2022 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ALABAMA POWER COMPANY
PLANT GORGAS
GYPSUM POND

July 31, 2022

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering

CERTIFICATION STATEMENT

This *2022 Semi-Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Gorgas Gypsum Pond* has been prepared in accordance with the United States Environmental Protection Agency's coal combustion residual rule (40 CFR Part 257, Subpart D), ADEM Admin. Code Ch. 335-13-15, and Part E of ADEM Administrative Order No. 18-096-GW, under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.

7/31/2022

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7/31/2022

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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 2022 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2022 semi-annual assessment groundwater monitoring activities at the Plant Gorgas Gypsum 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 Gypsum Pond is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

The CCR unit began the monitoring period in assessment monitoring pursuant to § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6). 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. However, an SSL has not been observed since August 2020 at the Site.

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 to ADEM on December 17, 2021, based upon historical SSLs.

The following summarizes results and activities conducted during the first semi-annual monitoring event of 2022:

- Statistical evaluation of the assessment monitoring data did not identify SSLs for Appendix IV constituents in Site compliance wells during the first semi-annual event.
- Began implementation of MNA with the acquisition of MNA parameters required for establishment of baseline conditions and as elements of geochemical modeling and monitoring.
- Submitted the Corrective Action Groundwater Monitoring Program on March 15, 2022, which described the selected remedy (MNA) and monitoring requirements.

- Performed and Alternate Source Demonstration (ASD) in site monitoring wells exhibiting elevated concentrations of lithium. The ASD concluded that lithium is naturally occurring in groundwater and is not related to a release from the CCR unit.

The CCR unit concluded the monitoring period in assessment monitoring. Currently, there are no existing SSLs in Site groundwater, and the ASD presented in this report, provides strong evidence accounting for elevated lithium concentrations in Site stratigraphy and groundwater. Based upon historical SSLs, the Corrective Action Groundwater Monitoring Program was prepared to meet § 257.98 and ADEM Admin. Code r. 335-13-15-.06(9) to detect potential downgradient changes in groundwater quality and assess the efficacy of the selected groundwater corrective action remedies. This Monitoring Program has been developed to meet the requirements of CFR § 257.98(a)(1) and ADEM Admin. Code r. 335-13-15-.06(9)(a)1. and will supplement the ongoing CCR compliance groundwater monitoring currently being performed at the Site.

However, the pending ASD review decision by the Department has implications on future actions for the site. If approved, the site will return to assessment monitoring.

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

- Evaluation of recently collected MNA parameter data and ongoing compliance monitoring to determine the effectiveness of the selected remedies in meeting long-term groundwater protection standards at the site.
- Conduct a presentation and or discussion with ADEM centered upon lithium occurrences and mobilization to Site groundwater as documented in the results of the ASD included with this report.
- Conduct the second semi-annual assessment monitoring event in 2022 and submit the annual groundwater monitoring and corrective action report summarizing the findings to ADEM by January 31, 2023.

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Monitoring Period Summary
Plant Gorgas - Gypsum Pond

Assessment Monitoring Inintiated: January 15, 2018
Monitoring Period: January 1 - June 30, 2022
Beginning Status: Assessment
Ending Status: Assessment

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8
Calcium	GS-GSA-MW-3 and GS-GSA-MW-8
Chloride	GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8
Fluoride	None
pH	MW-2 (upgradient), MW-4 (upgradient), and GS-GSA-MW-3
Sulfate	GS-GSA-MW-4
TDS	GS-GSA-MW-4

Appendix IV SSLs

Parameter	Wells
No Significant Results	

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

Assessment of Corrective Measures & Groundwater Remedy

Assessment of Corrective Measures

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

Groundwater Remedy

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

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ABBREVIATIONS

ACM	Assessment of Corrective Measures
ADEM	Alabama Department of Environmental
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
CEC	cation exchange capacity
CFR	Code of Federal Regulations
COC	chain of custody
COI	constituents of interest
CSM	conceptual Site model
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
MNA	monitored natural attenuation
MSL	mean sea level
MW-	denotes “Monitoring Well”
NCDS	National Coal Data System
NELAP	National Environmental Laboratory
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SEM	scanning electron microscopy
SM	Standard Method(s)
SSE	selective sequential extraction
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

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 ADEM Administrative Order (AO) No. 18-096-GW, this *2022 Semi-Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document 2022 semi-annual assessment groundwater monitoring activities at the Plant Gorgas Gypsum Pond (Gypsum 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 18-096-GW. Semi-annual assessment monitoring and associated reporting for the Gypsum 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).

