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 11:30	5
Manganese	23	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:30	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 11:30	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4900		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 13:21	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-6

Lab Sample ID: 140-20212-2

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 98.6

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.4		0.51	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:21	1
Cobalt	3.8		2.5	0.047	mg/Kg	☼	09/21/20 08:00	09/23/20 13:21	1
Iron	9900		5.1	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 13:21	1
Lithium	8.3		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:21	1
Manganese	150		0.76	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 13:21	1
Molybdenum	ND		2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 13:21	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	25000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 11:26	10
Arsenic	2.0	B	0.51	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:00	1
Cobalt	1.1	J	5.1	0.053	mg/Kg	☼	09/22/20 08:00	09/28/20 14:38	2
Iron	6500		5.1	4.2	mg/Kg	☼	09/22/20 08:00	09/28/20 13:00	1
Lithium	27		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:00	1
Manganese	43		0.76	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:00	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/22/20 08:00	09/28/20 13:00	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	34000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	11		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	13		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	33000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	48		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	540		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	ND		2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	86000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 12:45	10
Arsenic	22	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 16:01	2
Cobalt	13		5.1	0.053	mg/Kg	☼	09/14/20 08:00	09/29/20 16:01	2
Iron	32000		10	8.3	mg/Kg	☼	09/14/20 08:00	09/29/20 16:01	2
Lithium	83		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:19	1
Manganese	380		0.76	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:19	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/14/20 08:00	09/29/20 14:19	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-7V

Lab Sample ID: 140-20212-3

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 13:54	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 13:54	4
Cobalt	0.22	J	10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 13:54	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 13:54	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 13:54	4
Manganese	2.0	J	3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 13:54	4
Molybdenum	ND		8.0	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 13:54	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:44	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 15:44	3
Cobalt	1.1	J	7.5	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 15:44	3
Iron	210	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:44	3
Lithium	ND		7.5	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 15:44	3
Manganese	26		2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 15:44	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 15:44	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	130		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:03	1
Arsenic	1.0		0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 12:03	1
Cobalt	1.2	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 12:03	1
Iron	2200		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 12:03	1
Lithium	0.30	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 12:03	1
Manganese	87	B	0.75	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 12:03	1
Molybdenum	0.17	J	2.0	0.082	mg/Kg	☼	09/17/20 08:00	09/22/20 12:03	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2100		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 13:52	1
Arsenic	ND		0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 13:52	1
Cobalt	2.9		2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 13:52	1
Iron	8700		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 13:52	1
Lithium	6.1		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 13:52	1
Manganese	210		0.75	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 13:52	1
Molybdenum	ND		2.0	0.082	mg/Kg	☼	09/18/20 08:00	09/22/20 13:52	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	89	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 11:34	5
Arsenic	2.2	J *	7.5	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:34	5
Cobalt	2.0	J *	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 11:34	5
Iron	ND	**1	75	44	mg/Kg	☼	09/21/20 08:00	09/23/20 11:34	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 11:34	5
Manganese	ND	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:34	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 11:34	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7500		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 13:26	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-7V

Lab Sample ID: 140-20212-3

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.3		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:26	1
Cobalt	9.5		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 13:26	1
Iron	16000		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 13:26	1
Lithium	16		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:26	1
Manganese	160		0.75	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 13:26	1
Molybdenum	0.34	J	2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 13:26	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	43000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 11:31	10
Arsenic	2.8	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:05	1
Cobalt	1.8	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 14:43	2
Iron	8700		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 13:05	1
Lithium	24		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:05	1
Manganese	54		0.75	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:05	1
Molybdenum	0.10	J	2.0	0.082	mg/Kg	☼	09/22/20 08:00	09/28/20 13:05	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	53000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	12		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	19		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	36000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	47		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	540		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	0.62	J	2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	63000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 12:49	10
Arsenic	11	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 16:06	2
Cobalt	15		5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 16:06	2
Iron	30000		10	8.2	mg/Kg	☼	09/14/20 08:00	09/29/20 16:06	2
Lithium	44		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:24	1
Manganese	440		0.75	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:24	1
Molybdenum	0.86	J	2.0	0.082	mg/Kg	☼	09/14/20 08:00	09/29/20 14:24	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-8

Lab Sample ID: 140-20212-4

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 13:59	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 13:59	4
Cobalt	0.26	J	10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 13:59	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 13:59	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 13:59	4
Manganese	8.2		3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 13:59	4
Molybdenum	ND		8.1	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 13:59	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17	J**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:49	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 15:49	3
Cobalt	ND		7.6	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 15:49	3
Iron	22	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:49	3
Lithium	ND		7.6	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 15:49	3
Manganese	3.5		2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 15:49	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 15:49	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	130		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:08	1
Arsenic	0.66		0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 12:08	1
Cobalt	0.47	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 12:08	1
Iron	770		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 12:08	1
Lithium	ND		2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 12:08	1
Manganese	6.4	B	0.76	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 12:08	1
Molybdenum	0.11	J	2.0	0.083	mg/Kg	☼	09/17/20 08:00	09/22/20 12:08	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1400		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 13:57	1
Arsenic	1.6		0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 13:57	1
Cobalt	0.90	J	2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 13:57	1
Iron	6500		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 13:57	1
Lithium	3.0		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 13:57	1
Manganese	19		0.76	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 13:57	1
Molybdenum	0.26	J	2.0	0.083	mg/Kg	☼	09/18/20 08:00	09/22/20 13:57	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 11:39	5
Arsenic	ND	*	7.6	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:39	5
Cobalt	ND	*	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 11:39	5
Iron	ND	**1	76	44	mg/Kg	☼	09/21/20 08:00	09/23/20 11:39	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 11:39	5
Manganese	ND	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:39	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 11:39	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4000		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 13:31	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-8

Lab Sample ID: 140-20212-4

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:31	1
Cobalt	1.6	J	2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 13:31	1
Iron	7000		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 13:31	1
Lithium	5.0		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:31	1
Manganese	46		0.76	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 13:31	1
Molybdenum	ND		2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 13:31	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	40000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 11:35	10
Arsenic	1.4	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:10	1
Cobalt	ND		2.5	0.026	mg/Kg	☼	09/22/20 08:00	09/28/20 13:10	1
Iron	3500		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 13:10	1
Lithium	8.3		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:10	1
Manganese	19		0.76	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:10	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/22/20 08:00	09/28/20 13:10	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	45000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	4.7		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	3.2		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	18000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	16		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	100		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	0.37	J	2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	44000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 12:54	10
Arsenic	5.8	B	0.50	0.13	mg/Kg	☼	09/14/20 08:00	09/29/20 14:29	1
Cobalt	3.2		2.5	0.026	mg/Kg	☼	09/14/20 08:00	09/29/20 14:29	1
Iron	17000		5.0	4.1	mg/Kg	☼	09/14/20 08:00	09/29/20 14:29	1
Lithium	16		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:29	1
Manganese	110		0.76	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:29	1
Molybdenum	0.45	J	2.0	0.083	mg/Kg	☼	09/14/20 08:00	09/29/20 14:29	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (135')

Lab Sample ID: 140-20212-5

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 14:04	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 14:04	4
Cobalt	0.29	J	10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 14:04	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:04	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 14:04	4
Manganese	11		3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:04	4
Molybdenum	ND		8.0	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 14:04	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	41	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:54	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 15:54	3
Cobalt	1.3	J	7.5	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 15:54	3
Iron	260	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:54	3
Lithium	ND		7.5	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 15:54	3
Manganese	39		2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 15:54	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 15:54	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	110		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:13	1
Arsenic	0.97		0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 12:13	1
Cobalt	2.4	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 12:13	1
Iron	6400		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 12:13	1
Lithium	0.33	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 12:13	1
Manganese	210	B	0.75	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 12:13	1
Molybdenum	0.16	J	2.0	0.082	mg/Kg	☼	09/17/20 08:00	09/22/20 12:13	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1900		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 14:02	1
Arsenic	0.22	J	0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 14:02	1
Cobalt	3.9		2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 14:02	1
Iron	15000		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 14:02	1
Lithium	5.5		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 14:02	1
Manganese	570		0.75	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 14:02	1
Molybdenum	ND		2.0	0.082	mg/Kg	☼	09/18/20 08:00	09/22/20 14:02	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	81	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 11:44	5
Arsenic	ND	*	7.5	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:44	5
Cobalt	3.9	J *	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 11:44	5
Iron	ND	**1	75	44	mg/Kg	☼	09/21/20 08:00	09/23/20 11:44	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 11:44	5
Manganese	66	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:44	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 11:44	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9200		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 13:36	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (135')

Lab Sample ID: 140-20212-5

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.0		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:36	1
Cobalt	8.3		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 13:36	1
Iron	21000		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 13:36	1
Lithium	18		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:36	1
Manganese	200		0.75	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 13:36	1
Molybdenum	0.35	J	2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 13:36	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	48000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 11:40	10
Arsenic	3.1	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:15	1
Cobalt	1.7	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 14:53	2
Iron	10000		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 13:15	1
Lithium	33		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:15	1
Manganese	58		0.75	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:15	1
Molybdenum	0.15	J	2.0	0.082	mg/Kg	☼	09/22/20 08:00	09/28/20 13:15	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	59000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	10		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	22		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	53000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	57		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	1100		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	0.67	J	2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	64000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 12:58	10
Arsenic	11	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 16:11	2
Cobalt	20		5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 16:11	2
Iron	47000		10	8.2	mg/Kg	☼	09/14/20 08:00	09/29/20 16:11	2
Lithium	57		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:35	1
Manganese	980		0.75	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:35	1
Molybdenum	0.98	J	2.0	0.082	mg/Kg	☼	09/14/20 08:00	09/29/20 14:35	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (167.6')

Lab Sample ID: 140-20212-6

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 14:08	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 14:08	4
Cobalt	0.19	J	10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 14:08	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:08	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 14:08	4
Manganese	1.8	J	3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:08	4
Molybdenum	0.35	J	8.1	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 14:08	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	57	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:59	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 15:59	3
Cobalt	0.98	J	7.6	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 15:59	3
Iron	240	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 15:59	3
Lithium	ND		7.6	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 15:59	3
Manganese	14		2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 15:59	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 15:59	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	150		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:17	1
Arsenic	0.50		0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 12:17	1
Cobalt	1.0	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 12:17	1
Iron	3400		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 12:17	1
Lithium	0.27	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 12:17	1
Manganese	93	B	0.76	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 12:17	1
Molybdenum	0.65	J	2.0	0.083	mg/Kg	☼	09/17/20 08:00	09/22/20 12:17	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1800		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 14:07	1
Arsenic	ND		0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 14:07	1
Cobalt	2.3	J	2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 14:07	1
Iron	9800		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 14:07	1
Lithium	4.1		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 14:07	1
Manganese	230		0.76	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 14:07	1
Molybdenum	0.62	J	2.0	0.083	mg/Kg	☼	09/18/20 08:00	09/22/20 14:07	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	82	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 11:49	5
Arsenic	ND	*	7.6	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:49	5
Cobalt	0.98	J *	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 11:49	5
Iron	ND	**1	76	44	mg/Kg	☼	09/21/20 08:00	09/23/20 11:49	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 11:49	5
Manganese	3.9	J *	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 11:49	5
Molybdenum	1.8	J *	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 11:49	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7600		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 13:41	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (167.6')

Lab Sample ID: 140-20212-6

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:41	1
Cobalt	8.2		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 13:41	1
Iron	16000		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 13:41	1
Lithium	15		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 13:41	1
Manganese	190		0.76	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 13:41	1
Molybdenum	1.7	J	2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 13:41	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	60000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 11:45	10
Arsenic	2.4	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:20	1
Cobalt	2.4	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 14:58	2
Iron	12000		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 13:20	1
Lithium	24		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:20	1
Manganese	97		0.76	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:20	1
Molybdenum	0.70	J	2.0	0.083	mg/Kg	☼	09/22/20 08:00	09/28/20 13:20	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	70000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	4.1		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	16		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	41000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	44		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	630		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	5.9		2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	39000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 13:03	10
Arsenic	4.7	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 16:16	2
Cobalt	14		5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 16:16	2
Iron	36000		10	8.3	mg/Kg	☼	09/14/20 08:00	09/29/20 16:16	2
Lithium	40		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:40	1
Manganese	590		0.76	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:40	1
Molybdenum	4.6		2.0	0.083	mg/Kg	☼	09/14/20 08:00	09/29/20 14:40	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-15

Lab Sample ID: 140-20212-7

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.5

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 14:32	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 14:32	4
Cobalt	ND		10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 14:32	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:32	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 14:32	4
Manganese	1.1	J	3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:32	4
Molybdenum	ND		8.0	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 14:32	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	43	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 16:23	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 16:23	3
Cobalt	0.47	J	7.5	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 16:23	3
Iron	140	**1	15	8.7	mg/Kg	☼	09/16/20 08:00	09/21/20 16:23	3
Lithium	ND		7.5	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 16:23	3
Manganese	6.4		2.3	0.84	mg/Kg	☼	09/16/20 08:00	09/21/20 16:23	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 16:23	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	130		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:41	1
Arsenic	0.62		0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 12:41	1
Cobalt	1.2	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 12:41	1
Iron	3600		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 12:41	1
Lithium	0.35	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 12:41	1
Manganese	75	B	0.75	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 12:41	1
Molybdenum	0.086	J	2.0	0.082	mg/Kg	☼	09/17/20 08:00	09/22/20 12:41	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1600		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 14:30	1
Arsenic	ND		0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 14:30	1
Cobalt	3.4		2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 14:30	1
Iron	20000		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 14:30	1
Lithium	3.7		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 14:30	1
Manganese	390		0.75	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 14:30	1
Molybdenum	ND		2.0	0.082	mg/Kg	☼	09/18/20 08:00	09/22/20 14:30	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	78	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 12:13	5
Arsenic	ND	*	7.5	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:13	5
Cobalt	ND	*	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 12:13	5
Iron	ND	**1	75	44	mg/Kg	☼	09/21/20 08:00	09/23/20 12:13	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 12:13	5
Manganese	12	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:13	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 12:13	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7200		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 14:05	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-15

Lab Sample ID: 140-20212-7

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.5

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6		1.0	0.30	mg/Kg	☼	09/21/20 08:00	09/23/20 14:52	2
Cobalt	7.8		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 14:05	1
Iron	32000		10	5.8	mg/Kg	☼	09/21/20 08:00	09/23/20 14:52	2
Lithium	14		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 14:05	1
Manganese	440		0.75	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 14:05	1
Molybdenum	ND		2.0	0.099	mg/Kg	☼	09/21/20 08:00	09/23/20 14:05	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	59000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 12:04	10
Arsenic	1.8	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:30	1
Cobalt	1.7	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 15:22	2
Iron	12000		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 13:30	1
Lithium	31		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:30	1
Manganese	110		0.75	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:30	1
Molybdenum	ND		2.0	0.082	mg/Kg	☼	09/22/20 08:00	09/28/20 13:30	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	68000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	4.1		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	15		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	68000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	49		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	1000		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	0.086	J	2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	51000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 13:22	10
Arsenic	6.1	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 16:26	2
Cobalt	12		5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 16:26	2
Iron	47000		10	8.2	mg/Kg	☼	09/14/20 08:00	09/29/20 16:26	2
Lithium	45		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:50	1
Manganese	710		0.75	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:50	1
Molybdenum	0.11	J	2.0	0.082	mg/Kg	☼	09/14/20 08:00	09/29/20 14:50	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-17V

Lab Sample ID: 140-20212-8

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 14:37	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 14:37	4
Cobalt	ND		10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 14:37	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:37	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 14:37	4
Manganese	2.2	J	3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:37	4
Molybdenum	ND		8.0	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 14:37	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	43	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 16:28	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 16:28	3
Cobalt	0.74	J	7.5	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 16:28	3
Iron	290	**1	15	8.7	mg/Kg	☼	09/16/20 08:00	09/21/20 16:28	3
Lithium	ND		7.5	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 16:28	3
Manganese	19		2.3	0.84	mg/Kg	☼	09/16/20 08:00	09/21/20 16:28	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 16:28	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	110		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:46	1
Arsenic	0.74		0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 12:46	1
Cobalt	0.98	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 12:46	1
Iron	3800		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 12:46	1
Lithium	0.34	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 12:46	1
Manganese	87	B	0.75	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 12:46	1
Molybdenum	0.23	J	2.0	0.082	mg/Kg	☼	09/17/20 08:00	09/22/20 12:46	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1900		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 14:35	1
Arsenic	ND		0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 14:35	1
Cobalt	2.5		2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 14:35	1
Iron	12000		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 14:35	1
Lithium	5.5		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 14:35	1
Manganese	250		0.75	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 14:35	1
Molybdenum	0.088	J	2.0	0.082	mg/Kg	☼	09/18/20 08:00	09/22/20 14:35	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	66	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 12:18	5
Arsenic	ND	*	7.5	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:18	5
Cobalt	1.1	J *	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 12:18	5
Iron	ND	**1	75	44	mg/Kg	☼	09/21/20 08:00	09/23/20 12:18	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 12:18	5
Manganese	3.4	J *	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:18	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 12:18	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7600		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 14:10	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-17V

Lab Sample ID: 140-20212-8

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.6		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 14:10	1
Cobalt	9.2		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 14:10	1
Iron	18000		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 14:10	1
Lithium	17		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 14:10	1
Manganese	200		0.75	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 14:10	1
Molybdenum	0.44	J	2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 14:10	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	51000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 12:08	10
Arsenic	4.1	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:35	1
Cobalt	2.9	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 15:26	2
Iron	13000		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 13:35	1
Lithium	29		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:35	1
Manganese	100		0.75	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:35	1
Molybdenum	0.22	J	2.0	0.082	mg/Kg	☼	09/22/20 08:00	09/28/20 13:35	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	61000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	10		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	17		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	47000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	52		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	670		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	0.97	J	2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	74000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 13:27	10
Arsenic	13	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 16:31	2
Cobalt	14		5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 16:31	2
Iron	40000		10	8.2	mg/Kg	☼	09/14/20 08:00	09/29/20 16:31	2
Lithium	46		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 14:55	1
Manganese	570		0.75	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 14:55	1
Molybdenum	1.1	J	2.0	0.082	mg/Kg	☼	09/14/20 08:00	09/29/20 14:55	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-18 (173.9')

Lab Sample ID: 140-20212-9

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		40	6.4	mg/Kg	☼	09/15/20 08:00	09/21/20 14:42	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 14:42	4
Cobalt	ND		10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 14:42	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:42	4
Lithium	ND		10	0.60	mg/Kg	☼	09/15/20 08:00	09/21/20 14:42	4
Manganese	2.0	J	3.0	0.12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:42	4
Molybdenum	ND		8.1	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 14:42	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	42	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 16:33	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 16:33	3
Cobalt	ND		7.6	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 16:33	3
Iron	41	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 16:33	3
Lithium	0.65	J	7.6	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 16:33	3
Manganese	3.0		2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 16:33	3
Molybdenum	ND		6.0	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 16:33	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	130		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:51	1
Arsenic	0.18	J	0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 12:51	1
Cobalt	0.28	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 12:51	1
Iron	260		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 12:51	1
Lithium	0.51	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 12:51	1
Manganese	2.0	B	0.76	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 12:51	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/17/20 08:00	09/22/20 12:51	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1800		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 14:40	1
Arsenic	ND		0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 14:40	1
Cobalt	1.3	J	2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 14:40	1
Iron	4200		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 14:40	1
Lithium	6.1		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 14:40	1
Manganese	28		0.76	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 14:40	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/18/20 08:00	09/22/20 14:40	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 12:23	5
Arsenic	ND	*	7.6	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:23	5
Cobalt	ND	*	38	0.60	mg/Kg	☼	09/21/20 08:00	09/23/20 12:23	5
Iron	ND	**1	76	44	mg/Kg	☼	09/21/20 08:00	09/23/20 12:23	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 12:23	5
Manganese	ND	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:23	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 12:23	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7600		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 14:15	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-18 (173.9')

Lab Sample ID: 140-20212-9

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.62		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 14:15	1
Cobalt	4.4		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 14:15	1
Iron	14000		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 14:15	1
Lithium	18		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 14:15	1
Manganese	130		0.76	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 14:15	1
Molybdenum	ND		2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 14:15	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	59000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 12:13	10
Arsenic	1.6	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 13:55	1
Cobalt	2.6	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 15:31	2
Iron	11000		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 13:55	1
Lithium	100		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 13:55	1
Manganese	70		0.76	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 13:55	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/22/20 08:00	09/28/20 13:55	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	69000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	2.5		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	8.5		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	29000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	130		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	230		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	ND		2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	78000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 13:31	10
Arsenic	3.9	B	1.0	0.26	mg/Kg	☼	09/14/20 08:00	09/29/20 16:36	2
Cobalt	7.9		5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 16:36	2
Iron	27000		10	8.3	mg/Kg	☼	09/14/20 08:00	09/29/20 16:36	2
Lithium	120		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 15:15	1
Manganese	230		0.76	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 15:15	1
Molybdenum	0.097	J	2.0	0.083	mg/Kg	☼	09/14/20 08:00	09/29/20 15:15	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-18 (177')

Lab Sample ID: 140-20212-10

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 70.4

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14	J	57	9.1	mg/Kg	☼	09/15/20 08:00	09/21/20 14:47	4
Arsenic	ND		2.8	0.74	mg/Kg	☼	09/15/20 08:00	09/21/20 14:47	4
Cobalt	3.8	J	14	0.26	mg/Kg	☼	09/15/20 08:00	09/21/20 14:47	4
Iron	ND	**1	28	16	mg/Kg	☼	09/15/20 08:00	09/21/20 14:47	4
Lithium	ND		14	0.85	mg/Kg	☼	09/15/20 08:00	09/21/20 14:47	4
Manganese	1.4	J	4.3	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 14:47	4
Molybdenum	ND		11	0.47	mg/Kg	☼	09/15/20 08:00	09/21/20 14:47	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	57	**1	43	6.8	mg/Kg	☼	09/16/20 08:00	09/21/20 16:38	3
Arsenic	ND	*	2.1	0.55	mg/Kg	☼	09/16/20 08:00	09/21/20 16:38	3
Cobalt	3.8	J	11	0.27	mg/Kg	☼	09/16/20 08:00	09/21/20 16:38	3
Iron	48	**1	21	12	mg/Kg	☼	09/16/20 08:00	09/21/20 16:38	3
Lithium	ND		11	0.64	mg/Kg	☼	09/16/20 08:00	09/21/20 16:38	3
Manganese	1.3	J	3.2	1.2	mg/Kg	☼	09/16/20 08:00	09/21/20 16:38	3
Molybdenum	ND		8.5	0.35	mg/Kg	☼	09/16/20 08:00	09/21/20 16:38	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	210		14	3.0	mg/Kg	☼	09/17/20 08:00	09/22/20 12:55	1
Arsenic	1.4		0.71	0.18	mg/Kg	☼	09/17/20 08:00	09/22/20 12:55	1
Cobalt	5.6		3.6	0.064	mg/Kg	☼	09/17/20 08:00	09/22/20 12:55	1
Iron	520		7.1	4.1	mg/Kg	☼	09/17/20 08:00	09/22/20 12:55	1
Lithium	0.54	J	3.6	0.21	mg/Kg	☼	09/17/20 08:00	09/22/20 12:55	1
Manganese	1.2	B	1.1	0.038	mg/Kg	☼	09/17/20 08:00	09/22/20 12:55	1
Molybdenum	1.8	J	2.8	0.12	mg/Kg	☼	09/17/20 08:00	09/22/20 12:55	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2700		14	2.3	mg/Kg	☼	09/18/20 08:00	09/22/20 14:45	1
Arsenic	0.65	J	0.71	0.31	mg/Kg	☼	09/18/20 08:00	09/22/20 14:45	1
Cobalt	9.1		3.6	0.075	mg/Kg	☼	09/18/20 08:00	09/22/20 14:45	1
Iron	7000		7.1	4.1	mg/Kg	☼	09/18/20 08:00	09/22/20 14:45	1
Lithium	9.5		3.6	0.21	mg/Kg	☼	09/18/20 08:00	09/22/20 14:45	1
Manganese	36		1.1	0.18	mg/Kg	☼	09/18/20 08:00	09/22/20 14:45	1
Molybdenum	0.92	J	2.8	0.12	mg/Kg	☼	09/18/20 08:00	09/22/20 14:45	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140	J B *	210	33	mg/Kg	☼	09/21/20 08:00	09/23/20 12:28	5
Arsenic	ND	*	11	2.7	mg/Kg	☼	09/21/20 08:00	09/23/20 12:28	5
Cobalt	2.4	J *	53	0.85	mg/Kg	☼	09/21/20 08:00	09/23/20 12:28	5
Iron	ND	**1	110	63	mg/Kg	☼	09/21/20 08:00	09/23/20 12:28	5
Lithium	ND		53	3.1	mg/Kg	☼	09/21/20 08:00	09/23/20 12:28	5
Manganese	ND	*	16	2.6	mg/Kg	☼	09/21/20 08:00	09/23/20 12:28	5
Molybdenum	ND	*	43	1.8	mg/Kg	☼	09/21/20 08:00	09/23/20 12:28	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000		14	2.3	mg/Kg	☼	09/21/20 08:00	09/23/20 14:20	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-18 (177')

Lab Sample ID: 140-20212-10

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 70.4

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.9		0.71	0.21	mg/Kg	☼	09/21/20 08:00	09/23/20 14:20	1
Cobalt	14		3.6	0.065	mg/Kg	☼	09/21/20 08:00	09/23/20 14:20	1
Iron	19000		7.1	4.1	mg/Kg	☼	09/21/20 08:00	09/23/20 14:20	1
Lithium	27		3.6	0.21	mg/Kg	☼	09/21/20 08:00	09/23/20 14:20	1
Manganese	160		1.1	0.36	mg/Kg	☼	09/21/20 08:00	09/23/20 14:20	1
Molybdenum	0.81	J	2.8	0.14	mg/Kg	☼	09/21/20 08:00	09/23/20 14:20	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	77000		140	23	mg/Kg	☼	09/22/20 08:00	09/28/20 12:18	10
Arsenic	2.7	B	0.71	0.18	mg/Kg	☼	09/22/20 08:00	09/28/20 14:00	1
Cobalt	2.8	J	7.1	0.074	mg/Kg	☼	09/22/20 08:00	09/28/20 15:36	2
Iron	15000		7.1	5.8	mg/Kg	☼	09/22/20 08:00	09/28/20 14:00	1
Lithium	79		3.6	0.21	mg/Kg	☼	09/22/20 08:00	09/28/20 14:00	1
Manganese	82		1.1	0.16	mg/Kg	☼	09/22/20 08:00	09/28/20 14:00	1
Molybdenum	0.24	J	2.8	0.12	mg/Kg	☼	09/22/20 08:00	09/28/20 14:00	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	91000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	6.7		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	41		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	42000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	120		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	290		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	3.7		2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100000		140	23	mg/Kg	☼	09/14/20 08:00	09/29/20 13:36	10
Arsenic	7.4	B	1.4	0.37	mg/Kg	☼	09/14/20 08:00	09/29/20 16:56	2
Cobalt	22		7.1	0.074	mg/Kg	☼	09/14/20 08:00	09/29/20 16:56	2
Iron	39000		14	12	mg/Kg	☼	09/14/20 08:00	09/29/20 16:56	2
Lithium	110		3.6	0.21	mg/Kg	☼	09/14/20 08:00	09/29/20 15:20	1
Manganese	280		1.1	0.16	mg/Kg	☼	09/14/20 08:00	09/29/20 15:20	1
Molybdenum	2.0	J	2.8	0.12	mg/Kg	☼	09/14/20 08:00	09/29/20 15:20	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-21

Lab Sample ID: 140-20212-11

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.1

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8.3	J	40	6.5	mg/Kg	☼	09/15/20 08:00	09/21/20 14:51	4
Arsenic	ND		2.0	0.52	mg/Kg	☼	09/15/20 08:00	09/21/20 14:51	4
Cobalt	ND		10	0.18	mg/Kg	☼	09/15/20 08:00	09/21/20 14:51	4
Iron	ND	**1	20	12	mg/Kg	☼	09/15/20 08:00	09/21/20 14:51	4
Lithium	ND		10	0.61	mg/Kg	☼	09/15/20 08:00	09/21/20 14:51	4
Manganese	0.54	J	3.0	0.13	mg/Kg	☼	09/15/20 08:00	09/21/20 14:51	4
Molybdenum	ND		8.1	0.33	mg/Kg	☼	09/15/20 08:00	09/21/20 14:51	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	44	**1	30	4.8	mg/Kg	☼	09/16/20 08:00	09/21/20 16:42	3
Arsenic	ND	*	1.5	0.39	mg/Kg	☼	09/16/20 08:00	09/21/20 16:42	3
Cobalt	ND		7.6	0.19	mg/Kg	☼	09/16/20 08:00	09/21/20 16:42	3
Iron	30	**1	15	8.8	mg/Kg	☼	09/16/20 08:00	09/21/20 16:42	3
Lithium	0.47	J	7.6	0.45	mg/Kg	☼	09/16/20 08:00	09/21/20 16:42	3
Manganese	1.2	J	2.3	0.85	mg/Kg	☼	09/16/20 08:00	09/21/20 16:42	3
Molybdenum	ND		6.1	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 16:42	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	130		10	2.1	mg/Kg	☼	09/17/20 08:00	09/22/20 13:00	1
Arsenic	0.17	J	0.50	0.13	mg/Kg	☼	09/17/20 08:00	09/22/20 13:00	1
Cobalt	0.12	J	2.5	0.045	mg/Kg	☼	09/17/20 08:00	09/22/20 13:00	1
Iron	240		5.0	2.9	mg/Kg	☼	09/17/20 08:00	09/22/20 13:00	1
Lithium	0.72	J	2.5	0.15	mg/Kg	☼	09/17/20 08:00	09/22/20 13:00	1
Manganese	0.89	B	0.76	0.027	mg/Kg	☼	09/17/20 08:00	09/22/20 13:00	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/17/20 08:00	09/22/20 13:00	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1600		10	1.6	mg/Kg	☼	09/18/20 08:00	09/22/20 14:49	1
Arsenic	ND		0.50	0.22	mg/Kg	☼	09/18/20 08:00	09/22/20 14:49	1
Cobalt	0.72	J	2.5	0.053	mg/Kg	☼	09/18/20 08:00	09/22/20 14:49	1
Iron	3600		5.0	2.9	mg/Kg	☼	09/18/20 08:00	09/22/20 14:49	1
Lithium	6.6		2.5	0.15	mg/Kg	☼	09/18/20 08:00	09/22/20 14:49	1
Manganese	22		0.76	0.13	mg/Kg	☼	09/18/20 08:00	09/22/20 14:49	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/18/20 08:00	09/22/20 14:49	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140	J B *	150	24	mg/Kg	☼	09/21/20 08:00	09/23/20 12:33	5
Arsenic	ND	*	7.6	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:33	5
Cobalt	ND	*	38	0.61	mg/Kg	☼	09/21/20 08:00	09/23/20 12:33	5
Iron	ND	**1	76	44	mg/Kg	☼	09/21/20 08:00	09/23/20 12:33	5
Lithium	ND		38	2.2	mg/Kg	☼	09/21/20 08:00	09/23/20 12:33	5
Manganese	ND	*	11	1.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:33	5
Molybdenum	ND	*	30	1.3	mg/Kg	☼	09/21/20 08:00	09/23/20 12:33	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5800		10	1.6	mg/Kg	☼	09/21/20 08:00	09/23/20 14:26	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-21

Lab Sample ID: 140-20212-11

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.1

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.90		0.50	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 14:26	1
Cobalt	2.7		2.5	0.046	mg/Kg	☼	09/21/20 08:00	09/23/20 14:26	1
Iron	9300		5.0	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 14:26	1
Lithium	15		2.5	0.15	mg/Kg	☼	09/21/20 08:00	09/23/20 14:26	1
Manganese	98		0.76	0.25	mg/Kg	☼	09/21/20 08:00	09/23/20 14:26	1
Molybdenum	ND		2.0	0.10	mg/Kg	☼	09/21/20 08:00	09/23/20 14:26	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	71000		100	16	mg/Kg	☼	09/22/20 08:00	09/28/20 12:22	10
Arsenic	2.2	B	0.50	0.13	mg/Kg	☼	09/22/20 08:00	09/28/20 14:04	1
Cobalt	1.6	J	5.0	0.052	mg/Kg	☼	09/22/20 08:00	09/28/20 15:41	2
Iron	9700		5.0	4.1	mg/Kg	☼	09/22/20 08:00	09/28/20 14:04	1
Lithium	150		2.5	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 14:04	1
Manganese	44		0.76	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 14:04	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/22/20 08:00	09/28/20 14:04	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	78000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	3.3		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	5.2		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	23000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	170		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	170		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	ND		2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	120000		100	16	mg/Kg	☼	09/14/20 08:00	09/29/20 13:40	10
Arsenic	4.0	B	0.50	0.13	mg/Kg	☼	09/14/20 08:00	09/29/20 15:25	1
Cobalt	4.9	J	5.0	0.052	mg/Kg	☼	09/14/20 08:00	09/29/20 17:01	2
Iron	22000		5.0	4.1	mg/Kg	☼	09/14/20 08:00	09/29/20 15:25	1
Lithium	190		2.5	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 15:25	1
Manganese	170		0.76	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 15:25	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	09/14/20 08:00	09/29/20 15:25	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-23H

Lab Sample ID: 140-20212-12

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 75.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		53	8.5	mg/Kg	☼	09/15/20 08:00	09/21/20 14:56	4
Arsenic	ND		2.7	0.69	mg/Kg	☼	09/15/20 08:00	09/21/20 14:56	4
Cobalt	0.24	J	13	0.24	mg/Kg	☼	09/15/20 08:00	09/21/20 14:56	4
Iron	81	**1	27	15	mg/Kg	☼	09/15/20 08:00	09/21/20 14:56	4
Lithium	ND		13	0.80	mg/Kg	☼	09/15/20 08:00	09/21/20 14:56	4
Manganese	5.0		4.0	0.16	mg/Kg	☼	09/15/20 08:00	09/21/20 14:56	4
Molybdenum	ND		11	0.44	mg/Kg	☼	09/15/20 08:00	09/21/20 14:56	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	43	**1	40	6.4	mg/Kg	☼	09/16/20 08:00	09/21/20 16:47	3
Arsenic	ND	*	2.0	0.52	mg/Kg	☼	09/16/20 08:00	09/21/20 16:47	3
Cobalt	0.89	J	10	0.25	mg/Kg	☼	09/16/20 08:00	09/21/20 16:47	3
Iron	81	**1	20	12	mg/Kg	☼	09/16/20 08:00	09/21/20 16:47	3
Lithium	ND		10	0.60	mg/Kg	☼	09/16/20 08:00	09/21/20 16:47	3
Manganese	13		3.0	1.1	mg/Kg	☼	09/16/20 08:00	09/21/20 16:47	3
Molybdenum	ND		8.0	0.33	mg/Kg	☼	09/16/20 08:00	09/21/20 16:47	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	160		13	2.8	mg/Kg	☼	09/17/20 08:00	09/22/20 13:05	1
Arsenic	2.0		0.66	0.17	mg/Kg	☼	09/17/20 08:00	09/22/20 13:05	1
Cobalt	1.7	J	3.3	0.060	mg/Kg	☼	09/17/20 08:00	09/22/20 13:05	1
Iron	1900		6.6	3.9	mg/Kg	☼	09/17/20 08:00	09/22/20 13:05	1
Lithium	0.61	J	3.3	0.20	mg/Kg	☼	09/17/20 08:00	09/22/20 13:05	1
Manganese	53	B	1.0	0.036	mg/Kg	☼	09/17/20 08:00	09/22/20 13:05	1
Molybdenum	0.19	J	2.7	0.11	mg/Kg	☼	09/17/20 08:00	09/22/20 13:05	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2600		13	2.1	mg/Kg	☼	09/18/20 08:00	09/22/20 14:54	1
Arsenic	ND		0.66	0.29	mg/Kg	☼	09/18/20 08:00	09/22/20 14:54	1
Cobalt	3.4		3.3	0.070	mg/Kg	☼	09/18/20 08:00	09/22/20 14:54	1
Iron	9000		6.6	3.9	mg/Kg	☼	09/18/20 08:00	09/22/20 14:54	1
Lithium	8.3		3.3	0.20	mg/Kg	☼	09/18/20 08:00	09/22/20 14:54	1
Manganese	160		1.0	0.17	mg/Kg	☼	09/18/20 08:00	09/22/20 14:54	1
Molybdenum	ND		2.7	0.11	mg/Kg	☼	09/18/20 08:00	09/22/20 14:54	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140	J B *	200	31	mg/Kg	☼	09/21/20 08:00	09/23/20 12:38	5
Arsenic	ND	*	10	2.5	mg/Kg	☼	09/21/20 08:00	09/23/20 12:38	5
Cobalt	ND	*	50	0.80	mg/Kg	☼	09/21/20 08:00	09/23/20 12:38	5
Iron	ND	**1	100	58	mg/Kg	☼	09/21/20 08:00	09/23/20 12:38	5
Lithium	ND		50	2.9	mg/Kg	☼	09/21/20 08:00	09/23/20 12:38	5
Manganese	ND	*	15	2.5	mg/Kg	☼	09/21/20 08:00	09/23/20 12:38	5
Molybdenum	ND	*	40	1.7	mg/Kg	☼	09/21/20 08:00	09/23/20 12:38	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9600		13	2.1	mg/Kg	☼	09/21/20 08:00	09/23/20 14:30	1

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Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-23H

Lab Sample ID: 140-20212-12

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 75.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.3		0.66	0.20	mg/Kg	☼	09/21/20 08:00	09/23/20 14:30	1
Cobalt	6.9		3.3	0.061	mg/Kg	☼	09/21/20 08:00	09/23/20 14:30	1
Iron	19000		6.6	3.9	mg/Kg	☼	09/21/20 08:00	09/23/20 14:30	1
Lithium	23		3.3	0.20	mg/Kg	☼	09/21/20 08:00	09/23/20 14:30	1
Manganese	190		1.0	0.33	mg/Kg	☼	09/21/20 08:00	09/23/20 14:30	1
Molybdenum	ND		2.7	0.13	mg/Kg	☼	09/21/20 08:00	09/23/20 14:30	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	84000		130	21	mg/Kg	☼	09/22/20 08:00	09/28/20 12:27	10
Arsenic	3.9	B	0.66	0.17	mg/Kg	☼	09/22/20 08:00	09/28/20 14:10	1
Cobalt	2.8	J	6.6	0.069	mg/Kg	☼	09/22/20 08:00	09/28/20 15:46	2
Iron	14000		6.6	5.4	mg/Kg	☼	09/22/20 08:00	09/28/20 14:10	1
Lithium	92		3.3	0.20	mg/Kg	☼	09/22/20 08:00	09/28/20 14:10	1
Manganese	93		1.0	0.15	mg/Kg	☼	09/22/20 08:00	09/28/20 14:10	1
Molybdenum	ND		2.7	0.11	mg/Kg	☼	09/22/20 08:00	09/28/20 14:10	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	97000		10	1.6	mg/Kg			10/01/20 09:43	1
Arsenic	11		0.50	0.13	mg/Kg			10/01/20 09:43	1
Cobalt	16		2.5	0.023	mg/Kg			10/01/20 09:43	1
Iron	44000		5.0	4.1	mg/Kg			10/01/20 09:43	1
Lithium	120		2.5	0.15	mg/Kg			10/01/20 09:43	1
Manganese	510		0.75	0.052	mg/Kg			10/01/20 09:43	1
Molybdenum	0.19	J	2.0	0.082	mg/Kg			10/01/20 09:43	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100000		130	21	mg/Kg	☼	09/14/20 08:00	09/29/20 13:45	10
Arsenic	12	B	1.3	0.35	mg/Kg	☼	09/14/20 08:00	09/29/20 17:06	2
Cobalt	14		6.6	0.069	mg/Kg	☼	09/14/20 08:00	09/29/20 17:06	2
Iron	41000		13	11	mg/Kg	☼	09/14/20 08:00	09/29/20 17:06	2
Lithium	140		3.3	0.20	mg/Kg	☼	09/14/20 08:00	09/29/20 15:30	1
Manganese	470		1.0	0.15	mg/Kg	☼	09/14/20 08:00	09/29/20 15:30	1
Molybdenum	0.41	J	2.7	0.11	mg/Kg	☼	09/14/20 08:00	09/29/20 15:30	1

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			09/02/20 14:00	1

Default Detection Limits

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Prep: 3010A

SEP: Exchangeable

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.045	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.031	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Prep: 3010A

SEP: Carbonate

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.063	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.28	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Prep: 3010A

SEP: Non-Crystalline

Analyte	RL	MDL	Units
Aluminum	10	2.1	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.045	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.027	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Prep: 3010A

SEP: Metal Hydroxide

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.22	mg/Kg
Cobalt	2.5	0.053	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.13	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Prep: 3010A

SEP: Organic-Bound

Analyte	RL	MDL	Units
Aluminum	30	4.7	mg/Kg
Arsenic	1.5	0.38	mg/Kg

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Default Detection Limits

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) - Step 5 (Continued)

Prep: 3010A

SEP: Organic-Bound

Analyte	RL	MDL	Units
Cobalt	7.5	0.12	mg/Kg
Iron	15	8.8	mg/Kg
Lithium	7.5	0.44	mg/Kg
Manganese	2.3	0.37	mg/Kg
Molybdenum	6.0	0.25	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 6

SEP: Acid/Sulfide

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.15	mg/Kg
Cobalt	2.5	0.046	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.25	mg/Kg
Molybdenum	2.0	0.099	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Prep: Residual

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.026	mg/Kg
Iron	5.0	4.1	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.11	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.023	mg/Kg
Iron	5.0	4.1	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.052	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B - SEP Metals (ICP) - Total

Prep: Total

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.026	mg/Kg
Iron	5.0	4.1	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.11	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

QC Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B - SEP Metals (ICP) - Total

Lab Sample ID: MB 140-42659/16-A
Matrix: Solid
Analysis Batch: 43169

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42659

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		10	1.6	mg/Kg		09/14/20 08:00	09/29/20 12:21	1
Arsenic	0.237	J	0.50	0.13	mg/Kg		09/14/20 08:00	09/29/20 12:21	1
Cobalt	ND		2.5	0.026	mg/Kg		09/14/20 08:00	09/29/20 12:21	1
Iron	ND		5.0	4.1	mg/Kg		09/14/20 08:00	09/29/20 12:21	1
Lithium	ND		2.5	0.15	mg/Kg		09/14/20 08:00	09/29/20 12:21	1
Manganese	ND		0.75	0.11	mg/Kg		09/14/20 08:00	09/29/20 12:21	1
Molybdenum	ND		2.0	0.082	mg/Kg		09/14/20 08:00	09/29/20 12:21	1