Semi-Annual Groundwater Monitoring and Corrective Action Reports include an update on groundwater delineation activities completed since the submittal of the Facility Plan for Groundwater Investigation (November 13, 2018) and corrective action activities completed since the submittal of the Corrective Action Groundwater Monitoring Program (February 28, 2022).

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 parameters were identified at the Gorgas Gypsum Pond during the first semi-annual sampling event conducted in 2021; however, no SSLs of Appendix IV parameters were identified. 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.

A Groundwater Remedy Selection Report was prepared and submitted on December 17, 2021, to meet the requirements of 40 CFR § 257.97, ADEM Admin. Code r. 335-13-15-.06(8), and Part C of ADEM Administrative Order AO 18-095-GW. Subsequently, within 90 days of remedy selection, a Corrective Action Groundwater Monitoring Program was developed and submitted to ADEM on February 28, 2022.

In accordance with § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6), APC will continue semi-annual assessment monitoring, including all monitoring wells in the certified groundwater monitoring system and any well installed to characterize the horizontal and vertical extent of SSLs.

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. Plant Gorgas lies in 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. Section/Township/Range data are based on visual inspection of USGS topographic quadrangle maps (USGS, 1975; USGS, 1983) and GIS project boundary files provided by SCS.

The Gypsum Pond is located west-northwest of the main plant and to the north of the Black Warrior River. **Figure 1**, **Site Location Map**, depicts the location of the Plant and Gypsum 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 and Baker Creek to over 500 feet above MSL along a northwest-trending ridge approximately 1,000 feet northwest of the plant and in upland areas on the western part of the property. Generally, the land surface slopes from north to south and towards the Mulberry Fork of the Black Warrior River. **Figure 2**, **Site Topographic Map**, provides the topography of the Site.

Two natural surface water bodies drain Plant Gorgas property. Baker Creek flows from northwest to southeast through the central portion of the plant before draining into the Mulberry Fork of the Black Warrior River. Mulberry Fork flows from east to west as it bends around the southern border of the plant property.

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. Deeper stratigraphy is marked by carbonates, shales, chert, and sandstones of Mississippian to Cambrian in age (Raymond et al., 1988). Plant Gorgas is directly underlain by rocks belonging to the Pratt Coal Group (Ward II et al., 1989) of the Upper Pottsville Formation. In general, the Pratt Group consists of mudstone, shale, fine-grained sandstone, and interbedded coal in fining-upward sequences. 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 (0.5-1.0 degrees) to the south and south-southwest. **Figure 3**, **Site Geologic Map**, illustrates the surface geology at the Site and neighboring areas.

Strip mining was conducted over a large portion of the area down to the American seam. As a result, the overburden around the Gypsum Pond is dominated by backfilled mine overburden (mine spoils) and is characterized by weathered shale and sandstone boulders with lenses of fine sediments and small amounts of coal fragments and coarse sediments. Geologic logs generated during various on-Site investigations indicate that the depth to rock varies significantly, ranging from as little as 20 feet (un-mined areas) to as much as 155 feet below ground surface (BGS). Beneath the Gypsum Pond, subsurface geology is likely characterized by thin remnants of mine backfill and un-mined portions of the Pratt Coal Group consisting predominantly of mudstone and sandstone. **Figures 4A-4E**, **Geologic Cross-Sections,** illustrate the geologic layering beneath the Site.