Lab Sample ID: LCS 140-42659/17-A
Matrix: Solid
Analysis Batch: 43169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Aluminum	100	99.2		mg/Kg		99	75 - 125
Arsenic	5.00	5.12		mg/Kg		102	75 - 125	
Cobalt	5.00	5.18		mg/Kg		104	75 - 125	
Iron	50.0	52.2		mg/Kg		104	75 - 125	
Lithium	5.00	5.01		mg/Kg		100	75 - 125	
Manganese	5.00	5.21		mg/Kg		104	75 - 125	
Molybdenum	25.0	25.9		mg/Kg		104	75 - 125	

Lab Sample ID: LCSD 140-42659/18-A
Matrix: Solid
Analysis Batch: 43169

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 42659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							Aluminum	100	97.6		mg/Kg		98	75 - 125	2	30
Arsenic	5.00	5.15		mg/Kg		103	75 - 125	0	30	
Cobalt	5.00	5.18		mg/Kg		104	75 - 125	0	30	
Iron	50.0	57.9		mg/Kg		116	75 - 125	10	30	
Lithium	5.00	5.05		mg/Kg		101	75 - 125	1	30	
Manganese	5.00	5.27		mg/Kg		105	75 - 125	1	30	
Molybdenum	25.0	26.0		mg/Kg		104	75 - 125	0	30	

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43169

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Total/NA
Prep Batch: 42659

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43169

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Total/NA
Prep Batch: 42659

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Manganese	590		539		mg/Kg	✘	8	30
Molybdenum	4.6		4.29		mg/Kg	✘	6	30

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QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B - SEP Metals (ICP) - Total (Continued)

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43169

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Total/NA
Prep Batch: 42659

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Arsenic	4.7	B	4.93		mg/Kg	☼	4	30
Cobalt	14		13.6		mg/Kg	☼	0.6	30
Iron	36000		37700		mg/Kg	☼	4	30

Method: 6010B SEP - SEP Metals (ICP)

Lab Sample ID: MB 140-42663/16-B ^4
Matrix: Solid
Analysis Batch: 42965

Client Sample ID: Method Blank
Prep Type: Step 1
Prep Batch: 42733

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		40	6.4	mg/Kg		09/15/20 08:00	09/21/20 13:31	4
Arsenic	ND		2.0	0.52	mg/Kg		09/15/20 08:00	09/21/20 13:31	4
Cobalt	ND		10	0.18	mg/Kg		09/15/20 08:00	09/21/20 13:31	4
Iron	ND		20	12	mg/Kg		09/15/20 08:00	09/21/20 13:31	4
Lithium	ND		10	0.60	mg/Kg		09/15/20 08:00	09/21/20 13:31	4
Manganese	ND		3.0	0.12	mg/Kg		09/15/20 08:00	09/21/20 13:31	4
Molybdenum	ND		8.0	0.33	mg/Kg		09/15/20 08:00	09/21/20 13:31	4

Lab Sample ID: LCS 140-42663/17-B ^5
Matrix: Solid
Analysis Batch: 42965

Client Sample ID: Lab Control Sample
Prep Type: Step 1
Prep Batch: 42733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Aluminum	100	105		mg/Kg		105	75 - 125	
Arsenic	5.00	4.84		mg/Kg		97	75 - 125	
Cobalt	5.00	5.03	J	mg/Kg		101	75 - 125	
Iron	50.0	51.7		mg/Kg		103	75 - 125	
Lithium	5.00	4.62	J	mg/Kg		92	75 - 125	
Manganese	5.00	5.14		mg/Kg		103	75 - 125	
Molybdenum	25.0	24.4		mg/Kg		98	75 - 125	

Lab Sample ID: LCSD 140-42663/18-B ^5
Matrix: Solid
Analysis Batch: 42965

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 1
Prep Batch: 42733

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
Aluminum	100	105		mg/Kg		105	75 - 125	0	30	
Arsenic	5.00	4.97		mg/Kg		99	75 - 125	3	30	
Cobalt	5.00	5.11	J	mg/Kg		102	75 - 125	2	30	
Iron	50.0	70.9	* *1	mg/Kg		142	75 - 125	31	30	
Lithium	5.00	5.04	J	mg/Kg		101	75 - 125	9	30	
Manganese	5.00	5.39		mg/Kg		108	75 - 125	5	30	
Molybdenum	25.0	25.1		mg/Kg		100	75 - 125	3	30	

QC Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 42965

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 1
Prep Batch: 42733

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	ND		ND		mg/Kg	*	NC	30
Arsenic	ND		ND		mg/Kg	*	NC	30
Cobalt	0.19	J	0.220	J	mg/Kg	*	17	30
Iron	ND	**1	ND	**1	mg/Kg	*	NC	30
Lithium	ND		ND		mg/Kg	*	NC	30
Manganese	1.8	J	2.15	J	mg/Kg	*	17	30
Molybdenum	0.35	J	0.423	J	mg/Kg	*	18	30

Lab Sample ID: MB 140-42734/16-B ^3
Matrix: Solid
Analysis Batch: 42965

Client Sample ID: Method Blank
Prep Type: Step 2
Prep Batch: 42784

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Aluminum	ND		30	4.8	mg/Kg		09/16/20 08:00	09/21/20 15:20		3
Arsenic	ND		1.5	0.39	mg/Kg		09/16/20 08:00	09/21/20 15:20		3
Cobalt	ND		7.5	0.19	mg/Kg		09/16/20 08:00	09/21/20 15:20		3
Iron	ND		15	8.7	mg/Kg		09/16/20 08:00	09/21/20 15:20		3
Lithium	ND		7.5	0.45	mg/Kg		09/16/20 08:00	09/21/20 15:20		3
Manganese	ND		2.3	0.84	mg/Kg		09/16/20 08:00	09/21/20 15:20		3
Molybdenum	ND		6.0	0.25	mg/Kg		09/16/20 08:00	09/21/20 15:20		3

Lab Sample ID: LCS 140-42734/17-B ^5
Matrix: Solid
Analysis Batch: 42965

Client Sample ID: Lab Control Sample
Prep Type: Step 2
Prep Batch: 42784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	3.70	*	mg/Kg		74	75 - 125
Cobalt	5.00	4.67	J	mg/Kg		93	75 - 125
Iron	50.0	ND	*	mg/Kg		5	75 - 125
Lithium	5.00	4.36	J	mg/Kg		87	75 - 125
Manganese	5.00	4.66		mg/Kg		93	75 - 125
Molybdenum	25.0	20.5		mg/Kg		82	75 - 125

Lab Sample ID: LCSD 140-42734/18-B ^5
Matrix: Solid
Analysis Batch: 42965

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 2
Prep Batch: 42784

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	5.00	3.79		mg/Kg		76	75 - 125	3	30
Cobalt	5.00	4.75	J	mg/Kg		95	75 - 125	2	30
Iron	50.0	ND	**1	mg/Kg		11	75 - 125	74	30
Lithium	5.00	4.22	J	mg/Kg		84	75 - 125	3	30
Manganese	5.00	4.87		mg/Kg		97	75 - 125	4	30
Molybdenum	25.0	20.6		mg/Kg		82	75 - 125	1	30

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-20212-6 DU

Matrix: Solid

Analysis Batch: 42965

Client Sample ID: GS-AP-MW-12V (167.6')

Prep Type: Step 2

Prep Batch: 42784

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	57	**1	73.3	**1	mg/Kg	☼	26	30
Arsenic	ND	*	ND	*	mg/Kg	☼	NC	30
Cobalt	0.98	J	1.02	J	mg/Kg	☼	4	30
Iron	240	**1	285	**1	mg/Kg	☼	17	30
Lithium	ND		ND		mg/Kg	☼	NC	30
Manganese	14		15.5		mg/Kg	☼	8	30
Molybdenum	ND		ND		mg/Kg	☼	NC	30

Lab Sample ID: MB 140-42785/16-B

Matrix: Solid

Analysis Batch: 42992

Client Sample ID: Method Blank

Prep Type: Step 3

Prep Batch: 42838

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Aluminum	ND		10	2.1	mg/Kg		09/17/20 08:00	09/22/20 11:39		1
Arsenic	ND		0.50	0.13	mg/Kg		09/17/20 08:00	09/22/20 11:39		1
Cobalt	ND		2.5	0.045	mg/Kg		09/17/20 08:00	09/22/20 11:39		1
Iron	ND		5.0	2.9	mg/Kg		09/17/20 08:00	09/22/20 11:39		1
Lithium	ND		2.5	0.15	mg/Kg		09/17/20 08:00	09/22/20 11:39		1
Manganese	0.0495	J	0.75	0.027	mg/Kg		09/17/20 08:00	09/22/20 11:39		1
Molybdenum	ND		2.0	0.082	mg/Kg		09/17/20 08:00	09/22/20 11:39		1

Lab Sample ID: LCS 140-42785/17-B

Matrix: Solid

Analysis Batch: 42992

Client Sample ID: Lab Control Sample

Prep Type: Step 3

Prep Batch: 42838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	4.91		mg/Kg		98	75 - 125
Cobalt	5.00	5.02		mg/Kg		100	75 - 125
Iron	50.0	50.7		mg/Kg		101	75 - 125
Lithium	5.00	5.20		mg/Kg		104	75 - 125
Manganese	5.00	5.15		mg/Kg		103	75 - 125
Molybdenum	25.0	24.5		mg/Kg		98	75 - 125

Lab Sample ID: LCSD 140-42785/18-B

Matrix: Solid

Analysis Batch: 42992

Client Sample ID: Lab Control Sample Dup

Prep Type: Step 3

Prep Batch: 42838

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	5.00	5.09		mg/Kg		102	75 - 125	4	30
Cobalt	5.00	5.16		mg/Kg		103	75 - 125	3	30
Iron	50.0	52.2		mg/Kg		104	75 - 125	3	30
Lithium	5.00	5.28		mg/Kg		106	75 - 125	1	30
Manganese	5.00	5.24		mg/Kg		105	75 - 125	2	30
Molybdenum	25.0	24.8		mg/Kg		99	75 - 125	1	30

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 42992

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 3
Prep Batch: 42838

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	150		177		mg/Kg	☼	19	30
Arsenic	0.50		0.564		mg/Kg	☼	13	30
Cobalt	1.0	J	0.965	J	mg/Kg	☼	6	30
Iron	3400		3970		mg/Kg	☼	16	30
Lithium	0.27	J	0.321	J	mg/Kg	☼	16	30
Manganese	93	B	109		mg/Kg	☼	16	30
Molybdenum	0.65	J	0.608	J	mg/Kg	☼	6	30

Lab Sample ID: MB 140-42839/16-B
Matrix: Solid
Analysis Batch: 42992

Client Sample ID: Method Blank
Prep Type: Step 4
Prep Batch: 42879

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Aluminum	ND		10	1.6	mg/Kg		09/18/20 08:00	09/22/20 13:29		1
Arsenic	ND		0.50	0.22	mg/Kg		09/18/20 08:00	09/22/20 13:29		1
Cobalt	ND		2.5	0.053	mg/Kg		09/18/20 08:00	09/22/20 13:29		1
Iron	ND		5.0	2.9	mg/Kg		09/18/20 08:00	09/22/20 13:29		1
Lithium	ND		2.5	0.15	mg/Kg		09/18/20 08:00	09/22/20 13:29		1
Manganese	ND		0.75	0.13	mg/Kg		09/18/20 08:00	09/22/20 13:29		1
Molybdenum	ND		2.0	0.082	mg/Kg		09/18/20 08:00	09/22/20 13:29		1

Lab Sample ID: LCS 140-42839/17-B
Matrix: Solid
Analysis Batch: 42992

Client Sample ID: Lab Control Sample
Prep Type: Step 4
Prep Batch: 42879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.08		mg/Kg		102	75 - 125
Cobalt	5.00	5.05		mg/Kg		101	75 - 125
Iron	50.0	49.6		mg/Kg		99	75 - 125
Lithium	5.00	5.16		mg/Kg		103	75 - 125
Manganese	5.00	5.12		mg/Kg		102	75 - 125
Molybdenum	25.0	25.6		mg/Kg		102	75 - 125

Lab Sample ID: LCSD 140-42839/18-B
Matrix: Solid
Analysis Batch: 42992

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 4
Prep Batch: 42879

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	5.00	5.61		mg/Kg		112	75 - 125	10	30
Cobalt	5.00	5.54		mg/Kg		111	75 - 125	9	30
Iron	50.0	55.2		mg/Kg		110	75 - 125	11	30
Lithium	5.00	5.54		mg/Kg		111	75 - 125	7	30
Manganese	5.00	5.61		mg/Kg		112	75 - 125	9	30
Molybdenum	25.0	27.8		mg/Kg		111	75 - 125	8	30

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 42992

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 4
Prep Batch: 42879

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	1800		2060		mg/Kg	☼	12	30
Arsenic	ND		ND		mg/Kg	☼	NC	30
Cobalt	2.3 J		2.35 J		mg/Kg	☼	0.8	30
Iron	9800		10600		mg/Kg	☼	7	30
Lithium	4.1		4.65		mg/Kg	☼	14	30
Manganese	230		236		mg/Kg	☼	4	30
Molybdenum	0.62 J		0.424 J F5		mg/Kg	☼	37	30

Lab Sample ID: MB 140-42880/16-B ^5
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: Method Blank
Prep Type: Step 5
Prep Batch: 42915

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Aluminum	43.7 J		150	24	mg/Kg		09/21/20 08:00	09/23/20 11:10		5
Arsenic	ND		7.5	1.9	mg/Kg		09/21/20 08:00	09/23/20 11:10		5
Cobalt	ND		38	0.60	mg/Kg		09/21/20 08:00	09/23/20 11:10		5
Iron	ND		75	44	mg/Kg		09/21/20 08:00	09/23/20 11:10		5
Lithium	2.21 J		38	2.2	mg/Kg		09/21/20 08:00	09/23/20 11:10		5
Manganese	ND		11	1.9	mg/Kg		09/21/20 08:00	09/23/20 11:10		5
Molybdenum	ND		30	1.3	mg/Kg		09/21/20 08:00	09/23/20 11:10		5

Lab Sample ID: LCS 140-42880/17-B ^5
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: Lab Control Sample
Prep Type: Step 5
Prep Batch: 42915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	15.0	10.5 *	mg/Kg		70	75 - 125	
Cobalt	15.0	1.36 J *	mg/Kg		9	75 - 125	
Iron	150	ND *	mg/Kg		0.7	75 - 125	
Lithium	15.0	15.3 J	mg/Kg		102	75 - 125	
Manganese	15.0	3.86 J *	mg/Kg		26	75 - 125	
Molybdenum	75.0	53.8 *	mg/Kg		72	75 - 125	

Lab Sample ID: LCSD 140-42880/18-B ^5
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 5
Prep Batch: 42915

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	15.0	11.2	mg/Kg		75	75 - 125	6	30	
Cobalt	15.0	1.78 J *	mg/Kg		12	75 - 125	27	30	
Iron	150	ND **1	mg/Kg		2	75 - 125	108	30	
Lithium	15.0	15.4 J	mg/Kg		103	75 - 125	1	30	
Manganese	15.0	2.97 J *	mg/Kg		20	75 - 125	26	30	
Molybdenum	75.0	54.9 *	mg/Kg		73	75 - 125	2	30	

QC Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 5
Prep Batch: 42915

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	82	J B *	82.8	J *	mg/Kg	☼	0.4	30
Arsenic	ND	*	ND	*	mg/Kg	☼	NC	30
Cobalt	0.98	J *	1.28	J *	mg/Kg	☼	26	30
Iron	ND	**1	ND	**1	mg/Kg	☼	NC	30
Lithium	ND		ND		mg/Kg	☼	NC	30
Manganese	3.9	J *	3.08	J *	mg/Kg	☼	23	30
Molybdenum	1.8	J *	1.90	J *	mg/Kg	☼	4	30

Lab Sample ID: MB 140-42916/16-A
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: Method Blank
Prep Type: Step 6
Prep Batch: 42916

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Aluminum	ND		10	1.6	mg/Kg		09/21/20 08:00	09/23/20 13:02		1
Arsenic	ND		0.50	0.15	mg/Kg		09/21/20 08:00	09/23/20 13:02		1
Cobalt	ND		2.5	0.046	mg/Kg		09/21/20 08:00	09/23/20 13:02		1
Iron	ND		5.0	2.9	mg/Kg		09/21/20 08:00	09/23/20 13:02		1
Lithium	ND		2.5	0.15	mg/Kg		09/21/20 08:00	09/23/20 13:02		1
Manganese	ND		0.75	0.25	mg/Kg		09/21/20 08:00	09/23/20 13:02		1
Molybdenum	ND		2.0	0.099	mg/Kg		09/21/20 08:00	09/23/20 13:02		1

Lab Sample ID: LCS 140-42916/17-A
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: Lab Control Sample
Prep Type: Step 6
Prep Batch: 42916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	4.97		mg/Kg		99	75 - 125
Cobalt	5.00	5.04		mg/Kg		101	75 - 125
Iron	50.0	49.2		mg/Kg		98	75 - 125
Lithium	5.00	4.96		mg/Kg		99	75 - 125
Manganese	5.00	5.14		mg/Kg		103	75 - 125
Molybdenum	25.0	24.5		mg/Kg		98	75 - 125

Lab Sample ID: LCSD 140-42916/18-A
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 6
Prep Batch: 42916

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	5.00	5.04		mg/Kg		101	75 - 125	1	30
Cobalt	5.00	5.11		mg/Kg		102	75 - 125	1	30
Iron	50.0	49.7		mg/Kg		99	75 - 125	1	30
Lithium	5.00	5.01		mg/Kg		100	75 - 125	1	30
Manganese	5.00	5.15		mg/Kg		103	75 - 125	0	30
Molybdenum	25.0	25.3		mg/Kg		101	75 - 125	3	30

QC Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43029

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 6
Prep Batch: 42916

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	7600		7290		mg/Kg	*	4	30
Arsenic	1.2		1.06		mg/Kg	*	15	30
Cobalt	8.2		7.20		mg/Kg	*	13	30
Iron	16000		15300		mg/Kg	*	6	30
Lithium	15		14.1		mg/Kg	*	6	30
Manganese	190		170		mg/Kg	*	10	30
Molybdenum	1.7 J		1.42 J		mg/Kg	*	18	30

Lab Sample ID: MB 140-42963/16-A
Matrix: Solid
Analysis Batch: 43129

Client Sample ID: Method Blank
Prep Type: Step 7
Prep Batch: 42963

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Aluminum	ND		10	1.6	mg/Kg		09/22/20 08:00	09/28/20 11:02		1
Arsenic	0.245 J		0.50	0.13	mg/Kg		09/22/20 08:00	09/28/20 11:02		1
Cobalt	ND		2.5	0.026	mg/Kg		09/22/20 08:00	09/28/20 11:02		1
Iron	ND		5.0	4.1	mg/Kg		09/22/20 08:00	09/28/20 11:02		1
Lithium	ND		2.5	0.15	mg/Kg		09/22/20 08:00	09/28/20 11:02		1
Manganese	ND		0.75	0.11	mg/Kg		09/22/20 08:00	09/28/20 11:02		1
Molybdenum	ND		2.0	0.082	mg/Kg		09/22/20 08:00	09/28/20 11:02		1

Lab Sample ID: LCS 140-42963/17-A
Matrix: Solid
Analysis Batch: 43129

Client Sample ID: Lab Control Sample
Prep Type: Step 7
Prep Batch: 42963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.38		mg/Kg		108	75 - 125
Cobalt	5.00	5.25		mg/Kg		105	75 - 125
Iron	50.0	53.9		mg/Kg		108	75 - 125
Lithium	5.00	5.23		mg/Kg		105	75 - 125
Manganese	5.00	5.38		mg/Kg		108	75 - 125
Molybdenum	25.0	26.7		mg/Kg		107	75 - 125

Lab Sample ID: LCSD 140-42963/18-A
Matrix: Solid
Analysis Batch: 43129

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 7
Prep Batch: 42963

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	5.00	5.20		mg/Kg		104	75 - 125	4	30
Cobalt	5.00	5.14		mg/Kg		103	75 - 125	2	30
Iron	50.0	51.9		mg/Kg		104	75 - 125	4	30
Lithium	5.00	5.07		mg/Kg		101	75 - 125	3	30
Manganese	5.00	5.26		mg/Kg		105	75 - 125	2	30
Molybdenum	25.0	26.1		mg/Kg		104	75 - 125	2	30

QC Sample Results

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43129

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 7
Prep Batch: 42963

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	60000		43800	F3	mg/Kg	⊛	32	30

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43129

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 7
Prep Batch: 42963

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Arsenic	2.4	B	1.76	F3	mg/Kg	⊛	31	30
Iron	12000		10200		mg/Kg	⊛	13	30
Lithium	24		21.8		mg/Kg	⊛	11	30
Manganese	97		75.2		mg/Kg	⊛	26	30
Molybdenum	0.70	J	0.412	J F5	mg/Kg	⊛	52	30

Lab Sample ID: 140-20212-6 DU
Matrix: Solid
Analysis Batch: 43129

Client Sample ID: GS-AP-MW-12V (167.6')
Prep Type: Step 7
Prep Batch: 42963

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Cobalt	2.4	J	1.68	J F5	mg/Kg	⊛	35	30