Two water-bearing zones are present beneath the Site: (1) the mine overburden/top-of-rock interface, and (2) the underlying Pottsville aquifer system. The mine overburden/top of rock interface is usually a thin zone of saturation overlying rock and is not laterally continuous across all portions of the Site. Depth to this zone generally ranges from 100 to 115 feet beneath 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 aquifer system is largely through infiltration of precipitation and to a lesser extent, downward seepage of river water at hydraulically favored locations. Recharge is accommodated largely by fracture-enhanced permeability. Major recharge zones to the Pottsville aquifer system 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 the average of other coal basins (Bragg et al., 1997). Of the U.S. coal analyses for arsenic where there 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 from the 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:

- Arsenic – 0 to 384.1 ppm (average of 43.8 ppm).
- Boron – 20.8 to 114 ppm (average of 49 ppm).
- Cobalt – 2.79 to 31.2 ppm (average of 18.6 ppm).
- Molybdenum – 0 to 4.38 ppm (average of 1.06 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.

Furthermore, 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 principal aquifer system from a local and regional perspective is the Pottsville aquifer system. The Pottsville aquifer system is the uppermost aquifer beneath the Site. In the Pottsville aquifer system, two types of secondary porosity were observed to yield groundwater: (1) fractured intervals and (2) bedding plane weaknesses associated with fissile, siderite-banded, iron-claystone sequences. Fractured intervals are sporadic across the Site and tend to occur with greater density in the upper 100 feet of rock. The upper portions of the Pottsville aquifer system beneath the proposed disposal facilities indicate unconfined to confined, fractured, and extremely anisotropic conditions. The Pottsville aquifer system functions as a series of confined to semi-confined water producing zones (aquifers) because of the large permeability contrasts within the strata (Stricklin, 1989). Depth to groundwater varies significantly across the Site and is wholly dependent on encountering a fractured interval or zone of fissile iron-claystone.

Beneath and adjacent to the Gypsum Pond, groundwater yielding zones are now generalized into 5 discrete flow systems. They are the: (1) Upper Water-Table Flow System, (2) Intermediate Flow System 1, (3) Intermediate Flow System 2, (4) Intermediate Flow System 3, and (5) Deep Flow System.

The Upper-Water Table Flow System exists only across central and southern portions of the Site and generally is comprised of shallow, saturated overburden, overburden-rock transition zone, or upper weathered rock (~ 20 to 40 feet below ground surface). Where present, this flow system appears to be

vertically located lateral to or above the base of the Gypsum Pond. To the north and east of the Gypsum Pond, this flow system may not be present due to historical mining activities (lack of recharge, lack of overburden materials).

Intermediate and deep flow systems at the Site generally are comprised of discrete fracture intervals, bedding planes, and minor coal seams in the lower Pratt Coal Group and Gillespy Coal Group. Characteristics of these flow systems are: (1) variable, sporadic groundwater saturation and yield, (2) appearance of semi-confining to confining conditions between flow systems, (3) vertical downward gradients across northern and central areas of the Site, and (4) the converge of groundwater elevations south of the Gypsum Pond near "Blue Pond".

Monitoring wells installed at the mine overburden/top of rock interface monitor the quality of water passing to the Pottsville Formation. This water quality itself can be highly variable and enriched in trace metals owing to the heterogeneity of mine backfill deposits and mineralogy (e.g., clay minerals and sulfides). 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 likely 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

With the addition of piezometers and delineation wells to the Site monitoring program, groundwater flow is now grouped into five flow systems: (1) Upper Water-Table Flow System, (2) Intermediate Flow System 1, (3) Intermediate Flow System 2, (4) Intermediate Flow System 3, and (5) Deep Flow System.

For the Upper Water-Table Flow System, groundwater flow at the Site is a subdued replica of the natural topography where gravity is the dominant force driving flow. The general direction of groundwater flow in this system is towards the south. However, locally, flow may also occur towards the southeast and southwest mimicking the natural topography of the Site. West of the gypsum pond, flow is (A) towards northern and central portions of the gypsum pond or (B) lateral to southern portions of the gypsum pond. Flow converges towards "Blue Pond" south of the gypsum pond and to the Black Warrior River further south.