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals

Prep Batch: 42659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Total/NA	Solid	Total	
140-20212-2	GS-AP-MW-6	Total/NA	Solid	Total	
140-20212-3	GS-AP-MW-7V	Total/NA	Solid	Total	
140-20212-4	GS-AP-MW-8	Total/NA	Solid	Total	
140-20212-5	GS-AP-MW-12V (135')	Total/NA	Solid	Total	
140-20212-6	GS-AP-MW-12V (167.6')	Total/NA	Solid	Total	
140-20212-7	GS-AP-MW-15	Total/NA	Solid	Total	
140-20212-8	GS-AP-MW-17V	Total/NA	Solid	Total	
140-20212-9	GS-AP-MW-18 (173.9')	Total/NA	Solid	Total	
140-20212-10	GS-AP-MW-18 (177')	Total/NA	Solid	Total	
140-20212-11	GS-AP-MW-21	Total/NA	Solid	Total	
140-20212-12	GS-AP-MW-23H	Total/NA	Solid	Total	
MB 140-42659/16-A	Method Blank	Total/NA	Solid	Total	
LCS 140-42659/17-A	Lab Control Sample	Total/NA	Solid	Total	
LCS 140-42659/18-A	Lab Control Sample Dup	Total/NA	Solid	Total	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Total/NA	Solid	Total	

SEP Batch: 42663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 1	Solid	Exchangeable	
140-20212-2	GS-AP-MW-6	Step 1	Solid	Exchangeable	
140-20212-3	GS-AP-MW-7V	Step 1	Solid	Exchangeable	
140-20212-4	GS-AP-MW-8	Step 1	Solid	Exchangeable	
140-20212-5	GS-AP-MW-12V (135')	Step 1	Solid	Exchangeable	
140-20212-6	GS-AP-MW-12V (167.6')	Step 1	Solid	Exchangeable	
140-20212-7	GS-AP-MW-15	Step 1	Solid	Exchangeable	
140-20212-8	GS-AP-MW-17V	Step 1	Solid	Exchangeable	
140-20212-9	GS-AP-MW-18 (173.9')	Step 1	Solid	Exchangeable	
140-20212-10	GS-AP-MW-18 (177')	Step 1	Solid	Exchangeable	
140-20212-11	GS-AP-MW-21	Step 1	Solid	Exchangeable	
140-20212-12	GS-AP-MW-23H	Step 1	Solid	Exchangeable	
MB 140-42663/16-B ^4	Method Blank	Step 1	Solid	Exchangeable	
LCS 140-42663/17-B ^5	Lab Control Sample	Step 1	Solid	Exchangeable	
LCS 140-42663/18-B ^5	Lab Control Sample Dup	Step 1	Solid	Exchangeable	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 1	Solid	Exchangeable	

Prep Batch: 42733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 1	Solid	3010A	42663
140-20212-2	GS-AP-MW-6	Step 1	Solid	3010A	42663
140-20212-3	GS-AP-MW-7V	Step 1	Solid	3010A	42663
140-20212-4	GS-AP-MW-8	Step 1	Solid	3010A	42663
140-20212-5	GS-AP-MW-12V (135')	Step 1	Solid	3010A	42663
140-20212-6	GS-AP-MW-12V (167.6')	Step 1	Solid	3010A	42663
140-20212-7	GS-AP-MW-15	Step 1	Solid	3010A	42663
140-20212-8	GS-AP-MW-17V	Step 1	Solid	3010A	42663
140-20212-9	GS-AP-MW-18 (173.9')	Step 1	Solid	3010A	42663
140-20212-10	GS-AP-MW-18 (177')	Step 1	Solid	3010A	42663
140-20212-11	GS-AP-MW-21	Step 1	Solid	3010A	42663
140-20212-12	GS-AP-MW-23H	Step 1	Solid	3010A	42663
MB 140-42663/16-B ^4	Method Blank	Step 1	Solid	3010A	42663

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

Prep Batch: 42733 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 140-42663/17-B ^5	Lab Control Sample	Step 1	Solid	3010A	42663
LCSD 140-42663/18-B ^5	Lab Control Sample Dup	Step 1	Solid	3010A	42663
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 1	Solid	3010A	42663

SEP Batch: 42734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 2	Solid	Carbonate	
140-20212-2	GS-AP-MW-6	Step 2	Solid	Carbonate	
140-20212-3	GS-AP-MW-7V	Step 2	Solid	Carbonate	
140-20212-4	GS-AP-MW-8	Step 2	Solid	Carbonate	
140-20212-5	GS-AP-MW-12V (135')	Step 2	Solid	Carbonate	
140-20212-6	GS-AP-MW-12V (167.6')	Step 2	Solid	Carbonate	
140-20212-7	GS-AP-MW-15	Step 2	Solid	Carbonate	
140-20212-8	GS-AP-MW-17V	Step 2	Solid	Carbonate	
140-20212-9	GS-AP-MW-18 (173.9')	Step 2	Solid	Carbonate	
140-20212-10	GS-AP-MW-18 (177')	Step 2	Solid	Carbonate	
140-20212-11	GS-AP-MW-21	Step 2	Solid	Carbonate	
140-20212-12	GS-AP-MW-23H	Step 2	Solid	Carbonate	
MB 140-42734/16-B ^3	Method Blank	Step 2	Solid	Carbonate	
LCS 140-42734/17-B ^5	Lab Control Sample	Step 2	Solid	Carbonate	
LCSD 140-42734/18-B ^5	Lab Control Sample Dup	Step 2	Solid	Carbonate	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 2	Solid	Carbonate	

Prep Batch: 42784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 2	Solid	3010A	42734
140-20212-2	GS-AP-MW-6	Step 2	Solid	3010A	42734
140-20212-3	GS-AP-MW-7V	Step 2	Solid	3010A	42734
140-20212-4	GS-AP-MW-8	Step 2	Solid	3010A	42734
140-20212-5	GS-AP-MW-12V (135')	Step 2	Solid	3010A	42734
140-20212-6	GS-AP-MW-12V (167.6')	Step 2	Solid	3010A	42734
140-20212-7	GS-AP-MW-15	Step 2	Solid	3010A	42734
140-20212-8	GS-AP-MW-17V	Step 2	Solid	3010A	42734
140-20212-9	GS-AP-MW-18 (173.9')	Step 2	Solid	3010A	42734
140-20212-10	GS-AP-MW-18 (177')	Step 2	Solid	3010A	42734
140-20212-11	GS-AP-MW-21	Step 2	Solid	3010A	42734
140-20212-12	GS-AP-MW-23H	Step 2	Solid	3010A	42734
MB 140-42734/16-B ^3	Method Blank	Step 2	Solid	3010A	42734
LCS 140-42734/17-B ^5	Lab Control Sample	Step 2	Solid	3010A	42734
LCSD 140-42734/18-B ^5	Lab Control Sample Dup	Step 2	Solid	3010A	42734
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 2	Solid	3010A	42734

SEP Batch: 42785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 3	Solid	Non-Crystalline	
140-20212-2	GS-AP-MW-6	Step 3	Solid	Non-Crystalline	
140-20212-3	GS-AP-MW-7V	Step 3	Solid	Non-Crystalline	
140-20212-4	GS-AP-MW-8	Step 3	Solid	Non-Crystalline	
140-20212-5	GS-AP-MW-12V (135')	Step 3	Solid	Non-Crystalline	
140-20212-6	GS-AP-MW-12V (167.6')	Step 3	Solid	Non-Crystalline	
140-20212-7	GS-AP-MW-15	Step 3	Solid	Non-Crystalline	

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

SEP Batch: 42785 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-8	GS-AP-MW-17V	Step 3	Solid	Non-Crystalline	
140-20212-9	GS-AP-MW-18 (173.9')	Step 3	Solid	Non-Crystalline	
140-20212-10	GS-AP-MW-18 (177')	Step 3	Solid	Non-Crystalline	
140-20212-11	GS-AP-MW-21	Step 3	Solid	Non-Crystalline	
140-20212-12	GS-AP-MW-23H	Step 3	Solid	Non-Crystalline	
MB 140-42785/16-B	Method Blank	Step 3	Solid	Non-Crystalline	
LCS 140-42785/17-B	Lab Control Sample	Step 3	Solid	Non-Crystalline	
LCSD 140-42785/18-B	Lab Control Sample Dup	Step 3	Solid	Non-Crystalline	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 3	Solid	Non-Crystalline	

Prep Batch: 42838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 3	Solid	3010A	42785
140-20212-2	GS-AP-MW-6	Step 3	Solid	3010A	42785
140-20212-3	GS-AP-MW-7V	Step 3	Solid	3010A	42785
140-20212-4	GS-AP-MW-8	Step 3	Solid	3010A	42785
140-20212-5	GS-AP-MW-12V (135')	Step 3	Solid	3010A	42785
140-20212-6	GS-AP-MW-12V (167.6')	Step 3	Solid	3010A	42785
140-20212-7	GS-AP-MW-15	Step 3	Solid	3010A	42785
140-20212-8	GS-AP-MW-17V	Step 3	Solid	3010A	42785
140-20212-9	GS-AP-MW-18 (173.9')	Step 3	Solid	3010A	42785
140-20212-10	GS-AP-MW-18 (177')	Step 3	Solid	3010A	42785
140-20212-11	GS-AP-MW-21	Step 3	Solid	3010A	42785
140-20212-12	GS-AP-MW-23H	Step 3	Solid	3010A	42785
MB 140-42785/16-B	Method Blank	Step 3	Solid	3010A	42785
LCS 140-42785/17-B	Lab Control Sample	Step 3	Solid	3010A	42785
LCSD 140-42785/18-B	Lab Control Sample Dup	Step 3	Solid	3010A	42785
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 3	Solid	3010A	42785

SEP Batch: 42839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 4	Solid	Metal Hydroxide	
140-20212-2	GS-AP-MW-6	Step 4	Solid	Metal Hydroxide	
140-20212-3	GS-AP-MW-7V	Step 4	Solid	Metal Hydroxide	
140-20212-4	GS-AP-MW-8	Step 4	Solid	Metal Hydroxide	
140-20212-5	GS-AP-MW-12V (135')	Step 4	Solid	Metal Hydroxide	
140-20212-6	GS-AP-MW-12V (167.6')	Step 4	Solid	Metal Hydroxide	
140-20212-7	GS-AP-MW-15	Step 4	Solid	Metal Hydroxide	
140-20212-8	GS-AP-MW-17V	Step 4	Solid	Metal Hydroxide	
140-20212-9	GS-AP-MW-18 (173.9')	Step 4	Solid	Metal Hydroxide	
140-20212-10	GS-AP-MW-18 (177')	Step 4	Solid	Metal Hydroxide	
140-20212-11	GS-AP-MW-21	Step 4	Solid	Metal Hydroxide	
140-20212-12	GS-AP-MW-23H	Step 4	Solid	Metal Hydroxide	
MB 140-42839/16-B	Method Blank	Step 4	Solid	Metal Hydroxide	
LCS 140-42839/17-B	Lab Control Sample	Step 4	Solid	Metal Hydroxide	
LCSD 140-42839/18-B	Lab Control Sample Dup	Step 4	Solid	Metal Hydroxide	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 4	Solid	Metal Hydroxide	

Prep Batch: 42879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 4	Solid	3010A	42839

QC Association Summary

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

Prep Batch: 42879 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-2	GS-AP-MW-6	Step 4	Solid	3010A	42839
140-20212-3	GS-AP-MW-7V	Step 4	Solid	3010A	42839
140-20212-4	GS-AP-MW-8	Step 4	Solid	3010A	42839
140-20212-5	GS-AP-MW-12V (135')	Step 4	Solid	3010A	42839
140-20212-6	GS-AP-MW-12V (167.6')	Step 4	Solid	3010A	42839
140-20212-7	GS-AP-MW-15	Step 4	Solid	3010A	42839
140-20212-8	GS-AP-MW-17V	Step 4	Solid	3010A	42839
140-20212-9	GS-AP-MW-18 (173.9')	Step 4	Solid	3010A	42839
140-20212-10	GS-AP-MW-18 (177')	Step 4	Solid	3010A	42839
140-20212-11	GS-AP-MW-21	Step 4	Solid	3010A	42839
140-20212-12	GS-AP-MW-23H	Step 4	Solid	3010A	42839
MB 140-42839/16-B	Method Blank	Step 4	Solid	3010A	42839
LCS 140-42839/17-B	Lab Control Sample	Step 4	Solid	3010A	42839
LCSD 140-42839/18-B	Lab Control Sample Dup	Step 4	Solid	3010A	42839
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 4	Solid	3010A	42839

SEP Batch: 42880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 5	Solid	Organic-Bound	
140-20212-2	GS-AP-MW-6	Step 5	Solid	Organic-Bound	
140-20212-3	GS-AP-MW-7V	Step 5	Solid	Organic-Bound	
140-20212-4	GS-AP-MW-8	Step 5	Solid	Organic-Bound	
140-20212-5	GS-AP-MW-12V (135')	Step 5	Solid	Organic-Bound	
140-20212-6	GS-AP-MW-12V (167.6')	Step 5	Solid	Organic-Bound	
140-20212-7	GS-AP-MW-15	Step 5	Solid	Organic-Bound	
140-20212-8	GS-AP-MW-17V	Step 5	Solid	Organic-Bound	
140-20212-9	GS-AP-MW-18 (173.9')	Step 5	Solid	Organic-Bound	
140-20212-10	GS-AP-MW-18 (177')	Step 5	Solid	Organic-Bound	
140-20212-11	GS-AP-MW-21	Step 5	Solid	Organic-Bound	
140-20212-12	GS-AP-MW-23H	Step 5	Solid	Organic-Bound	
MB 140-42880/16-B ^5	Method Blank	Step 5	Solid	Organic-Bound	
LCS 140-42880/17-B ^5	Lab Control Sample	Step 5	Solid	Organic-Bound	
LCSD 140-42880/18-B ^5	Lab Control Sample Dup	Step 5	Solid	Organic-Bound	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 5	Solid	Organic-Bound	

Prep Batch: 42915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 5	Solid	3010A	42880
140-20212-2	GS-AP-MW-6	Step 5	Solid	3010A	42880
140-20212-3	GS-AP-MW-7V	Step 5	Solid	3010A	42880
140-20212-4	GS-AP-MW-8	Step 5	Solid	3010A	42880
140-20212-5	GS-AP-MW-12V (135')	Step 5	Solid	3010A	42880
140-20212-6	GS-AP-MW-12V (167.6')	Step 5	Solid	3010A	42880
140-20212-7	GS-AP-MW-15	Step 5	Solid	3010A	42880
140-20212-8	GS-AP-MW-17V	Step 5	Solid	3010A	42880
140-20212-9	GS-AP-MW-18 (173.9')	Step 5	Solid	3010A	42880
140-20212-10	GS-AP-MW-18 (177')	Step 5	Solid	3010A	42880
140-20212-11	GS-AP-MW-21	Step 5	Solid	3010A	42880
140-20212-12	GS-AP-MW-23H	Step 5	Solid	3010A	42880
MB 140-42880/16-B ^5	Method Blank	Step 5	Solid	3010A	42880
LCS 140-42880/17-B ^5	Lab Control Sample	Step 5	Solid	3010A	42880

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

Prep Batch: 42915 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 140-42880/18-B ^5	Lab Control Sample Dup	Step 5	Solid	3010A	42880
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 5	Solid	3010A	42880

SEP Batch: 42916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 6	Solid	Acid/Sulfide	
140-20212-2	GS-AP-MW-6	Step 6	Solid	Acid/Sulfide	
140-20212-3	GS-AP-MW-7V	Step 6	Solid	Acid/Sulfide	
140-20212-4	GS-AP-MW-8	Step 6	Solid	Acid/Sulfide	
140-20212-5	GS-AP-MW-12V (135')	Step 6	Solid	Acid/Sulfide	
140-20212-6	GS-AP-MW-12V (167.6')	Step 6	Solid	Acid/Sulfide	
140-20212-7	GS-AP-MW-15	Step 6	Solid	Acid/Sulfide	
140-20212-8	GS-AP-MW-17V	Step 6	Solid	Acid/Sulfide	
140-20212-9	GS-AP-MW-18 (173.9')	Step 6	Solid	Acid/Sulfide	
140-20212-10	GS-AP-MW-18 (177')	Step 6	Solid	Acid/Sulfide	
140-20212-11	GS-AP-MW-21	Step 6	Solid	Acid/Sulfide	
140-20212-12	GS-AP-MW-23H	Step 6	Solid	Acid/Sulfide	
MB 140-42916/16-A	Method Blank	Step 6	Solid	Acid/Sulfide	
LCS 140-42916/17-A	Lab Control Sample	Step 6	Solid	Acid/Sulfide	
LCSD 140-42916/18-A	Lab Control Sample Dup	Step 6	Solid	Acid/Sulfide	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 6	Solid	Acid/Sulfide	

Prep Batch: 42963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 7	Solid	Residual	
140-20212-2	GS-AP-MW-6	Step 7	Solid	Residual	
140-20212-3	GS-AP-MW-7V	Step 7	Solid	Residual	
140-20212-4	GS-AP-MW-8	Step 7	Solid	Residual	
140-20212-5	GS-AP-MW-12V (135')	Step 7	Solid	Residual	
140-20212-6	GS-AP-MW-12V (167.6')	Step 7	Solid	Residual	
140-20212-7	GS-AP-MW-15	Step 7	Solid	Residual	
140-20212-8	GS-AP-MW-17V	Step 7	Solid	Residual	
140-20212-9	GS-AP-MW-18 (173.9')	Step 7	Solid	Residual	
140-20212-10	GS-AP-MW-18 (177')	Step 7	Solid	Residual	
140-20212-11	GS-AP-MW-21	Step 7	Solid	Residual	
140-20212-12	GS-AP-MW-23H	Step 7	Solid	Residual	
MB 140-42963/16-A	Method Blank	Step 7	Solid	Residual	
LCS 140-42963/17-A	Lab Control Sample	Step 7	Solid	Residual	
LCSD 140-42963/18-A	Lab Control Sample Dup	Step 7	Solid	Residual	
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 7	Solid	Residual	

Analysis Batch: 42965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 1	Solid	6010B SEP	42733
140-20212-1	GS-AP-MW-2	Step 2	Solid	6010B SEP	42784
140-20212-2	GS-AP-MW-6	Step 1	Solid	6010B SEP	42733
140-20212-2	GS-AP-MW-6	Step 2	Solid	6010B SEP	42784
140-20212-3	GS-AP-MW-7V	Step 1	Solid	6010B SEP	42733
140-20212-3	GS-AP-MW-7V	Step 2	Solid	6010B SEP	42784
140-20212-4	GS-AP-MW-8	Step 1	Solid	6010B SEP	42733
140-20212-4	GS-AP-MW-8	Step 2	Solid	6010B SEP	42784

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

Analysis Batch: 42965 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-5	GS-AP-MW-12V (135')	Step 1	Solid	6010B SEP	42733
140-20212-5	GS-AP-MW-12V (135')	Step 2	Solid	6010B SEP	42784
140-20212-6	GS-AP-MW-12V (167.6')	Step 1	Solid	6010B SEP	42733
140-20212-6	GS-AP-MW-12V (167.6')	Step 2	Solid	6010B SEP	42784
140-20212-7	GS-AP-MW-15	Step 1	Solid	6010B SEP	42733
140-20212-7	GS-AP-MW-15	Step 2	Solid	6010B SEP	42784
140-20212-8	GS-AP-MW-17V	Step 1	Solid	6010B SEP	42733
140-20212-8	GS-AP-MW-17V	Step 2	Solid	6010B SEP	42784
140-20212-9	GS-AP-MW-18 (173.9')	Step 1	Solid	6010B SEP	42733
140-20212-9	GS-AP-MW-18 (173.9')	Step 2	Solid	6010B SEP	42784
140-20212-10	GS-AP-MW-18 (177')	Step 1	Solid	6010B SEP	42733
140-20212-10	GS-AP-MW-18 (177')	Step 2	Solid	6010B SEP	42784
140-20212-11	GS-AP-MW-21	Step 1	Solid	6010B SEP	42733
140-20212-11	GS-AP-MW-21	Step 2	Solid	6010B SEP	42784
140-20212-12	GS-AP-MW-23H	Step 1	Solid	6010B SEP	42733
140-20212-12	GS-AP-MW-23H	Step 2	Solid	6010B SEP	42784
MB 140-42663/16-B ^4	Method Blank	Step 1	Solid	6010B SEP	42733
MB 140-42734/16-B ^3	Method Blank	Step 2	Solid	6010B SEP	42784
LCS 140-42663/17-B ^5	Lab Control Sample	Step 1	Solid	6010B SEP	42733
LCS 140-42734/17-B ^5	Lab Control Sample	Step 2	Solid	6010B SEP	42784
LCSD 140-42663/18-B ^5	Lab Control Sample Dup	Step 1	Solid	6010B SEP	42733
LCSD 140-42734/18-B ^5	Lab Control Sample Dup	Step 2	Solid	6010B SEP	42784
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 1	Solid	6010B SEP	42733
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 2	Solid	6010B SEP	42784

Analysis Batch: 42992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 3	Solid	6010B SEP	42838
140-20212-1	GS-AP-MW-2	Step 4	Solid	6010B SEP	42879
140-20212-2	GS-AP-MW-6	Step 3	Solid	6010B SEP	42838
140-20212-2	GS-AP-MW-6	Step 4	Solid	6010B SEP	42879
140-20212-3	GS-AP-MW-7V	Step 3	Solid	6010B SEP	42838
140-20212-3	GS-AP-MW-7V	Step 4	Solid	6010B SEP	42879
140-20212-4	GS-AP-MW-8	Step 3	Solid	6010B SEP	42838
140-20212-4	GS-AP-MW-8	Step 4	Solid	6010B SEP	42879
140-20212-5	GS-AP-MW-12V (135')	Step 3	Solid	6010B SEP	42838
140-20212-5	GS-AP-MW-12V (135')	Step 4	Solid	6010B SEP	42879
140-20212-6	GS-AP-MW-12V (167.6')	Step 3	Solid	6010B SEP	42838
140-20212-6	GS-AP-MW-12V (167.6')	Step 4	Solid	6010B SEP	42879
140-20212-7	GS-AP-MW-15	Step 3	Solid	6010B SEP	42838
140-20212-7	GS-AP-MW-15	Step 4	Solid	6010B SEP	42879
140-20212-8	GS-AP-MW-17V	Step 3	Solid	6010B SEP	42838
140-20212-8	GS-AP-MW-17V	Step 4	Solid	6010B SEP	42879
140-20212-9	GS-AP-MW-18 (173.9')	Step 3	Solid	6010B SEP	42838
140-20212-9	GS-AP-MW-18 (173.9')	Step 4	Solid	6010B SEP	42879
140-20212-10	GS-AP-MW-18 (177')	Step 3	Solid	6010B SEP	42838
140-20212-10	GS-AP-MW-18 (177')	Step 4	Solid	6010B SEP	42879
140-20212-11	GS-AP-MW-21	Step 3	Solid	6010B SEP	42838
140-20212-11	GS-AP-MW-21	Step 4	Solid	6010B SEP	42879
140-20212-12	GS-AP-MW-23H	Step 3	Solid	6010B SEP	42838
140-20212-12	GS-AP-MW-23H	Step 4	Solid	6010B SEP	42879

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

Analysis Batch: 42992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-42785/16-B	Method Blank	Step 3	Solid	6010B SEP	42838
MB 140-42839/16-B	Method Blank	Step 4	Solid	6010B SEP	42879
LCS 140-42785/17-B	Lab Control Sample	Step 3	Solid	6010B SEP	42838
LCS 140-42839/17-B	Lab Control Sample	Step 4	Solid	6010B SEP	42879
LCSD 140-42785/18-B	Lab Control Sample Dup	Step 3	Solid	6010B SEP	42838
LCSD 140-42839/18-B	Lab Control Sample Dup	Step 4	Solid	6010B SEP	42879
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 3	Solid	6010B SEP	42838
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 4	Solid	6010B SEP	42879

Analysis Batch: 43029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 5	Solid	6010B SEP	42915
140-20212-1	GS-AP-MW-2	Step 6	Solid	6010B SEP	42916
140-20212-2	GS-AP-MW-6	Step 5	Solid	6010B SEP	42915
140-20212-2	GS-AP-MW-6	Step 6	Solid	6010B SEP	42916
140-20212-3	GS-AP-MW-7V	Step 5	Solid	6010B SEP	42915
140-20212-3	GS-AP-MW-7V	Step 6	Solid	6010B SEP	42916
140-20212-4	GS-AP-MW-8	Step 5	Solid	6010B SEP	42915
140-20212-4	GS-AP-MW-8	Step 6	Solid	6010B SEP	42916
140-20212-5	GS-AP-MW-12V (135')	Step 5	Solid	6010B SEP	42915
140-20212-5	GS-AP-MW-12V (135')	Step 6	Solid	6010B SEP	42916
140-20212-6	GS-AP-MW-12V (167.6')	Step 5	Solid	6010B SEP	42915
140-20212-6	GS-AP-MW-12V (167.6')	Step 6	Solid	6010B SEP	42916
140-20212-7	GS-AP-MW-15	Step 5	Solid	6010B SEP	42915
140-20212-7	GS-AP-MW-15	Step 6	Solid	6010B SEP	42916
140-20212-7	GS-AP-MW-15	Step 6	Solid	6010B SEP	42916
140-20212-8	GS-AP-MW-17V	Step 5	Solid	6010B SEP	42915
140-20212-8	GS-AP-MW-17V	Step 6	Solid	6010B SEP	42916
140-20212-9	GS-AP-MW-18 (173.9')	Step 5	Solid	6010B SEP	42915
140-20212-9	GS-AP-MW-18 (173.9')	Step 6	Solid	6010B SEP	42916
140-20212-10	GS-AP-MW-18 (177')	Step 5	Solid	6010B SEP	42915
140-20212-10	GS-AP-MW-18 (177')	Step 6	Solid	6010B SEP	42916
140-20212-11	GS-AP-MW-21	Step 5	Solid	6010B SEP	42915
140-20212-11	GS-AP-MW-21	Step 6	Solid	6010B SEP	42916
140-20212-12	GS-AP-MW-23H	Step 5	Solid	6010B SEP	42915
140-20212-12	GS-AP-MW-23H	Step 6	Solid	6010B SEP	42916
MB 140-42880/16-B ^5	Method Blank	Step 5	Solid	6010B SEP	42915
MB 140-42916/16-A	Method Blank	Step 6	Solid	6010B SEP	42916
LCS 140-42880/17-B ^5	Lab Control Sample	Step 5	Solid	6010B SEP	42915
LCS 140-42916/17-A	Lab Control Sample	Step 6	Solid	6010B SEP	42916
LCSD 140-42880/18-B ^5	Lab Control Sample Dup	Step 5	Solid	6010B SEP	42915
LCSD 140-42916/18-A	Lab Control Sample Dup	Step 6	Solid	6010B SEP	42916
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 5	Solid	6010B SEP	42915
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 6	Solid	6010B SEP	42916

Analysis Batch: 43129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Step 7	Solid	6010B SEP	42963
140-20212-1	GS-AP-MW-2	Step 7	Solid	6010B SEP	42963
140-20212-1	GS-AP-MW-2	Step 7	Solid	6010B SEP	42963
140-20212-2	GS-AP-MW-6	Step 7	Solid	6010B SEP	42963

QC Association Summary

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

Analysis Batch: 43129 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-2	GS-AP-MW-6	Step 7	Solid	6010B SEP	42963
140-20212-2	GS-AP-MW-6	Step 7	Solid	6010B SEP	42963
140-20212-3	GS-AP-MW-7V	Step 7	Solid	6010B SEP	42963
140-20212-3	GS-AP-MW-7V	Step 7	Solid	6010B SEP	42963
140-20212-3	GS-AP-MW-7V	Step 7	Solid	6010B SEP	42963
140-20212-4	GS-AP-MW-8	Step 7	Solid	6010B SEP	42963
140-20212-4	GS-AP-MW-8	Step 7	Solid	6010B SEP	42963
140-20212-5	GS-AP-MW-12V (135')	Step 7	Solid	6010B SEP	42963
140-20212-5	GS-AP-MW-12V (135')	Step 7	Solid	6010B SEP	42963
140-20212-5	GS-AP-MW-12V (135')	Step 7	Solid	6010B SEP	42963
140-20212-6	GS-AP-MW-12V (167.6')	Step 7	Solid	6010B SEP	42963
140-20212-6	GS-AP-MW-12V (167.6')	Step 7	Solid	6010B SEP	42963
140-20212-6	GS-AP-MW-12V (167.6')	Step 7	Solid	6010B SEP	42963
140-20212-7	GS-AP-MW-15	Step 7	Solid	6010B SEP	42963
140-20212-7	GS-AP-MW-15	Step 7	Solid	6010B SEP	42963
140-20212-7	GS-AP-MW-15	Step 7	Solid	6010B SEP	42963
140-20212-8	GS-AP-MW-17V	Step 7	Solid	6010B SEP	42963
140-20212-8	GS-AP-MW-17V	Step 7	Solid	6010B SEP	42963
140-20212-8	GS-AP-MW-17V	Step 7	Solid	6010B SEP	42963
140-20212-9	GS-AP-MW-18 (173.9')	Step 7	Solid	6010B SEP	42963
140-20212-9	GS-AP-MW-18 (173.9')	Step 7	Solid	6010B SEP	42963
140-20212-9	GS-AP-MW-18 (173.9')	Step 7	Solid	6010B SEP	42963
140-20212-10	GS-AP-MW-18 (177')	Step 7	Solid	6010B SEP	42963
140-20212-10	GS-AP-MW-18 (177')	Step 7	Solid	6010B SEP	42963
140-20212-10	GS-AP-MW-18 (177')	Step 7	Solid	6010B SEP	42963
140-20212-11	GS-AP-MW-21	Step 7	Solid	6010B SEP	42963
140-20212-11	GS-AP-MW-21	Step 7	Solid	6010B SEP	42963
140-20212-11	GS-AP-MW-21	Step 7	Solid	6010B SEP	42963
140-20212-12	GS-AP-MW-23H	Step 7	Solid	6010B SEP	42963
140-20212-12	GS-AP-MW-23H	Step 7	Solid	6010B SEP	42963
140-20212-12	GS-AP-MW-23H	Step 7	Solid	6010B SEP	42963
MB 140-42963/16-A	Method Blank	Step 7	Solid	6010B SEP	42963
LCS 140-42963/17-A	Lab Control Sample	Step 7	Solid	6010B SEP	42963
LCS 140-42963/18-A	Lab Control Sample Dup	Step 7	Solid	6010B SEP	42963
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 7	Solid	6010B SEP	42963
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 7	Solid	6010B SEP	42963
140-20212-6 DU	GS-AP-MW-12V (167.6')	Step 7	Solid	6010B SEP	42963

Analysis Batch: 43169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Total/NA	Solid	6010B	42659
140-20212-1	GS-AP-MW-2	Total/NA	Solid	6010B	42659
140-20212-1	GS-AP-MW-2	Total/NA	Solid	6010B	42659
140-20212-2	GS-AP-MW-6	Total/NA	Solid	6010B	42659
140-20212-2	GS-AP-MW-6	Total/NA	Solid	6010B	42659
140-20212-2	GS-AP-MW-6	Total/NA	Solid	6010B	42659
140-20212-3	GS-AP-MW-7V	Total/NA	Solid	6010B	42659
140-20212-3	GS-AP-MW-7V	Total/NA	Solid	6010B	42659
140-20212-3	GS-AP-MW-7V	Total/NA	Solid	6010B	42659
140-20212-4	GS-AP-MW-8	Total/NA	Solid	6010B	42659
140-20212-4	GS-AP-MW-8	Total/NA	Solid	6010B	42659

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Metals (Continued)

Analysis Batch: 43169 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-5	GS-AP-MW-12V (135')	Total/NA	Solid	6010B	42659
140-20212-5	GS-AP-MW-12V (135')	Total/NA	Solid	6010B	42659
140-20212-5	GS-AP-MW-12V (135')	Total/NA	Solid	6010B	42659
140-20212-6	GS-AP-MW-12V (167.6')	Total/NA	Solid	6010B	42659
140-20212-6	GS-AP-MW-12V (167.6')	Total/NA	Solid	6010B	42659
140-20212-6	GS-AP-MW-12V (167.6')	Total/NA	Solid	6010B	42659
140-20212-7	GS-AP-MW-15	Total/NA	Solid	6010B	42659
140-20212-7	GS-AP-MW-15	Total/NA	Solid	6010B	42659
140-20212-7	GS-AP-MW-15	Total/NA	Solid	6010B	42659
140-20212-8	GS-AP-MW-17V	Total/NA	Solid	6010B	42659
140-20212-8	GS-AP-MW-17V	Total/NA	Solid	6010B	42659
140-20212-8	GS-AP-MW-17V	Total/NA	Solid	6010B	42659
140-20212-9	GS-AP-MW-18 (173.9')	Total/NA	Solid	6010B	42659
140-20212-9	GS-AP-MW-18 (173.9')	Total/NA	Solid	6010B	42659
140-20212-9	GS-AP-MW-18 (173.9')	Total/NA	Solid	6010B	42659
140-20212-10	GS-AP-MW-18 (177')	Total/NA	Solid	6010B	42659
140-20212-10	GS-AP-MW-18 (177')	Total/NA	Solid	6010B	42659
140-20212-10	GS-AP-MW-18 (177')	Total/NA	Solid	6010B	42659
140-20212-11	GS-AP-MW-21	Total/NA	Solid	6010B	42659
140-20212-11	GS-AP-MW-21	Total/NA	Solid	6010B	42659
140-20212-11	GS-AP-MW-21	Total/NA	Solid	6010B	42659
140-20212-12	GS-AP-MW-23H	Total/NA	Solid	6010B	42659
140-20212-12	GS-AP-MW-23H	Total/NA	Solid	6010B	42659
140-20212-12	GS-AP-MW-23H	Total/NA	Solid	6010B	42659
MB 140-42659/16-A	Method Blank	Total/NA	Solid	6010B	42659
LCS 140-42659/17-A	Lab Control Sample	Total/NA	Solid	6010B	42659
LCSD 140-42659/18-A	Lab Control Sample Dup	Total/NA	Solid	6010B	42659
140-20212-6 DU	GS-AP-MW-12V (167.6')	Total/NA	Solid	6010B	42659
140-20212-6 DU	GS-AP-MW-12V (167.6')	Total/NA	Solid	6010B	42659
140-20212-6 DU	GS-AP-MW-12V (167.6')	Total/NA	Solid	6010B	42659

Analysis Batch: 43213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-2	GS-AP-MW-6	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-3	GS-AP-MW-7V	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-4	GS-AP-MW-8	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-5	GS-AP-MW-12V (135')	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-6	GS-AP-MW-12V (167.6')	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-7	GS-AP-MW-15	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-8	GS-AP-MW-17V	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-9	GS-AP-MW-18 (173.9')	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-10	GS-AP-MW-18 (177')	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-11	GS-AP-MW-21	Sum of Steps 1-7	Solid	6010B SEP	
140-20212-12	GS-AP-MW-23H	Sum of Steps 1-7	Solid	6010B SEP	

General Chemistry

Analysis Batch: 42629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Total/NA	Solid	Moisture	

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

General Chemistry (Continued)

Analysis Batch: 42629 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-2	GS-AP-MW-6	Total/NA	Solid	Moisture	
140-20212-3	GS-AP-MW-7V	Total/NA	Solid	Moisture	
140-20212-4	GS-AP-MW-8	Total/NA	Solid	Moisture	
140-20212-5	GS-AP-MW-12V (135')	Total/NA	Solid	Moisture	
140-20212-6	GS-AP-MW-12V (167.6')	Total/NA	Solid	Moisture	
140-20212-7	GS-AP-MW-15	Total/NA	Solid	Moisture	
140-20212-8	GS-AP-MW-17V	Total/NA	Solid	Moisture	
140-20212-9	GS-AP-MW-18 (173.9')	Total/NA	Solid	Moisture	
140-20212-10	GS-AP-MW-18 (177')	Total/NA	Solid	Moisture	
140-20212-11	GS-AP-MW-21	Total/NA	Solid	Moisture	
140-20212-12	GS-AP-MW-23H	Total/NA	Solid	Moisture	
140-20212-1 DU	GS-AP-MW-2	Total/NA	Solid	Moisture	

Organic Prep

Analysis Batch: 449860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20212-1	GS-AP-MW-2	Total/NA	Solid	Part Size Red	
140-20212-2	GS-AP-MW-6	Total/NA	Solid	Part Size Red	
140-20212-3	GS-AP-MW-7V	Total/NA	Solid	Part Size Red	
140-20212-4	GS-AP-MW-8	Total/NA	Solid	Part Size Red	
140-20212-5	GS-AP-MW-12V (135')	Total/NA	Solid	Part Size Red	
140-20212-6	GS-AP-MW-12V (167.6')	Total/NA	Solid	Part Size Red	
140-20212-7	GS-AP-MW-15	Total/NA	Solid	Part Size Red	
140-20212-8	GS-AP-MW-17V	Total/NA	Solid	Part Size Red	
140-20212-9	GS-AP-MW-18 (173.9')	Total/NA	Solid	Part Size Red	
140-20212-10	GS-AP-MW-18 (177')	Total/NA	Solid	Part Size Red	
140-20212-11	GS-AP-MW-21	Total/NA	Solid	Part Size Red	
140-20212-12	GS-AP-MW-23H	Total/NA	Solid	Part Size Red	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-2

Lab Sample ID: 140-20212-1

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
	Instrument ID: NOEQUIP									

Client Sample ID: GS-AP-MW-2

Lab Sample ID: 140-20212-1

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 12:40	KNC	TAL KNX
	Instrument ID: DUO									
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:13	KNC	TAL KNX
	Instrument ID: DUO									
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 15:56	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 13:45	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 15:35	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 11:53	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 13:43	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:25	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:16	KNC	TAL KNX
	Instrument ID: DUO									

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-2

Lab Sample ID: 140-20212-1

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 11:21	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 12:55	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 14:34	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-6

Lab Sample ID: 140-20212-2

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-6

Lab Sample ID: 140-20212-2

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 98.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 12:45	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:19	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:01	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 13:49	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 15:39	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-6

Lab Sample ID: 140-20212-2

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 98.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 11:58	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 13:47	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:30	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:21	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 11:26	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:00	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 14:38	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-7V

Lab Sample ID: 140-20212-3

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-7V

Lab Sample ID: 140-20212-3

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 12:49	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-7V

Lab Sample ID: 140-20212-3

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:24	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:06	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 13:54	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 15:44	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:03	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 13:52	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:34	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:26	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 11:31	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:05	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 14:43	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-8

Lab Sample ID: 140-20212-4

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-8

Lab Sample ID: 140-20212-4

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-8

Lab Sample ID: 140-20212-4

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 12:54	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:29	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 13:59	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 15:49	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:08	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 13:57	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:39	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:31	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 11:35	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:10	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (135')

Lab Sample ID: 140-20212-5

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
	Instrument ID: NOEQUIP									

Client Sample ID: GS-AP-MW-12V (135')

Lab Sample ID: 140-20212-5

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 12:58	KNC	TAL KNX
	Instrument ID: DUO									
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:35	KNC	TAL KNX
	Instrument ID: DUO									
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:11	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:04	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 15:54	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:13	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:02	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:44	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:36	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (135')
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-5
Matrix: Solid
Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 11:40	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:15	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 14:53	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-12V (167.6')
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-12V (167.6')
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-6
Matrix: Solid
Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:03	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:40	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:16	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:08	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 15:59	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (167.6')

Lab Sample ID: 140-20212-6

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:17	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:07	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:49	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:41	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 11:45	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:20	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 14:58	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-15

Lab Sample ID: 140-20212-7

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-15

Lab Sample ID: 140-20212-7

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:22	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-15

Lab Sample ID: 140-20212-7

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:50	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:26	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:32	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 16:23	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:41	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:30	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 12:13	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 14:05	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		2			43029	09/23/20 14:52	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 12:04	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:30	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 15:22	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-17V

Lab Sample ID: 140-20212-8

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
	Instrument ID: NOEQUIP									

Client Sample ID: GS-AP-MW-17V

Lab Sample ID: 140-20212-8

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:27	KNC	TAL KNX
	Instrument ID: DUO									
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:55	KNC	TAL KNX
	Instrument ID: DUO									
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:31	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:37	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 16:28	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:46	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:35	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 12:18	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 14:10	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-17V

Date Collected: 08/25/20 00:00

Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-8

Matrix: Solid

Percent Solids: 99.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 12:08	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:35	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 15:26	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-18 (173.9')

Date Collected: 08/25/20 00:00

Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-18 (173.9')

Date Collected: 08/25/20 00:00

Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-9

Matrix: Solid

Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:31	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 15:15	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:36	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:42	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 16:33	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-18 (173.9')

Lab Sample ID: 140-20212-9

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:51	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:40	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 12:23	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 14:15	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 12:13	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:55	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 15:31	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-18 (177')

Lab Sample ID: 140-20212-10

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-18 (177')

Lab Sample ID: 140-20212-10

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 70.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:36	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-18 (177')

Lab Sample ID: 140-20212-10

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 70.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 15:20	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:56	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:47	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 16:38	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:55	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:45	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 12:28	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 14:20	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 12:18	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 14:00	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 15:36	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-21

Lab Sample ID: 140-20212-11

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-21
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-21
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-11
Matrix: Solid
Percent Solids: 99.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:40	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 15:25	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 17:01	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:51	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 16:42	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 13:00	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:49	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 12:33	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 14:26	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 12:22	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-21
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-11
Matrix: Solid
Percent Solids: 99.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 14:04	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 15:41	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-23H
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			43213	10/01/20 09:43	DKW	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	Part Size Red		1			449860	09/02/20 14:00	DRJ	TAL CAN
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-23H
Date Collected: 08/25/20 00:00
Date Received: 08/31/20 09:15

Lab Sample ID: 140-20212-12
Matrix: Solid
Percent Solids: 75.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:45	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 15:30	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 17:06	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:56	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 16:47	KNC	TAL KNX
Instrument ID: DUO										
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 13:05	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-23H

Lab Sample ID: 140-20212-12

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 75.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:54	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 12:38	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 14:30	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 12:27	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 14:10	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 15:46	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42659/16-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 12:21	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42663/16-B ^4

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 13:31	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42734/16-B ^3

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 15:20	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42785/16-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 11:39	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42839/16-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 13:29	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42880/16-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:10	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42916/16-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:02	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: Method Blank

Lab Sample ID: MB 140-42963/16-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 11:02	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42659/17-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 12:26	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42663/17-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			42965	09/21/20 13:35	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42734/17-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			42965	09/21/20 15:25	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42785/17-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 11:44	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42839/17-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 13:34	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42880/17-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:15	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42916/17-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:07	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-42963/17-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 11:07	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42659/18-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 12:30	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42663/18-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			42965	09/21/20 13:40	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42734/18-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			42965	09/21/20 15:30	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42785/18-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 11:49	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42839/18-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 13:38	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42880/18-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 11:20	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42916/18-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 13:12	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-42963/18-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 11:12	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: GS-AP-MW-2