Intermediate flow systems and the deep flow system beneath the Site display similar flow patterns. Each system is interpreted to generally flow south to south-southeast across the Site. Hydraulically, these systems appear semi-confined to confined as groundwater elevations display vertical separation and downward vertical gradients. Flow through these systems likely converge to similar hydraulic potential near "Blue Pond" south of the Plant Gorgas Gypsum Pond.

3.3 GROUNDWATER MONITORING SYSTEM

Pursuant to § 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 Gypsum Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps. 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 designations. As described in the Site Groundwater Monitoring Plan, modifications to the well network or designation must first be approved by ADEM.

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

3.3.1.1 Upgradient Wells

To evaluate upgradient well locations at the Site, groundwater elevations and CCR indicator parameters were reviewed. Attempts at installing upgradient well locations west, north, and east of the Gypsum Pond were unsuccessful because water-bearing zones were not encountered. Therefore, four locations upgradient of the nearby Plant Gorgas landfills were selected to provide background groundwater quality data. These locations were selected based on the facts that the wells are proximal to the Site, have not been affected by a CCR unit release, and are installed in similar geology. Each of these sites is located within the same coal group sequence of the Pottsville and contains backfilled mine material overburden. Monitoring well locations MW-1, MW-2, MW-3, and MW-4 serve as upgradient locations for the Gypsum Pond. **Table 1a,**

Compliance Monitoring Well Network Details, summarizes the monitoring well construction details and the lithology (flow system) adjacent to the screened interval for upgradient compliance wells at the Plant Gorgas Gypsum Pond

3.3.1.2 Downgradient Wells

The absence of water-bearing zones at the Site during Site investigation influenced the number and location of downgradient monitoring wells. Monitoring well locations GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8 are used as downgradient locations for the Gypsum Pond. The three downgradient monitoring well locations were installed in the valley south of the Gypsum Pond and at lower elevations. These locations capture groundwater draining through the valley occupied by the Gypsum Pond. Because the valley is narrow from west to east (approximately 800 to 1,200 feet across), these wells intercept preferential draining for the Site and are sufficient to monitor groundwater downgradient of the Gypsum Pond. **Table 1a** summarizes the monitoring well construction details and the lithology (flow system) adjacent to the screened interval for downgradient compliance wells at the Plant Gorgas Gypsum Pond

3.3.1.3 Delineation Wells

Pursuant to § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-096-GW, additional wells were installed to characterize the horizontal and vertical extent of groundwater protection standard (GWPS) exceedances identified during assessment monitoring. Three phases of field investigation have occurred since late 2018 to explore potential impacts to groundwater. Field work for Phase III efforts concluded in early July 2020.

Delineation wells are identified on **Figure 5**. All delineation wells are sampled semi-annually as part of the semi-annual assessment groundwater monitoring program. **Table 1b, Delineation Well Network Details**, summarizes construction details and the lithology (flow system) adjacent to the screened interval.

3.3.1.4 Piezometers

Horizontal delineation well GS-GSA-MW-10H was converted from delineation location to piezometer. This well location did not produce sufficient groundwater yield for well development and low-flow sampling methods. Locations GS-GSA-PZ-2A, GS-GSA-MW-1, and GS-GSA-MW-2 recently changed to water-level only piezometers for the purpose of better depicting groundwater flow direction. These locations were installed in 2015 but did not produce sufficient groundwater yield for well development or low-flow sampling methods.

Locations GS-GSA-PZ-16 through GS-GSA-PZ-22 were installed in May 2020 to be used as water-level only piezometers. However, locations GS-GSA-PZ-17 through GS-GSA-PZ-22 have been sampled semi-

annual since August 2020 as part of the semi-annual monitoring events for purposes of evaluating as potential upgradient locations. Some of these piezometers were installed in the vicinity of a previously unknown strip-mined coal storage area, and further historical use research of the area is ongoing. These locations will continue to be sampled and evaluated. It is anticipated that after 4 or 5 sampling events and further study, a recommendation will be made to continue with water-level only monitoring or potentially request permission to redesignate subsets that appear as suitable upgradient locations.

Piezometers are presented on **Figure 5**. Well construction and flow system details are summarized in **Table 1c, Piezometer Well Network Details.**

3.3.1.5 Monitoring Well Replacement and Abandonment

During the current monitoring period, no monitoring well replacement or abandonment activities occurred.

3.4 GROUNDWATER MONITORING HISTORY

In accordance with § 257.94(b) and ADEM Admin. Code r. 335-13-15-.06(5)(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, APC initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in February 2018, within 90 days of initiating the assessment monitoring program. Semi-annual assessment sampling continues to the present.

The Gypsum Pond entered an assessment monitoring program pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a) in January 2018. Statistical evaluations of 2018 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS, and the Site performed an Assessment of Corrective Measures. Pursuant to § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO No. 18-096-GW, delineation wells 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 July 2020. These wells, along with the compliance monitoring well network, are sampled semi-annually.

3.4.1 Available Monitoring Data

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

3.4.2 Historical Groundwater Flow

Groundwater flow systems and flow pattern interpretations have changed over the years as additional hydrogeologic data has become available in the form of piezometers and delineation wells. The following factors contribute to complex Site hydrogeology: (1) Historic strip mining of uppermost aquifer (Pratt and American Coals), (2) potential dewatering of historic mine Site, (3) limited area of local recharge and disturbance of recharge zone, (4) variability of overburden material type (mine spoil vs natural), layering, and thickness, (5) variability in groundwater yield/production, (6) overall relatively low groundwater recharge rates to wells, and (7) overall lack of groundwater yield north and east of the Gypsum Pond. Groundwater data and the discretization of intermediate flow systems will continue to be evaluated over the coming sampling events and interpretations may be modified after these evaluations or if new data is available. Tables summarizing groundwater elevations from all groundwater monitoring events are included in **Appendix B, Historical Groundwater Elevations Summary**.

3.4.3 Monitoring Variance

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 generally, 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 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 changes in geochemical facies in 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 at Plant Gorgas are equipped with a dedicated pump. 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 for the monitoring events are included in **Appendix C, Laboratory and Field Records**.

3.5.2 Sample Preservation and Handling

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

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

3.5.3 Chain of Custody

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

3.5.4 Laboratory Analysis

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

3.5.5 Monitoring Period Sampling Events

As required by § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the monitoring period. The first semi-annual assessment monitoring event took place between January 24, 2022 and January 24, 2022. A re-sampling event for lithium took place on May 19th, 2022 at well GS-GSA-MW-4 where a potential outlier was observed in results from the January 2022 sampling event.

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

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

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

4.0 GROUNDWATER ELEVATIONS AND FLOW

During the first semi-annual sampling event groundwater elevations ranged from 256.45 to 430.40 feet NAVD88 (feet above reference 1988 North American Vertical Datum). **Figure 6A, Potentiometric Surface Contour Map – Water-Table (January 24, 2022)**, **Figure 6B, Potentiometric Surface Contour Map – Intermediate 1 (January 24, 2022)**, **Figure 6C, Potentiometric Surface Contour Map – Intermediate 2 (January 24, 2022), Figure 6D, Potentiometric Surface Contour Map – Intermediate 3 (January 24, 2022),** and **Figure 6E, Potentiometric Surface Contour Map – Deep Interval (January 24, 2022)** depict groundwater elevations and inferred groundwater flow direction from higher elevation to lower.

As shown on **Figure 6A,** groundwater appears to flow towards the narrow valley occupied by the Gypsum Pond from the north, west, and east of the Site as well as in a general south to south-southeast pattern. Groundwater in the valley flows southward towards the Mulberry Fork of the Black Warrior River. Groundwater in this upper flow system likely seeps slowly downward (recharges) into underlying Pottsville Strata.