Lab Sample ID: 140-20212-1 DU

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42629	09/11/20 08:12	BKD	TAL KNX
Instrument ID: NOEQUIP										

Client Sample ID: GS-AP-MW-12V (167.6')

Lab Sample ID: 140-20212-6 DU

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			43169	09/29/20 13:17	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			43169	09/29/20 14:45	KNC	TAL KNX
Instrument ID: DUO										
Total/NA	Prep	Total			1.000 g	50 mL	42659	09/14/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			43169	09/29/20 16:21	KNC	TAL KNX
Instrument ID: DUO										
Step 1	SEP	Exchangeable			5.000 g	25 mL	42663	09/14/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	42733	09/15/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			42965	09/21/20 14:28	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	42734	09/15/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	42784	09/16/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			42965	09/21/20 16:18	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Client Sample ID: GS-AP-MW-12V (167.6')

Lab Sample ID: 140-20212-6 DU

Date Collected: 08/25/20 00:00

Matrix: Solid

Date Received: 08/31/20 09:15

Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	42785	09/16/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	42838	09/17/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			42992	09/22/20 12:36	KNC	TAL KNX
Instrument ID: DUO										
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	42839	09/17/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	42879	09/18/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			42992	09/22/20 14:26	KNC	TAL KNX
Instrument ID: DUO										
Step 5	SEP	Organic-Bound			5.000 g	75 mL	42880	09/18/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	42915	09/21/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			43029	09/23/20 12:08	KNC	TAL KNX
Instrument ID: DUO										
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	42916	09/21/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			43029	09/23/20 14:00	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			43129	09/28/20 11:59	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			43129	09/28/20 13:25	KNC	TAL KNX
Instrument ID: DUO										
Step 7	Prep	Residual			1.000 g	50 mL	42963	09/22/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			43129	09/28/20 15:02	KNC	TAL KNX
Instrument ID: DUO										

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Laboratory: Eurofins TestAmerica, Knoxville

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-22
ANAB	Dept. of Energy	L2311.01	02-13-22
ANAB	ISO/IEC 17025	L2311	02-13-22
ANAB	ISO/IEC 17025	L2311	02-14-22
Arkansas DEQ	State	88-0688	06-17-21
California	State	2423	06-30-21
Colorado	State	TN00009	02-28-21
Connecticut	State	PH-0223	09-30-21
Florida	NELAP	E87177	07-01-21
Georgia (DW)	State	906	12-11-22
Hawaii	State	NA	12-11-21
Kansas	NELAP	E-10349	11-01-20
Kentucky (DW)	State	90101	01-01-21
Louisiana	NELAP	LA110001	12-31-12 *
Louisiana	NELAP	83979	06-30-21
Louisiana (DW)	State	LA019	12-31-20
Maryland	State	277	03-31-21
Michigan	State	9933	12-11-22
Nevada	State	TN00009	07-31-21
New Hampshire	NELAP	299919	01-17-21
New Jersey	NELAP	TN001	07-01-21
New York	NELAP	10781	03-31-21
North Carolina (DW)	State	21705	07-31-21
North Carolina (WW/SW)	State	64	12-31-20
Ohio VAP	State	CL0059	06-02-23
Oklahoma	State	9415	08-31-21
Oregon	NELAP	TNI0189	01-02-21
Pennsylvania	NELAP	68-00576	12-31-20
Tennessee	State	02014	12-11-22
Texas	NELAP	T104704380-18-12	08-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-19-00236	08-20-22
Utah	NELAP	TN00009	07-31-21
Virginia	NELAP	460176	09-14-21
Washington	State	C593	01-19-21
West Virginia (DW)	State	9955C	01-01-21
West Virginia DEP	State	345	05-01-21
Wisconsin	State	998044300	08-31-21

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

Accreditation/Certification Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Laboratory: Eurofins TestAmerica, Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-20 *
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

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

Method Summary

Client: Golder Associates Inc.
 Project/Site: Plant Gorgas - Logan Martin Dam

Job ID: 140-20212-1

Method	Method Description	Protocol	Laboratory
6010B	SEP Metals (ICP) - Total	SW846	TAL KNX
6010B SEP	SEP Metals (ICP)	SW846	TAL KNX
Moisture	Percent Moisture	EPA	TAL KNX
Part Size Red	Particle Size Reduction Preparation	None	TAL CAN
3010A	Preparation, Total Metals	SW846	TAL KNX
Acid/Sulfide	Sequential Extraction Procedure, Acid/Sulfide Fraction	TAL-KNOX	TAL KNX
Carbonate	Sequential Extraction Procedure, Carbonate Fraction	TAL-KNOX	TAL KNX
Exchangeable	Sequential Extraction Procedure, Exchangeable Fraction	TAL-KNOX	TAL KNX
Metal Hydroxide	Sequential Extraction Procedure, Metal Hydroxide Fraction	TAL-KNOX	TAL KNX
Non-Crystalline	Sequential Extraction Procedure, Non-crystalline Materials	TAL-KNOX	TAL KNX
Organic-Bound	Sequential Extraction Procedure, Organic Bound Fraction	TAL-KNOX	TAL KNX
Residual	Sequential Extraction Procedure, Residual Fraction	TAL-KNOX	TAL KNX
Total	Preparation, Total Material	TAL-KNOX	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

TAL-KNOX = TestAmerica Laboratories, Knoxville, Facility Standard Operating Procedure.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Chain of Custody Record

Project Manager: PJ Nolan
Email: pj.nolan@golder.com
Tel/Fax: +14258830777 x52646

Client Contact
Golder Associates Inc.
5170 Peachtree Rd Bldg 100 Suite 300
Atlanta, Georgia 30326
Phone (770) 496-189

Site: Logan Martin Dam
P O # 20146395

Project Name: Plant Goigas
Site: Logan Martin Dam
P O # 20146395

Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
TAT if different from Below
2 weeks
1 week
2 days
1 day

Site Contact: Ryan Henry
Lab Contact: Ryan Henry
Carrier: FedEx

Date: 8/26/2020
COC No.: 1 of 1 COCs

Sample Specific Notes:
CUSTOMARY SEALS INTACT
RECEIVED AMMOUNT AT 19.7°C
MSD 83120 (1.19)°C
1) 100% FEASIBLE
12.3.19.52.597 SO

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

Sample Specific Notes:

Sample Specific Notes:

Sample Specific Notes:

Sample Specific Notes:

Sample Specific Notes:

Sample Specific Notes:

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Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other N/A

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Special Instructions/QC Requirements & Comments: SEP Metals (Al, Fe, Li, Mn, As, Mo, Co)

Return to Client: Disposal by Lab: Archive for: _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

140-20212 Chain of Custody

Received by: _____ Date/Time: 8/27/20 15:00

Received by: _____ Date/Time: 8/26/20 09:15

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			<input type="checkbox"/> Containers, Broken	H
2. Were ambient air containers received intact?			/	<input type="checkbox"/> Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			<input type="checkbox"/> Yes <input type="checkbox"/> NA	D
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID: <u>5661</u> Correction factor: <u>0.0</u>	/			<input checked="" type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			<input type="checkbox"/> Containers, Broken	
6. Were samples received in appropriate containers?	/			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	/			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			<input type="checkbox"/> COC; No Date/Time; Client Contacted	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?	/			<input checked="" type="checkbox"/> Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	/			<input type="checkbox"/> COC No tests on COC	
13. Is the matrix of the samples noted?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			<input type="checkbox"/> COC Incorrect/Incomplete	pH test strip lot number: _____ Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	/			<input type="checkbox"/> Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?			/	<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Lot Number: _____ Exp Date: _____ Analyst: _____ Date: _____ Time: _____
17. Were VOA samples received without headspace?			/	<input type="checkbox"/> Headspace (VOA only) <input type="checkbox"/> Residual Chlorine	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/		
19. For 1613B water samples is pH<9?			/	<input type="checkbox"/> If no, notify lab to adjust	
20. For rad samples was sample activity info. Provided?			/	<input type="checkbox"/> Project missing info	
Project #:	PM Instructions: _____				

Sample Receiving Associate: [Signature] Date: 8-31-20 QA026R32.doc, 062719



23-1/240
 (here)

Chain of Custody Record



Environment Testing
 America



Client Information (Sub Contract Lab)		Sampler:		Lab Pk:		Carrier Tracking No(s)		COC No:	
Client Contact:		Henry, Ryan		140-8078-1		State of Origin:		Page:	
Shipping/Receiving		E-Mail:		william.henry@testamericainc.com		Georgia		Job #	
Company:		Accreditations Required (See note):		140-20212-1		Preservation Codes:		M - Hexane N - None O - AgNO ₃ P - Na ₂ O ₄ S Q - Na ₂ SO ₃ R - Na ₂ SO ₃ S - H ₂ SO ₄ T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 L - EDA Other:	
TestAmerica Laboratories, Inc.		Address:		4101 Shuffel Street NW		City:		North Canton	
State, Zip:		OH, 44720		Phone:		330-497-9396(Tel) 330-497-0772(Fax)		Email:	
Project Name:		Plant Gorgas - Logan Martin Dam		Project #:		14005989		SSOW#:	
Site:				Due Date Requested:		9/28/2020		TAT Requested (days):	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=soil, BT=Tissue, AW=Air)	
GS-AP-MW-2 (140-20212-1)		8/25/20		Eastern		Solid		Field Filtered Sample (Yes or No)	
GS-AP-MW-6 (140-20212-2)		8/25/20		Eastern		Solid		Perform MS/MSD (Yes or No)	
GS-AP-MW-7V (140-20212-3)		8/25/20		Eastern		Solid		PSR	
GS-AP-MW-8 (140-20212-4)		8/25/20		Eastern		Solid		Total Number of Containers	
GS-AP-MW-12V (135') (140-20212-5)		8/25/20		Eastern		Solid		1	
GS-AP-MW-12V (167.6') (140-20212-6)		8/25/20		Eastern		Solid		1	
GS-AP-MW-15 (140-20212-7)		8/25/20		Eastern		Solid		1	
GS-AP-MW-17V (140-20212-8)		8/25/20		Eastern		Solid		1	
GS-AP-MW-18 (173.9') (140-20212-9)		8/25/20		Eastern		Solid		1	
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.									
Possible Hazard Identification									
Unconfirmed					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2									
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____									
Relinquished by: <i>William Henry</i> Date/Time: 8-31-20 14:30 Company: EFA-VA X Received by: <i>R</i> Date/Time: 9-2-20 18:20 Company: TGA Received by: _____ Date/Time: _____ Company: _____									
Custody Seals Intact: _____ Custody Seal No.: _____									

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Lab PM Henry, Ryan		Carrier Tracking No(s):		COC No: 140-8078 2	
Client Contact: Shipping/Receiving		Phone: E-Mail: william.henry@testamerica.com		State of Origin: Georgia		Page: Page 2 of 2	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 140-20212-1		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecaldehyde U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDA Other:	
Address: 4101 Shuffel Street NW, City: North Canton State, Zip: OH, 44720 Phone: 330-497-9396(Tel) 330-497-0772(Fax) Email:		Due Date Requested: 9/28/2020 TAT Requested (days):		Analysis Requested		Total Number of Containers	
Project Name: Plant Gorgas - Logan Martin Dam Site:		PO #: WO #: Project #: 14005989 SSOW#:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (Water, Soil, Sludge, Other)		Preservation Code		PS		Special Instructions/Note:	
GS-AP-MW-1B (177) (140-20212-10)		8/25/20		Eastern		Solid	
GS-AP-MW-21 (140-20212-11)		8/25/20		Eastern		Solid	
GS-AP-MW-23H (140-20212-12)		8/25/20		Eastern		Solid	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: 8:30 1430 Company: EPA MWX
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Received by: _____ Date/Time: 9-2-20 Company: 7th
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____
 Cooler Temperature(s) °C and Other Remarks: _____

Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : _____

Canton Facility

Client Keeseville Site Name _____

Cooler unpacked by: _____

Cooler Received on 9-22-20 Opened on 9-22-20

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #IR-11 (CF +0.9 °C) Observed Cooler Temp. 23.1 °C Corrected Cooler Temp. 24.0 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No

10. Sufficient quantity received to perform indicated analyses? Yes No

11. Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC911298

13. Were VOAs on the COC? Yes No

14. Were air bubbles >6 mm in any VOA vials? ● Larger than this. Yes No NA

15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No

16. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

ANALYTICAL REPORT

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

Laboratory Job ID: 140-20720-1
Client Project/Site: Plant Gorgas

For:

Golder Associates Inc.
18300 NE Union Hill Road
Suite 200
Redmond, Washington 98052-3333

Attn: PJ Nolan



*Authorized for release by:
12/1/2020 10:56:13 AM*

Ryan Henry, Project Manager I
(865)291-3000
williamr.henry@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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



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Definitions/Glossary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Qualifiers

Metals

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Job ID: 140-20720-1

Laboratory: Eurofins TestAmerica, Knoxville

Narrative

Job Narrative 140-20720-1

Receipt

The sample was received on 10/15/2020 at 9:45am and arrived in good condition. The temperature of the cooler at receipt was 19.2° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

The following sample was received at the laboratory outside the required temperature criteria: GS-AP-MW-44 HO (140-20720-1).

Metals

7 Step Sequential Extraction Procedure

These soil samples were prepared and analyzed using Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0008, "7 Step Sequential Extraction Procedure". SW-846 Method 6010B as incorporated in Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0007 was used to perform the final instrument analyses.

An aliquot of each sample was sequentially extracted using the steps listed below:

- Step 1 - Exchangeable Fraction: A 5 gram aliquot of sample was extracted with 25 mL of 1M magnesium sulfate (MgSO₄), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 2 - Carbonate Fraction: The sample residue from step 1 was extracted with 25 mL of 1M sodium acetate/acetic acid (NaOAc/HOAc) at pH 5, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 3 - Non-crystalline Materials Fraction: The sample residue from step 2 was extracted with 25 mL of 0.2M ammonium oxalate (pH 3), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 4 - Metal Hydroxide Fraction: The sample residue from step 3 was extracted with 25 mL of 1M hydroxylamine hydrochloride solution in 25% v/v acetic acid, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 5 - Organic-bound Fraction: The sample residue from step 4 was extracted three times with 25 mL of 5% sodium hypochlorite (NaClO) at pH 9.5, centrifuged and filtered. The resulting leachates were combined and 5 mL were digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 6 - Acid/Sulfide Fraction: The sample residue from step 5 was extracted with 25 mL of a 3:1:2 v/v solution of HCl-HNO₃-H₂O, centrifuged and filtered. 5 mL of the resulting leachate was diluted to 50 mL with reagent water and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
- Step 7 - Residual Fraction: A 1.0 g aliquot of the sample residue from step 6 was digested using HF, HNO₃, HCl and H₃BO₃. The digestate was analyzed by ICP using method 6010B. Results are reported in mg/kg on a dry weight basis.

In addition, a 1.0 g aliquot of the original sample was digested using HF, HNO₃, HCl and H₃BO₃. The digestate was analyzed by ICP using method 6010B. Total metal results are reported in mg/kg on a dry weight basis.

Results were calculated using the following equation:

$$\text{Result, } \mu\text{g/g or mg/Kg, dry weight} = (C \times V \times V1 \times D) / (W \times S \times V2)$$

Where:

C = Concentration from instrument readout, $\mu\text{g/mL}$

V = Final volume of digestate, mL

D = Instrument dilution factor

V1 = Total volume of leachate, mL

V2 = Volume of leachate digested, mL

Case Narrative

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Job ID: 140-20720-1 (Continued)

Laboratory: Eurofins TestAmerica, Knoxville (Continued)

W = Wet weight of sample, g
S = Percent solids/100

A method blank, laboratory control sample and laboratory control sample duplicate were prepared and analyzed with each SEP step in order to provide information about both the presence of elements of interest in the extraction solutions, and the recovery of elements of interest from the extraction solutions. Results outside of laboratory QC limits do not reflect out of control performance, but rather the effect of the extraction solution upon the analyte.

A laboratory sample duplicate was prepared and analyzed with each batch of samples in order to provide information regarding the reproducibility of the procedure.

SEP Report Notes:

The final report lists the results for each step, the result for the total digestion of the sample, and a sum of the results of steps 1 through 7 by element.

Magnesium was not reported for step 1 because the extraction solution for this step (magnesium sulfate) contains high levels of magnesium. Sodium was not reported for steps 2 and 5 since the extraction solutions for these steps contain high levels of sodium. The sum of steps 1 through 7 is much higher than the total result for sodium and magnesium due to the magnesium and sodium introduced by the extraction solutions.

The digestates for steps 1, 2 and 5 were analyzed at a dilution due to instrument problems caused by the high solids content of the digestates. The reporting limits were adjusted accordingly.

Method 6010B: The following sample was diluted due to the nature of the sample matrix: GS-AP-MW-44 HO (140-20720-1). Elevated reporting limits (RLs) are provided for aluminum.

Method 6010B SEP: Upon review of the LCS/LCSD data from the analysis performed on 11-19-20, a discrepancy was noticed with the percent recoveries for iron. Step 2 is known to have low or no iron recoveries for iron. The LCS at 11-19-20 12:50 has 19% while the LCSD at 11-19-20 12:55 has 143%. The LCS and LCSD were re-analyzed on 11-23-20. The reanalysis recovery for the LCS at 11-23-20 14:57 has 3% and the LCSD at 11-23-20 15:02 has 8%. It is suspected that the LCSD analyzed 11-19-20 12:50 was contaminated. The decision was made to report both sets of LCS/LCSD data for Step 2.

(LCS 140-44514/18-B ^5) and (LCSD 140-44514/19-B ^5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-20720-1	GS-AP-MW-44 HO	Solid	10/13/20 00:00	10/15/20 09:45	

1

2

3

4

5

6

7

8

9

10

11

12

13

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: GS-AP-MW-44 HO

Lab Sample ID: 140-20720-1

Date Collected: 10/13/20 00:00

Matrix: Solid

Date Received: 10/15/20 09:45

Percent Solids: 98.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		41	6.5	mg/Kg	☼	11/17/20 08:00	11/18/20 13:37	4
Arsenic	ND		2.0	0.53	mg/Kg	☼	11/17/20 08:00	11/18/20 13:37	4
Cobalt	ND		10	0.18	mg/Kg	☼	11/17/20 08:00	11/18/20 13:37	4
Iron	34	*	20	12	mg/Kg	☼	11/17/20 08:00	11/18/20 13:37	4
Lithium	ND		10	0.61	mg/Kg	☼	11/17/20 08:00	11/18/20 13:37	4
Manganese	0.52	J	3.1	0.13	mg/Kg	☼	11/17/20 08:00	11/18/20 13:37	4
Molybdenum	ND		8.1	0.33	mg/Kg	☼	11/17/20 08:00	11/18/20 13:37	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		31	4.9	mg/Kg	☼	11/18/20 08:00	11/19/20 13:00	3
Arsenic	ND		1.5	0.40	mg/Kg	☼	11/18/20 08:00	11/19/20 13:00	3
Cobalt	ND		7.6	0.19	mg/Kg	☼	11/18/20 08:00	11/19/20 13:00	3
Iron	27	B	15	8.9	mg/Kg	☼	11/18/20 08:00	11/19/20 13:00	3
Lithium	0.47	J	7.6	0.46	mg/Kg	☼	11/18/20 08:00	11/19/20 13:00	3
Manganese	ND		2.3	0.85	mg/Kg	☼	11/18/20 08:00	11/19/20 13:00	3
Molybdenum	ND		6.1	0.25	mg/Kg	☼	11/18/20 08:00	11/19/20 13:00	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3.6	J	10	2.1	mg/Kg	☼	11/19/20 08:00	11/20/20 11:17	1
Arsenic	0.14	J	0.51	0.13	mg/Kg	☼	11/19/20 08:00	11/20/20 11:17	1
Cobalt	ND		2.5	0.046	mg/Kg	☼	11/19/20 08:00	11/20/20 11:17	1
Iron	28		5.1	3.0	mg/Kg	☼	11/19/20 08:00	11/20/20 11:17	1
Lithium	ND		2.5	0.15	mg/Kg	☼	11/19/20 08:00	11/20/20 11:17	1
Manganese	0.15	J B	0.76	0.027	mg/Kg	☼	11/19/20 08:00	11/20/20 11:17	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	11/19/20 08:00	11/20/20 11:17	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	63		10	1.6	mg/Kg	☼	11/20/20 08:00	11/21/20 12:11	1
Arsenic	0.23	J	0.51	0.22	mg/Kg	☼	11/20/20 08:00	11/21/20 12:11	1
Cobalt	0.076	J	2.5	0.054	mg/Kg	☼	11/20/20 08:00	11/21/20 12:11	1
Iron	150		5.1	3.0	mg/Kg	☼	11/20/20 08:00	11/21/20 12:11	1
Lithium	0.23	J	2.5	0.15	mg/Kg	☼	11/20/20 08:00	11/21/20 12:11	1
Manganese	0.41	J	0.76	0.13	mg/Kg	☼	11/20/20 08:00	11/21/20 12:11	1
Molybdenum	ND		2.0	0.083	mg/Kg	☼	11/20/20 08:00	11/21/20 12:11	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	30	J	150	24	mg/Kg	☼	11/22/20 08:00	11/23/20 10:59	5
Arsenic	ND		7.6	1.9	mg/Kg	☼	11/22/20 08:00	11/23/20 10:59	5
Cobalt	ND		38	0.61	mg/Kg	☼	11/22/20 08:00	11/23/20 10:59	5
Iron	65	J	76	45	mg/Kg	☼	11/22/20 08:00	11/23/20 10:59	5
Lithium	ND		38	2.2	mg/Kg	☼	11/22/20 08:00	11/23/20 10:59	5
Manganese	ND		11	1.9	mg/Kg	☼	11/22/20 08:00	11/23/20 10:59	5
Molybdenum	ND		31	1.3	mg/Kg	☼	11/22/20 08:00	11/23/20 10:59	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	160		10	1.6	mg/Kg	☼	11/22/20 08:00	11/23/20 12:55	1