As shown on **Figures 6B** through **6E**, the groundwater flow patterns in lower Pratt Coal Group and Gillespy Coal Group strata are interpreted to be less influenced by local topographic relief displaying a south-southeast flow pattern converging on "Blue Pond" and likely, the Black Warrior River further south. Groundwater flow patterns in Intermediate Flow Systems 1 and 2 likely display some degree of localized westerly and easterly flow towards the southern Gypsum Pond as compliance well GS-GSA-MW-3 as well as piezometers GS-GSA-MW-1 and GS-GSA-MW-2 could also potentially be grouped into Intermediate Flow System 1 based upon stratigraphy and elevations screened (previous report interpretation and presentation).

Groundwater elevations and vertical gradients between flow systems at the Site suggest semi-confining to confining conditions with downward vertical gradients further north and some upward vertical gradients notable in south of the sedimentation pond and proximal to "Blue Pond". This data indicates that areas south of the sedimentation pond and around "Blue Pond" are mixing zones where shallow flow systems mix with older, more mineralized groundwater discharging from deeper flow systems. Sources of deeper upwelling groundwater may include underground Mary Lee and American coal mines upgradient and adjacent to the Site.

Piezometer, GS-GSA-PZ-21, appears to fit a 6th discrete zone between the Water Table Flow System and Intermediate Flow System 1 and was not factored into contours. Piezometer, GS-GSA-PZ-2A, was not used in groundwater elevation contouring as it was effectively dry.

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

4.1 GROUNDWATER FLOW VELOCITY CALCULATION

Because the geology at the Gypsum Pond is not homogeneous or isotropic with respect to groundwater flow, groundwater velocity calculations using derivations of Darcy's Law or other methods 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.

The hydrogeologic characteristics of mine spoils and fractured rock can produce preferential groundwater flow paths, so groundwater velocity is much more variable than in uniform porous media such as sand. These flow paths correspond to more permeable lenses in mine spoil and fractures, zones of fracture concentration, bedding planes, and other discontinuities in the rock. Lateral or vertical transitions from mine spoils to natural overburden materials also adds complexity to groundwater velocity and flow paths. For mine spoil materials, slug testing provided horizontal hydraulic conductivities for the uppermost aquifer between 5.11×10^{-3} centimeters per second (cm/sec) and 2.47×10^{-4} cm/sec.

At the Gorgas Ash Pond, slug testing provided horizontal hydraulic conductivities in flow zones of the Pratt Coal Group 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).

Slug and packer testing results included in this discussion, as a whole, provide a bias towards higher permeability. This is because intervals tested were largely selected based upon observations of yield in borehole geophysics, hydrophysics, or field observations (i.e., no yield or poor yielding zones not often tested/quantified). The data reviewed suggests that typical Pottsville flow zones will have hydraulic conductivities between 10^{-4} or 10^{-5} cm/sec and will be separated vertically (and sometimes laterally) by

lower permeability mudstones, shales, and channel sandstones which will typically provide hydraulic conductivities in the range of 10^{-6} and 10^{-7} cm/sec. Therefore, groundwater flow velocity at the Site will be highly variable.

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 RPD is below 20%, the difference is considered acceptable and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 4a, Relative Percent Difference (RPD) Calculations,** provides the RPDs for sample and sample duplicates during first semi-annual sampling event of 2022. RPDs were below 20% for the first semi-annual sampling event of 2022.

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

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

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

5.2 STATISTICAL METHODOLOGY AND TESTS

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

5.2.1 Appendix III Evaluation

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

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

The following adjustments are also applicable to the statistical analysis at the Site:

- 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 used in the statistical analysis. The reporting limit used 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 the 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 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 generally occurring after the second semi-annual sampling event of each biennial year. The most recent GWPS update was after the second semi-annual sampling event in the fall of 2021. Data from upgradient wells collected between updates may still be used to support ASDs if merited.