Eurofins TestAmerica, Knoxville

Client Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: GS-AP-MW-44 HO

Lab Sample ID: 140-20720-1

Date Collected: 10/13/20 00:00

Matrix: Solid

Date Received: 10/15/20 09:45

Percent Solids: 98.3

Method: 6010B SEP - SEP Metals (ICP) - Step 6 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.51	0.15	mg/Kg	☼	11/22/20 08:00	11/23/20 12:55	1
Cobalt	0.28	J	2.5	0.047	mg/Kg	☼	11/22/20 08:00	11/23/20 12:55	1
Iron	870		5.1	3.0	mg/Kg	☼	11/22/20 08:00	11/23/20 12:55	1
Lithium	0.27	J	2.5	0.15	mg/Kg	☼	11/22/20 08:00	11/23/20 12:55	1
Manganese	0.77		0.76	0.25	mg/Kg	☼	11/22/20 08:00	11/23/20 12:55	1
Molybdenum	ND		2.0	0.10	mg/Kg	☼	11/22/20 08:00	11/23/20 12:55	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2600		10	1.6	mg/Kg	☼	11/23/20 08:00	11/24/20 13:11	1
Arsenic	2.1		0.51	0.13	mg/Kg	☼	11/23/20 08:00	11/24/20 13:11	1
Cobalt	2.3	J	2.5	0.026	mg/Kg	☼	11/23/20 08:00	11/24/20 13:11	1
Iron	1900		5.1	4.2	mg/Kg	☼	11/23/20 08:00	11/24/20 13:11	1
Lithium	3.3		2.5	0.15	mg/Kg	☼	11/23/20 08:00	11/24/20 13:11	1
Manganese	4.0		0.76	0.11	mg/Kg	☼	11/23/20 08:00	11/24/20 13:11	1
Molybdenum	0.94	J	2.0	0.083	mg/Kg	☼	11/23/20 08:00	11/24/20 13:11	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2900		10	1.6	mg/Kg			12/01/20 09:00	1
Arsenic	3.8		0.50	0.13	mg/Kg			12/01/20 09:00	1
Cobalt	2.6		2.5	0.023	mg/Kg			12/01/20 09:00	1
Iron	3100		5.0	4.1	mg/Kg			12/01/20 09:00	1
Lithium	4.2		2.5	0.15	mg/Kg			12/01/20 09:00	1
Manganese	5.8		0.75	0.052	mg/Kg			12/01/20 09:00	1
Molybdenum	0.94	J	2.0	0.082	mg/Kg			12/01/20 09:00	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5100		100	16	mg/Kg	☼	11/16/20 08:00	11/25/20 11:50	10
Arsenic	3.2		0.51	0.13	mg/Kg	☼	11/16/20 08:00	11/25/20 13:28	1
Cobalt	4.3		2.5	0.026	mg/Kg	☼	11/16/20 08:00	11/25/20 13:28	1
Iron	3300		5.1	4.2	mg/Kg	☼	11/16/20 08:00	11/25/20 13:28	1
Lithium	6.1		2.5	0.15	mg/Kg	☼	11/16/20 08:00	11/25/20 13:28	1
Manganese	7.9		0.76	0.11	mg/Kg	☼	11/16/20 08:00	11/25/20 13:28	1
Molybdenum	1.2	J	2.0	0.083	mg/Kg	☼	11/16/20 08:00	11/25/20 13:28	1

Default Detection Limits

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Prep: 3010A

SEP: Exchangeable

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.045	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.031	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Prep: 3010A

SEP: Carbonate

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.063	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.28	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Prep: 3010A

SEP: Non-Crystalline

Analyte	RL	MDL	Units
Aluminum	10	2.1	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.045	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.027	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Prep: 3010A

SEP: Metal Hydroxide

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.22	mg/Kg
Cobalt	2.5	0.053	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.13	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Prep: 3010A

SEP: Organic-Bound

Analyte	RL	MDL	Units
Aluminum	30	4.7	mg/Kg
Arsenic	1.5	0.38	mg/Kg

Default Detection Limits

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) - Step 5 (Continued)

Prep: 3010A

SEP: Organic-Bound

Analyte	RL	MDL	Units
Cobalt	7.5	0.12	mg/Kg
Iron	15	8.8	mg/Kg
Lithium	7.5	0.44	mg/Kg
Manganese	2.3	0.37	mg/Kg
Molybdenum	6.0	0.25	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 6

SEP: Acid/Sulfide

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.15	mg/Kg
Cobalt	2.5	0.046	mg/Kg
Iron	5.0	2.9	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.25	mg/Kg
Molybdenum	2.0	0.099	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Prep: Residual

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.026	mg/Kg
Iron	5.0	4.1	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.11	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.023	mg/Kg
Iron	5.0	4.1	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.052	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B - SEP Metals (ICP) - Total

Prep: Total

Analyte	RL	MDL	Units
Aluminum	10	1.6	mg/Kg
Arsenic	0.50	0.13	mg/Kg
Cobalt	2.5	0.026	mg/Kg
Iron	5.0	4.1	mg/Kg
Lithium	2.5	0.15	mg/Kg
Manganese	0.75	0.11	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B - SEP Metals (ICP) - Total

Lab Sample ID: MB 140-44460/16-A
Matrix: Solid
Analysis Batch: 44810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	1.6	mg/Kg		11/16/20 08:00	11/25/20 15:17	1
Arsenic	ND		0.50	0.13	mg/Kg		11/16/20 08:00	11/25/20 15:17	1
Cobalt	ND		2.5	0.026	mg/Kg		11/16/20 08:00	11/25/20 15:17	1
Iron	ND		5.0	4.1	mg/Kg		11/16/20 08:00	11/25/20 15:17	1
Lithium	ND		2.5	0.15	mg/Kg		11/16/20 08:00	11/25/20 15:17	1
Manganese	ND		0.75	0.11	mg/Kg		11/16/20 08:00	11/25/20 15:17	1
Molybdenum	ND		2.0	0.082	mg/Kg		11/16/20 08:00	11/25/20 15:17	1

Lab Sample ID: LCS 140-44460/17-A
Matrix: Solid
Analysis Batch: 44810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	99.2		mg/Kg		99	80 - 120
Arsenic	5.00	5.18		mg/Kg		104	80 - 120
Cobalt	5.00	5.20		mg/Kg		104	80 - 125
Iron	50.0	52.5		mg/Kg		105	80 - 120
Lithium	5.00	4.98		mg/Kg		100	80 - 120
Manganese	5.00	5.24		mg/Kg		105	80 - 120
Molybdenum	25.0	25.9		mg/Kg		103	80 - 125

Lab Sample ID: LCSD 140-44460/18-A
Matrix: Solid
Analysis Batch: 44810

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44460

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	98.9		mg/Kg		99	80 - 120	0	30
Arsenic	5.00	5.11		mg/Kg		102	80 - 120	2	30
Cobalt	5.00	5.23		mg/Kg		105	80 - 125	1	30
Iron	50.0	52.6		mg/Kg		105	80 - 120	0	30
Lithium	5.00	5.04		mg/Kg		101	80 - 120	1	30
Manganese	5.00	5.26		mg/Kg		105	80 - 120	0	30
Molybdenum	25.0	26.0		mg/Kg		104	80 - 125	1	30

Method: 6010B SEP - SEP Metals (ICP)

Lab Sample ID: MB 140-44489/17-B ^4
Matrix: Solid
Analysis Batch: 44606

Client Sample ID: Method Blank
Prep Type: Step 1
Prep Batch: 44513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9.48	J	40	6.4	mg/Kg		11/17/20 08:00	11/18/20 13:23	4
Arsenic	ND		2.0	0.52	mg/Kg		11/17/20 08:00	11/18/20 13:23	4
Cobalt	ND		10	0.18	mg/Kg		11/17/20 08:00	11/18/20 13:23	4
Iron	ND		20	12	mg/Kg		11/17/20 08:00	11/18/20 13:23	4
Lithium	ND		10	0.60	mg/Kg		11/17/20 08:00	11/18/20 13:23	4
Manganese	ND		3.0	0.12	mg/Kg		11/17/20 08:00	11/18/20 13:23	4
Molybdenum	ND		8.0	0.33	mg/Kg		11/17/20 08:00	11/18/20 13:23	4

Eurofins TestAmerica, Knoxville

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-44489/18-B ^5
Matrix: Solid
Analysis Batch: 44606

Client Sample ID: Lab Control Sample
Prep Type: Step 1
Prep Batch: 44513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	104		mg/Kg		104	80 - 120
Arsenic	5.00	4.93		mg/Kg		99	80 - 120
Cobalt	5.00	4.97	J	mg/Kg		99	80 - 120
Iron	50.0	61.8	*	mg/Kg		124	80 - 120
Lithium	5.00	5.52	J	mg/Kg		110	80 - 120
Manganese	5.00	5.61		mg/Kg		112	80 - 120
Molybdenum	25.0	24.5		mg/Kg		98	80 - 120

Lab Sample ID: LCSD 140-44489/19-B ^5
Matrix: Solid
Analysis Batch: 44606

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 1
Prep Batch: 44513

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	109		mg/Kg		109	80 - 120	5	30
Arsenic	5.00	4.80		mg/Kg		96	80 - 120	3	30
Cobalt	5.00	4.92	J	mg/Kg		98	80 - 120	1	30
Iron	50.0	56.1		mg/Kg		112	80 - 120	10	30
Lithium	5.00	5.39	J	mg/Kg		108	80 - 120	2	30
Manganese	5.00	5.39		mg/Kg		108	80 - 120	4	30
Molybdenum	25.0	24.2		mg/Kg		97	80 - 120	1	30

Lab Sample ID: MB 140-44514/17-B ^3
Matrix: Solid
Analysis Batch: 44644

Client Sample ID: Method Blank
Prep Type: Step 2
Prep Batch: 44560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		30	4.8	mg/Kg		11/18/20 08:00	11/19/20 12:45	3
Arsenic	ND		1.5	0.39	mg/Kg		11/18/20 08:00	11/19/20 12:45	3
Cobalt	ND		7.5	0.19	mg/Kg		11/18/20 08:00	11/19/20 12:45	3
Iron	9.14	J	15	8.7	mg/Kg		11/18/20 08:00	11/19/20 12:45	3
Lithium	ND		7.5	0.45	mg/Kg		11/18/20 08:00	11/19/20 12:45	3
Manganese	ND		2.3	0.84	mg/Kg		11/18/20 08:00	11/19/20 12:45	3
Molybdenum	ND		6.0	0.25	mg/Kg		11/18/20 08:00	11/19/20 12:45	3

Lab Sample ID: LCS 140-44514/18-B ^5
Matrix: Solid
Analysis Batch: 44644

Client Sample ID: Lab Control Sample
Prep Type: Step 2
Prep Batch: 44560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	ND		mg/Kg		5	
Arsenic	5.00	3.89		mg/Kg		78	60 - 120
Cobalt	5.00	4.62	J	mg/Kg		92	80 - 120
Iron	50.0	ND		mg/Kg		19	
Lithium	5.00	5.12	J	mg/Kg		102	80 - 120
Manganese	5.00	4.74		mg/Kg		95	80 - 120
Molybdenum	25.0	20.0		mg/Kg		80	70 - 120

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-44514/18-B ^5
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Lab Control Sample
Prep Type: Step 2
Prep Batch: 44560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	ND		mg/Kg		-2	
Arsenic	5.00	3.50		mg/Kg		70	60 - 120
Cobalt	5.00	4.64	J	mg/Kg		93	80 - 120
Iron	50.0	ND		mg/Kg		3	
Lithium	5.00	5.19	J	mg/Kg		104	80 - 120
Manganese	5.00	4.84		mg/Kg		97	80 - 120
Molybdenum	25.0	20.0		mg/Kg		80	70 - 120

Lab Sample ID: LCSD 140-44514/19-B ^5
Matrix: Solid
Analysis Batch: 44644

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 2
Prep Batch: 44560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	ND		mg/Kg		-3		855	
Arsenic	5.00	3.67		mg/Kg		73	60 - 120	6	30
Cobalt	5.00	4.57	J	mg/Kg		91	80 - 120	1	30
Iron	50.0	71.3		mg/Kg		143		153	
Lithium	5.00	4.95	J	mg/Kg		99	80 - 120	3	30
Manganese	5.00	5.04		mg/Kg		101	80 - 120	6	30
Molybdenum	25.0	20.1		mg/Kg		80	70 - 120	0	30

Lab Sample ID: LCSD 140-44514/19-B ^5
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 2
Prep Batch: 44560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	ND		mg/Kg		5		445	
Arsenic	5.00	3.57		mg/Kg		71	60 - 120	2	30
Cobalt	5.00	4.62	J	mg/Kg		92	80 - 120	0	30
Iron	50.0	ND		mg/Kg		8		85	
Lithium	5.00	4.93	J	mg/Kg		99	80 - 120	5	30
Manganese	5.00	4.80		mg/Kg		96	80 - 120	1	30
Molybdenum	25.0	20.0		mg/Kg		80	70 - 120	0	30

Lab Sample ID: MB 140-44562/17-B
Matrix: Solid
Analysis Batch: 44678

Client Sample ID: Method Blank
Prep Type: Step 3
Prep Batch: 44602

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	2.1	mg/Kg		11/19/20 08:00	11/20/20 11:02	1
Arsenic	ND		0.50	0.13	mg/Kg		11/19/20 08:00	11/20/20 11:02	1
Cobalt	ND		2.5	0.045	mg/Kg		11/19/20 08:00	11/20/20 11:02	1
Iron	ND		5.0	2.9	mg/Kg		11/19/20 08:00	11/20/20 11:02	1
Lithium	ND		2.5	0.15	mg/Kg		11/19/20 08:00	11/20/20 11:02	1
Manganese	0.0545	J	0.75	0.027	mg/Kg		11/19/20 08:00	11/20/20 11:02	1
Molybdenum	ND		2.0	0.082	mg/Kg		11/19/20 08:00	11/20/20 11:02	1

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-44562/18-B
Matrix: Solid
Analysis Batch: 44678

Client Sample ID: Lab Control Sample
Prep Type: Step 3
Prep Batch: 44602

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	98.8		mg/Kg		99	80 - 120
Arsenic	5.00	4.89		mg/Kg		98	80 - 120
Cobalt	5.00	5.01		mg/Kg		100	80 - 120
Iron	50.0	51.3		mg/Kg		103	80 - 120
Lithium	5.00	4.92		mg/Kg		98	80 - 120
Manganese	5.00	5.16		mg/Kg		103	80 - 120
Molybdenum	25.0	24.9		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 140-44562/19-B
Matrix: Solid
Analysis Batch: 44678

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 3
Prep Batch: 44602

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	100		mg/Kg		100	80 - 120	1	30
Arsenic	5.00	4.93		mg/Kg		99	80 - 120	1	30
Cobalt	5.00	5.06		mg/Kg		101	80 - 120	1	30
Iron	50.0	52.2		mg/Kg		104	80 - 120	2	30
Lithium	5.00	4.98		mg/Kg		100	80 - 120	1	30
Manganese	5.00	5.24		mg/Kg		105	80 - 120	2	30
Molybdenum	25.0	24.9		mg/Kg		100	80 - 120	0	30

Lab Sample ID: MB 140-44603/17-B
Matrix: Solid
Analysis Batch: 44696

Client Sample ID: Method Blank
Prep Type: Step 4
Prep Batch: 44645

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	1.6	mg/Kg		11/20/20 08:00	11/21/20 11:56	1
Arsenic	ND		0.50	0.22	mg/Kg		11/20/20 08:00	11/21/20 11:56	1
Cobalt	ND		2.5	0.053	mg/Kg		11/20/20 08:00	11/21/20 11:56	1
Iron	ND		5.0	2.9	mg/Kg		11/20/20 08:00	11/21/20 11:56	1
Lithium	ND		2.5	0.15	mg/Kg		11/20/20 08:00	11/21/20 11:56	1
Manganese	ND		0.75	0.13	mg/Kg		11/20/20 08:00	11/21/20 11:56	1
Molybdenum	ND		2.0	0.082	mg/Kg		11/20/20 08:00	11/21/20 11:56	1

Lab Sample ID: LCS 140-44603/18-B
Matrix: Solid
Analysis Batch: 44696

Client Sample ID: Lab Control Sample
Prep Type: Step 4
Prep Batch: 44645

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	102		mg/Kg		102	80 - 120
Arsenic	5.00	5.24		mg/Kg		105	80 - 130
Cobalt	5.00	5.17		mg/Kg		103	80 - 120
Iron	50.0	53.4		mg/Kg		107	80 - 120
Lithium	5.00	5.23		mg/Kg		105	80 - 120
Manganese	5.00	5.31		mg/Kg		106	80 - 120
Molybdenum	25.0	25.7		mg/Kg		103	80 - 120

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCSD 140-44603/19-B
Matrix: Solid
Analysis Batch: 44696

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 4
Prep Batch: 44645

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aluminum	100	102		mg/Kg		102	80 - 120	0	30	
Arsenic	5.00	5.27		mg/Kg		105	80 - 130	1	30	
Cobalt	5.00	5.19		mg/Kg		104	80 - 120	0	30	
Iron	50.0	52.9		mg/Kg		106	80 - 120	1	30	
Lithium	5.00	5.21		mg/Kg		104	80 - 120	0	30	
Manganese	5.00	5.29		mg/Kg		106	80 - 120	0	30	
Molybdenum	25.0	26.2		mg/Kg		105	80 - 120	2	30	

Lab Sample ID: MB 140-44646/17-B ^5
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Method Blank
Prep Type: Step 5
Prep Batch: 44692

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	ND		7.5	1.9	mg/Kg		11/22/20 08:00	11/23/20 10:44		5
Cobalt	ND		38	0.60	mg/Kg		11/22/20 08:00	11/23/20 10:44		5
Iron	ND		75	44	mg/Kg		11/22/20 08:00	11/23/20 10:44		5
Lithium	ND		38	2.2	mg/Kg		11/22/20 08:00	11/23/20 10:44		5
Manganese	ND		11	1.9	mg/Kg		11/22/20 08:00	11/23/20 10:44		5
Molybdenum	ND		30	1.3	mg/Kg		11/22/20 08:00	11/23/20 10:44		5

Lab Sample ID: LCS 140-44646/18-B ^5
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Lab Control Sample
Prep Type: Step 5
Prep Batch: 44692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aluminum	300	ND		mg/Kg		7				
Arsenic	15.0	10.3		mg/Kg		69	60 - 100			
Cobalt	15.0	1.85	J	mg/Kg		12	1 - 60			
Iron	150	ND		mg/Kg		3				
Lithium	15.0	16.0	J	mg/Kg		107	80 - 150			
Manganese	15.0	ND		mg/Kg		7	1 - 60			
Molybdenum	75.0	51.6		mg/Kg		69	60 - 100			

Lab Sample ID: LCSD 140-44646/19-B ^5
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 5
Prep Batch: 44692

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aluminum	300	ND		mg/Kg		3			96	
Arsenic	15.0	10.2		mg/Kg		68	60 - 100	1	30	
Cobalt	15.0	1.77	J	mg/Kg		12	1 - 60	4	30	
Iron	150	ND		mg/Kg		20			152	
Lithium	15.0	15.8	J	mg/Kg		106	80 - 150	1	30	
Manganese	15.0	ND		mg/Kg		10	1 - 60	26	30	
Molybdenum	75.0	51.2		mg/Kg		68	60 - 100	1	30	

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: MB 140-44693/17-A
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Method Blank
Prep Type: Step 6
Prep Batch: 44693

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		10	1.6	mg/Kg		11/22/20 08:00	11/23/20 12:41	1
Arsenic	ND		0.50	0.15	mg/Kg		11/22/20 08:00	11/23/20 12:41	1
Cobalt	ND		2.5	0.046	mg/Kg		11/22/20 08:00	11/23/20 12:41	1
Iron	ND		5.0	2.9	mg/Kg		11/22/20 08:00	11/23/20 12:41	1
Lithium	ND		2.5	0.15	mg/Kg		11/22/20 08:00	11/23/20 12:41	1
Manganese	ND		0.75	0.25	mg/Kg		11/22/20 08:00	11/23/20 12:41	1
Molybdenum	ND		2.0	0.099	mg/Kg		11/22/20 08:00	11/23/20 12:41	1

Lab Sample ID: LCS 140-44693/18-A
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Lab Control Sample
Prep Type: Step 6
Prep Batch: 44693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Aluminum	100	98.7		mg/Kg		99	80 - 120	
Arsenic	5.00	4.96		mg/Kg		99	80 - 120	
Cobalt	5.00	5.01		mg/Kg		100	80 - 120	
Iron	50.0	49.9		mg/Kg		100	80 - 120	
Lithium	5.00	5.08		mg/Kg		102	80 - 120	
Manganese	5.00	5.09		mg/Kg		102	80 - 120	
Molybdenum	25.0	24.5		mg/Kg		98	80 - 120	