5.3 STATISTICAL EXCEEDANCES

Analytical data from the first semi-annual monitoring event of 2022 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 had returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

5.3.1 Appendix III Constituents

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

5.3.2 Appendix IV Constituents

Table 5, **Summary of Background Levels and Groundwater Protection Standards**, summarizes the background limit established at each monitoring well and the GWPS. A summary table of the statistical limits accompanies the prediction limits in **Appendix D**. As discussed in **Sections 3.3.1.1** and **5.3**, Site GWPS were updated after the Fall 2021 sampling event.

5.3.2.1 First Semi-Annual Monitoring Event

Statistical analysis of Appendix IV data did not identify any Appendix IV SSLs during the first semi-annual monitoring event of 2022 in Site compliance wells. **Table 6, First Semi-Annual Monitoring Event Analytical Summary** provides a summary of all constituents for the first semi-annual sampling event of 2022.

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 concentrations over Site GWPS during the first semi-annual sampling event:

- GS-GSA-MW-13H: Arsenic
- GS-GSA-MW-14H: Lithium

Elevated arsenic has historically been encountered in well GS-GSA-MW-13H during semi-annual sampling events. However, these elevated concentrations and GWPS exceedances are not the result of an impact to groundwater from the Gypsum Pond. Wells immediately downgradient of the Gypsum Pond, as well as delineation wells between the Gypsum Pond and GS-GSA-MW-13H, have historically been non-detect or detected at only trace concentrations. This absence of arsenic in other wells is notable, because if an arsenic impact were related to the Gypsum Pond, the highest concentrations would be expected closer to the Gypsum Pond and diminish to the south in the direction of groundwater flow away from the facility. The observation described in this report is the opposite of that scenario.

Elevated lithium has historically been encountered in well GS-GSA-MW-14H during semi-annual sampling events. However, these elevated concentrations and GWPC exceedances are not the result of a release from the Gypsum Pond. As part of delineation efforts at the site, an alternate source demonstration (ASD) has been prepared to address the occurrence of lithium in groundwater at the site, including at horizontal delineation well GS-GSA-MW-14H. As discussed in the ASD, included as **Appendix E, Alternate Source Demonstration – Lithium,** boron isotope analysis was performed at GS-GSA-MW-14H in addition to a number of other wells at the site. Boron isotopic signatures have been successfully demonstrated to fingerprint CCR sources in groundwater with positive (enriched) $\delta^{11}B$ signatures typically indicating meteoric or natural sources of boron (e.g., 1997, Nigro et al., 2016, Ruhl et al., 2014, Williams and Hervig, 2014). As described in the ASD, boron isotopic composition demonstrates a fingerprint of meteoric waters rather than migration of CCR leachate with GS-GSA-MW-14H exhibiting a $\delta^{11}B$ signature of 11.6‰. In addition to boron isotopic signatures, GS-GSA-MW-14H also exhibits relatively low pH and high ORP compared to other wells at the site. Analysis performed on rock core samples collected at the site as part of the ASD included sequential extraction procedure, whole rock analysis, total metals analysis, and other methods which identified lithium is most commonly associated with the exchangeable fraction (i.e., mobilized under low pH conditions) and the oxidizable (iron-manganese) faction (i.e., mobilized by oxidation). The conditions in this well suggest that lithium is derived from natural sources. A full detailed analysis included analytical reports in included in **Appendix E.**

5.3.2.2 Additional Upgradient Piezometers

Piezometers GS-GSA-PZ-16 through GS-GSA-PZ-22 were installed in May 2020 as part of Phase III delineation efforts. These wells were intended to serve as potentially upgradient wells for the Site. A review of historical aerial photography indicated that the wells were installed in the vicinity of a former strip-mined coal storage area. Analytical results compare with previously referenced publications that document elevated trace metals in Pottsville and Pottsville coal strata as discussed in **Section 3.2.1**. Additional historical land use research of the area needs to be completed prior to further recommendations.