Lab Sample ID: LCSD 140-44693/19-A
Matrix: Solid
Analysis Batch: 44734

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 6
Prep Batch: 44693

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
Aluminum	100	98.0		mg/Kg		98	80 - 120	1	30	
Arsenic	5.00	4.88		mg/Kg		98	80 - 120	2	30	
Cobalt	5.00	4.96		mg/Kg		99	80 - 120	1	30	
Iron	50.0	50.2		mg/Kg		100	80 - 120	1	30	
Lithium	5.00	5.00		mg/Kg		100	80 - 120	1	30	
Manganese	5.00	5.05		mg/Kg		101	80 - 120	1	30	
Molybdenum	25.0	24.3		mg/Kg		97	80 - 120	1	30	

Lab Sample ID: MB 140-44697/17-A
Matrix: Solid
Analysis Batch: 44784

Client Sample ID: Method Blank
Prep Type: Step 7
Prep Batch: 44697

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		10	1.6	mg/Kg		11/23/20 08:00	11/24/20 11:13	1
Arsenic	ND		0.50	0.13	mg/Kg		11/23/20 08:00	11/24/20 11:13	1
Cobalt	ND		2.5	0.026	mg/Kg		11/23/20 08:00	11/24/20 11:13	1
Iron	ND		5.0	4.1	mg/Kg		11/23/20 08:00	11/24/20 11:13	1
Lithium	ND		2.5	0.15	mg/Kg		11/23/20 08:00	11/24/20 11:13	1
Manganese	ND		0.75	0.11	mg/Kg		11/23/20 08:00	11/24/20 11:13	1
Molybdenum	ND		2.0	0.082	mg/Kg		11/23/20 08:00	11/24/20 11:13	1

QC Sample Results

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-44697/18-A
Matrix: Solid
Analysis Batch: 44784

Client Sample ID: Lab Control Sample
Prep Type: Step 7
Prep Batch: 44697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	99.7		mg/Kg		100	80 - 120
Arsenic	5.00	5.04		mg/Kg		101	80 - 120
Cobalt	5.00	5.20		mg/Kg		104	80 - 125
Iron	50.0	53.6		mg/Kg		107	80 - 120
Lithium	5.00	4.98		mg/Kg		100	80 - 120
Manganese	5.00	5.39		mg/Kg		108	80 - 120
Molybdenum	25.0	26.0		mg/Kg		104	80 - 125

Lab Sample ID: LCSD 140-44697/19-A
Matrix: Solid
Analysis Batch: 44784

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 7
Prep Batch: 44697

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	101		mg/Kg		101	80 - 120	1	30
Arsenic	5.00	5.17		mg/Kg		103	80 - 120	2	30
Cobalt	5.00	5.27		mg/Kg		105	80 - 125	1	30
Iron	50.0	54.8		mg/Kg		110	80 - 120	2	30
Lithium	5.00	5.15		mg/Kg		103	80 - 120	3	30
Manganese	5.00	5.45		mg/Kg		109	80 - 120	1	30
Molybdenum	25.0	26.1		mg/Kg		104	80 - 125	0	30

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Metals

Prep Batch: 44460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Total/NA	Solid	Total	
MB 140-44460/16-A	Method Blank	Total/NA	Solid	Total	
LCS 140-44460/17-A	Lab Control Sample	Total/NA	Solid	Total	
LCSD 140-44460/18-A	Lab Control Sample Dup	Total/NA	Solid	Total	

SEP Batch: 44489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 1	Solid	Exchangeable	
MB 140-44489/17-B ^4	Method Blank	Step 1	Solid	Exchangeable	
LCS 140-44489/18-B ^5	Lab Control Sample	Step 1	Solid	Exchangeable	
LCSD 140-44489/19-B ^5	Lab Control Sample Dup	Step 1	Solid	Exchangeable	

Prep Batch: 44513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 1	Solid	3010A	44489
MB 140-44489/17-B ^4	Method Blank	Step 1	Solid	3010A	44489
LCS 140-44489/18-B ^5	Lab Control Sample	Step 1	Solid	3010A	44489
LCSD 140-44489/19-B ^5	Lab Control Sample Dup	Step 1	Solid	3010A	44489

SEP Batch: 44514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 2	Solid	Carbonate	
MB 140-44514/17-B ^3	Method Blank	Step 2	Solid	Carbonate	
LCS 140-44514/18-B ^5	Lab Control Sample	Step 2	Solid	Carbonate	
LCSD 140-44514/19-B ^5	Lab Control Sample Dup	Step 2	Solid	Carbonate	

Prep Batch: 44560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 2	Solid	3010A	44514
MB 140-44514/17-B ^3	Method Blank	Step 2	Solid	3010A	44514
LCS 140-44514/18-B ^5	Lab Control Sample	Step 2	Solid	3010A	44514
LCSD 140-44514/19-B ^5	Lab Control Sample Dup	Step 2	Solid	3010A	44514

SEP Batch: 44562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 3	Solid	Non-Crystalline	
MB 140-44562/17-B	Method Blank	Step 3	Solid	Non-Crystalline	
LCS 140-44562/18-B	Lab Control Sample	Step 3	Solid	Non-Crystalline	
LCSD 140-44562/19-B	Lab Control Sample Dup	Step 3	Solid	Non-Crystalline	

Prep Batch: 44602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 3	Solid	3010A	44562
MB 140-44562/17-B	Method Blank	Step 3	Solid	3010A	44562
LCS 140-44562/18-B	Lab Control Sample	Step 3	Solid	3010A	44562
LCSD 140-44562/19-B	Lab Control Sample Dup	Step 3	Solid	3010A	44562

SEP Batch: 44603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 4	Solid	Metal Hydroxide	
MB 140-44603/17-B	Method Blank	Step 4	Solid	Metal Hydroxide	

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QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Metals (Continued)

SEP Batch: 44603 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 140-44603/18-B	Lab Control Sample	Step 4	Solid	Metal Hydroxide	
LCSD 140-44603/19-B	Lab Control Sample Dup	Step 4	Solid	Metal Hydroxide	

Analysis Batch: 44606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 1	Solid	6010B SEP	44513
MB 140-44489/17-B ^4	Method Blank	Step 1	Solid	6010B SEP	44513
LCS 140-44489/18-B ^5	Lab Control Sample	Step 1	Solid	6010B SEP	44513
LCSD 140-44489/19-B ^5	Lab Control Sample Dup	Step 1	Solid	6010B SEP	44513

Analysis Batch: 44644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 2	Solid	6010B SEP	44560
MB 140-44514/17-B ^3	Method Blank	Step 2	Solid	6010B SEP	44560
LCS 140-44514/18-B ^5	Lab Control Sample	Step 2	Solid	6010B SEP	44560
LCSD 140-44514/19-B ^5	Lab Control Sample Dup	Step 2	Solid	6010B SEP	44560

Prep Batch: 44645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 4	Solid	3010A	44603
MB 140-44603/17-B	Method Blank	Step 4	Solid	3010A	44603
LCS 140-44603/18-B	Lab Control Sample	Step 4	Solid	3010A	44603
LCSD 140-44603/19-B	Lab Control Sample Dup	Step 4	Solid	3010A	44603

SEP Batch: 44646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 5	Solid	Organic-Bound	
MB 140-44646/17-B ^5	Method Blank	Step 5	Solid	Organic-Bound	
LCS 140-44646/18-B ^5	Lab Control Sample	Step 5	Solid	Organic-Bound	
LCSD 140-44646/19-B ^5	Lab Control Sample Dup	Step 5	Solid	Organic-Bound	

Analysis Batch: 44678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 3	Solid	6010B SEP	44602
MB 140-44562/17-B	Method Blank	Step 3	Solid	6010B SEP	44602
LCS 140-44562/18-B	Lab Control Sample	Step 3	Solid	6010B SEP	44602
LCSD 140-44562/19-B	Lab Control Sample Dup	Step 3	Solid	6010B SEP	44602

Prep Batch: 44692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 5	Solid	3010A	44646
MB 140-44646/17-B ^5	Method Blank	Step 5	Solid	3010A	44646
LCS 140-44646/18-B ^5	Lab Control Sample	Step 5	Solid	3010A	44646
LCSD 140-44646/19-B ^5	Lab Control Sample Dup	Step 5	Solid	3010A	44646

SEP Batch: 44693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 6	Solid	Acid/Sulfide	
MB 140-44693/17-A	Method Blank	Step 6	Solid	Acid/Sulfide	
LCS 140-44693/18-A	Lab Control Sample	Step 6	Solid	Acid/Sulfide	
LCSD 140-44693/19-A	Lab Control Sample Dup	Step 6	Solid	Acid/Sulfide	

Eurofins TestAmerica, Knoxville

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Metals

Analysis Batch: 44696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 4	Solid	6010B SEP	44645
MB 140-44603/17-B	Method Blank	Step 4	Solid	6010B SEP	44645
LCS 140-44603/18-B	Lab Control Sample	Step 4	Solid	6010B SEP	44645
LCSD 140-44603/19-B	Lab Control Sample Dup	Step 4	Solid	6010B SEP	44645

Prep Batch: 44697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 7	Solid	Residual	
MB 140-44697/17-A	Method Blank	Step 7	Solid	Residual	
LCS 140-44697/18-A	Lab Control Sample	Step 7	Solid	Residual	
LCSD 140-44697/19-A	Lab Control Sample Dup	Step 7	Solid	Residual	

Analysis Batch: 44734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 5	Solid	6010B SEP	44692
140-20720-1	GS-AP-MW-44 HO	Step 6	Solid	6010B SEP	44693
MB 140-44646/17-B ^5	Method Blank	Step 5	Solid	6010B SEP	44692
MB 140-44693/17-A	Method Blank	Step 6	Solid	6010B SEP	44693
LCS 140-44514/18-B ^5	Lab Control Sample	Step 2	Solid	6010B SEP	44560
LCS 140-44646/18-B ^5	Lab Control Sample	Step 5	Solid	6010B SEP	44692
LCS 140-44693/18-A	Lab Control Sample	Step 6	Solid	6010B SEP	44693
LCSD 140-44514/19-B ^5	Lab Control Sample Dup	Step 2	Solid	6010B SEP	44560
LCSD 140-44646/19-B ^5	Lab Control Sample Dup	Step 5	Solid	6010B SEP	44692
LCSD 140-44693/19-A	Lab Control Sample Dup	Step 6	Solid	6010B SEP	44693

Analysis Batch: 44784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Step 7	Solid	6010B SEP	44697
MB 140-44697/17-A	Method Blank	Step 7	Solid	6010B SEP	44697
LCS 140-44697/18-A	Lab Control Sample	Step 7	Solid	6010B SEP	44697
LCSD 140-44697/19-A	Lab Control Sample Dup	Step 7	Solid	6010B SEP	44697

Analysis Batch: 44810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Total/NA	Solid	6010B	44460
140-20720-1	GS-AP-MW-44 HO	Total/NA	Solid	6010B	44460
MB 140-44460/16-A	Method Blank	Total/NA	Solid	6010B	44460
LCS 140-44460/17-A	Lab Control Sample	Total/NA	Solid	6010B	44460
LCSD 140-44460/18-A	Lab Control Sample Dup	Total/NA	Solid	6010B	44460

Analysis Batch: 44865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Sum of Steps 1-7	Solid	6010B SEP	

General Chemistry

Analysis Batch: 43666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-20720-1	GS-AP-MW-44 HO	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: GS-AP-MW-44 HO

Lab Sample ID: 140-20720-1

Date Collected: 10/13/20 00:00

Matrix: Solid

Date Received: 10/15/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			44865	12/01/20 09:00	DKW	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			43666	10/20/20 08:01	BKD	TAL KNX
	Instrument ID: W3									

Client Sample ID: GS-AP-MW-44 HO

Lab Sample ID: 140-20720-1

Date Collected: 10/13/20 00:00

Matrix: Solid

Date Received: 10/15/20 09:45

Percent Solids: 98.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	44460	11/16/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			44810	11/25/20 11:50	KNC	TAL KNX
	Instrument ID: DUO									
Total/NA	Prep	Total			1.000 g	50 mL	44460	11/16/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			44810	11/25/20 13:28	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	44489	11/16/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	44513	11/17/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			44606	11/18/20 13:37	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	44514	11/17/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	44560	11/18/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			44644	11/19/20 13:00	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	44562	11/18/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	44602	11/19/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			44678	11/20/20 11:17	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	44603	11/19/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	44645	11/20/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			44696	11/21/20 12:11	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	44646	11/20/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	44692	11/22/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			44734	11/23/20 10:59	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	44693	11/22/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			44734	11/23/20 12:55	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	44697	11/23/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			44784	11/24/20 13:11	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: Method Blank

Lab Sample ID: MB 140-44460/16-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	44460	11/16/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			44810	11/25/20 15:17	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-44489/17-B ^4

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	44489	11/16/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	44513	11/17/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			44606	11/18/20 13:23	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-44514/17-B ^3

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	44514	11/17/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	44560	11/18/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			44644	11/19/20 12:45	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-44562/17-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	44562	11/18/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	44602	11/19/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			44678	11/20/20 11:02	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Lab Sample ID: MB 140-44603/17-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	44603	11/19/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	44645	11/20/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			44696	11/21/20 11:56	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 140-44646/17-B ^5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	44646	11/20/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	44692	11/22/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			44734	11/23/20 10:44	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 140-44693/17-A

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	44693	11/22/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			44734	11/23/20 12:41	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 140-44697/17-A

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	44697	11/23/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			44784	11/24/20 11:13	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 140-44460/17-A

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	44460	11/16/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			44810	11/25/20 11:30	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 140-44489/18-B ^5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	44489	11/16/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	44513	11/17/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			44606	11/18/20 13:27	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-44514/18-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	44514	11/17/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	44560	11/18/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			44644	11/19/20 12:50	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	44514	11/17/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	44560	11/18/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			44734	11/23/20 14:57	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-44562/18-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	44562	11/18/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	44602	11/19/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			44678	11/20/20 11:07	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-44603/18-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	44603	11/19/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	44645	11/20/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			44696	11/21/20 12:01	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-44646/18-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	44646	11/20/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	44692	11/22/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			44734	11/23/20 10:49	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-44693/18-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	44693	11/22/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			44734	11/23/20 12:46	KNC	TAL KNX
Instrument ID: DUO										

Eurofins TestAmerica, Knoxville

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-44697/18-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	44697	11/23/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			44784	11/24/20 11:18	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44460/18-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	44460	11/16/20 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			44810	11/25/20 11:35	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44489/19-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	44489	11/16/20 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	44513	11/17/20 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			44606	11/18/20 13:32	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44514/19-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	44514	11/17/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	44560	11/18/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			44644	11/19/20 12:55	KNC	TAL KNX
Instrument ID: DUO										
Step 2	SEP	Carbonate			5.000 g	25 mL	44514	11/17/20 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	44560	11/18/20 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			44734	11/23/20 15:02	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44562/19-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	44562	11/18/20 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	44602	11/19/20 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			44678	11/20/20 11:12	KNC	TAL KNX
Instrument ID: DUO										

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44603/19-B

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	44603	11/19/20 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	44645	11/20/20 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			44696	11/21/20 12:06	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44646/19-B ^5

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	44646	11/20/20 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	44692	11/22/20 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			44734	11/23/20 10:54	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44693/19-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	44693	11/22/20 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			44734	11/23/20 12:51	KNC	TAL KNX
Instrument ID: DUO										

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 140-44697/19-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	44697	11/23/20 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			44784	11/24/20 11:23	KNC	TAL KNX
Instrument ID: DUO										

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Laboratory: Eurofins TestAmerica, Knoxville

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-22
ANAB	Dept. of Energy	L2311.01	02-13-22
ANAB	ISO/IEC 17025	L2311	02-13-22
ANAB	ISO/IEC 17025	L2311	02-14-22
Arkansas DEQ	State	88-0688	06-17-21
California	State	2423	06-30-21
Colorado	State	TN00009	02-28-21
Connecticut	State	PH-0223	09-30-21
Florida	NELAP	E87177	07-01-21
Georgia (DW)	State	906	12-11-22
Hawaii	State	NA	12-11-21
Kansas	NELAP	E-10349	11-01-20 *
Kentucky (DW)	State	90101	01-01-21
Louisiana	NELAP	LA110001	12-31-12 *
Louisiana	NELAP	83979	06-30-21
Louisiana (DW)	State	LA019	12-31-20
Maryland	State	277	03-31-21
Michigan	State	9933	12-11-22
Nevada	State	TN00009	07-31-21
New Hampshire	NELAP	299919	01-17-21
New Jersey	NELAP	TN001	07-01-21
New York	NELAP	10781	03-31-21
North Carolina (DW)	State	21705	07-31-21
North Carolina (WW/SW)	State	64	12-31-20
Ohio VAP	State	CL0059	06-02-23
Oklahoma	State	9415	08-31-21
Oregon	NELAP	TNI0189	01-02-21
Pennsylvania	NELAP	68-00576	12-31-20
Tennessee	State	02014	12-11-22
Texas	NELAP	T104704380-18-12	08-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-19-00236	08-20-22
Utah	NELAP	TN00009	07-31-21
Virginia	NELAP	460176	09-14-21
Washington	State	C593	01-19-21
West Virginia (DW)	State	9955C	01-01-21
West Virginia DEP	State	345	05-01-21
Wisconsin	State	998044300	08-31-21

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

Method Summary

Client: Golder Associates Inc.
Project/Site: Plant Gorgas

Job ID: 140-20720-1

Method	Method Description	Protocol	Laboratory
6010B	SEP Metals (ICP) - Total	SW846	TAL KNX
6010B SEP	SEP Metals (ICP)	SW846	TAL KNX
Moisture	Percent Moisture	EPA	TAL KNX
3010A	Preparation, Total Metals	SW846	TAL KNX
Acid/Sulfide	Sequential Extraction Procedure, Acid/Sulfide Fraction	TAL-KNOX	TAL KNX
Carbonate	Sequential Extraction Procedure, Carbonate Fraction	TAL-KNOX	TAL KNX
Exchangeable	Sequential Extraction Procedure, Exchangeable Fraction	TAL-KNOX	TAL KNX
Metal Hydroxide	Sequential Extraction Procedure, Metal Hydroxide Fraction	TAL-KNOX	TAL KNX
Non-Crystalline	Sequential Extraction Procedure, Non-crystalline Materials	TAL-KNOX	TAL KNX
Organic-Bound	Sequential Extraction Procedure, Organic Bound Fraction	TAL-KNOX	TAL KNX
Residual	Sequential Extraction Procedure, Residual Fraction	TAL-KNOX	TAL KNX
Total	Preparation, Total Material	TAL-KNOX	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

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

TAL-KNOX = TestAmerica Laboratories, Knoxville, Facility Standard Operating Procedure.

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Client Contact
Golder Associates Inc.
5170 Peachtree Rd Bldg 100 Suite 300
Atlanta, Georgia 30326
Phone (770) 496-189

Project Name: Plant Gorgas
Site: Plant Gorgas
P O # 20146747

Project Manager: PJ Nolan
Email: pj_nolan@golder.com
Tel/Fax: +14258830777 x52646

Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day

Sample Identification	Sample Date	Sample Depth (ft)	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Moisture (%)	Sample Specific Notes:
GS-AP-MW-44 HO	10/13/2020	199.3-201.3	G	SED		N	N	X	
<i>CUSTOM SEALS CONTACT</i>									
<i>RECEIVEDS AMOUNT AT 19.2/19.26</i>									
<i>6/25 10:15:20</i>									
<i>1 CORRECTION # 77779593 9819 80</i>									



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other N/A

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: SEP Metals (Al, Fe, Li, Mn, As, Mo, Co)

Non-Hazard Blammable Skin Irritant Poison B Unknown

Return to Client Disposal by Lab Archive for _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Custody Seal No.: _____ Cooler Temp. (°C): Obs'd: _____ Cor'd: _____ Therm ID No.: _____

Relinquished by: Chris Lowell (TD Feb 20) Company: Golder Date/Time: 12/11/20 (16:00)

Relinquished by: _____ Company: _____ Date/Time: _____

Relinquished by: _____ Company: _____ Date/Time: _____

Received by: Ryan Henry Company: EPA SWX Date/Time: 11-15-20 09:45

Received by: _____ Company: _____ Date/Time: _____

Received in Laboratory by: _____ Company: _____ Date/Time: _____



EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			<input type="checkbox"/> Containers, Broken	4
2. Were ambient air containers received intact?			/	<input type="checkbox"/> Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			<input type="checkbox"/> Yes <input type="checkbox"/> NA	10
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : <u>5166</u> Correction factor: <u>0.0</u>	/			<input checked="" type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			<input type="checkbox"/> Containers, Broken	
6. Were samples received in appropriate containers?	/			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	/			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			<input type="checkbox"/> COC; No Date/Time; Client Contacted	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?	/			<input checked="" type="checkbox"/> Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	/			<input type="checkbox"/> COC No tests on COC	pH test strip lot number: _____
13. Is the matrix of the samples noted?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			<input type="checkbox"/> COC Incorrect/Incomplete	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	/			<input type="checkbox"/> Holding Time - Receipt	Preservative: _____ Lot Number: _____
16. Were samples received with correct chemical preservative (excluding Encore)?			/	<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Exp Date: _____ Analyst: _____
17. Were VOA samples received without headspace?			/	<input type="checkbox"/> Headspace (VOA only) <input type="checkbox"/> Residual Chlorine	Date: _____ Time: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/		
19. For 1613B water samples is pH<9?			/	<input type="checkbox"/> If no, notify lab to adjust	
20. For rad samples was sample activity info. Provided?			/	<input type="checkbox"/> Project missing info	
Project #: <u>14005984</u> PM Instructions: _____					
Sample Receiving Associate: <u>Kanglana</u> Date: <u>10-15-20</u>					

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