During the first 2022 semi-annual monitoring event, an exceedance for arsenic were observed in GS-GSA-PZ-22. Arsenic concentrations at this location have increased each of the last four sample events indicating that there is likely an existing source of arsenic upgradient of the Gypsum Pond that is leaching to groundwater. Arsenic concentrations in upgradient piezometers are otherwise decreasing in concentration.

Average lithium concentrations from these upgradient piezometers show that lithium is either naturally occurring at elevated concentrations and or historic mining related activities enhanced lithium concentrations. Average lithium concentrations observed in upgradient piezometers are:

- GS-GSA-PZ-17: 0.7575 mg/L
- GS-GSA-PZ-18: 0.3650 mg/L
- GS-GSA-PZ-19: 0.0850 mg/L
- GS-GSA-PZ-20: 0.1250 mg/L
- GS-GSA-PZ-22: 0.0672 mg/L
- GS-GSA-PZ-21: 0.02 mg/L.

Limited data from these wells tend to show seasonality where concentrations are higher during late summer sampling events and lower during the late winter/early spring. This pattern is most easily observed in data GS-GSA-PZ-17 and GS-GSA-PZ-18 and may reflect a delayed response to elevated rainfall during the wetter season months in the spring. Lithium concentrations in GS-GSA-PZ-17 range from 1.15 to 1.39 mg/L in the late summer and 0.20 to 0.29 mg/L in the late winter. Similarly, though less pronounces, lithium concentrations in GS-GSA-PZ-18 range from 0.42 to 0.44 mg/L in the late summer and 0.25 to 0.35 mg/L in the late winter. Aside from GS-GSA-PZ-17, lithium concentrations in upgradient piezometers appear to be relatively stable.

Figure 7, Arsenic and Lithium Concentrations Map (January 2022) depicts GWPS exceedances in Site delineation wells from the first semi-annual sampling event of 2022.

6.0 ALTERNATE SOURCE DEMONSTRATION

As part of a comprehensive study into the occurrence of lithium in site groundwater, and ASD was conducted that demonstrated that the SSLs for lithium in site monitoring wells are the result of natural variation in groundwater quality driven by naturally occurring lithium in clay minerals in aquifer solids. Mobilization of lithium to groundwater primarily occurs with the weathering of mudstone and clay-rich mine spoils that constitute significant portions of the subsurface overburden profile at the Site. The ASD report was prepared to address historical SSLs for lithium in the following downgradient compliance monitoring wells:

- GS-GSA-MW-3
- GS-GSA-MW-4

The ASD report was also prepared to address the GWPS exceedances for lithium in the following vertical and horizontal delineation wells:

- GS-GSA-MW-3V
- GS-GSA-MW-9V
- GS-GSA-MW-12H
- GS-GSA-MW-14H

During the most recent groundwater monitoring event (January 2022), no SSLs for lithium were observed in downgradient monitoring wells, and one lithium GWPS exceedance was observed in horizontal delineation well GS-GSA-MW-14H (0.430 milligrams per liter (mg/L)). Thus, lithium concentrations reflect temporal variability in groundwater flow conditions in the overburden mine spoils.

Based on evaluation of site data, lithium occurs in the overburden and bedrock aquifers at concentrations significantly greater than the range of average reported concentration in the earth's crust and groundwater conditions support the mobility of lithium from the aquifer solids into groundwater at the Site. As such, this ASD demonstrates that the SSLs for lithium in the aforementioned wells are not the result of a release from the Plant Gorgas Gypsum Pond. Therefore, routine groundwater monitoring will continue at the Site and no further action, such as implementing corrective action or further delineation in these areas, is necessary.

In addition to serving as an ASD for historical SSLs in compliance wells and exceedances in delineation wells, this report also provides a comprehensive study documenting geogenic sources of lithium at the Site,

and Pottsville Formation. as well as mechanisms for mobilization to groundwater. As such this study report may be referenced in explanation or guidance for potential futures SSLs or GWPS exceedances.

The ASD report, along with additional analytical data, is included as **Appendix E** to this semi-annual groundwater monitoring and corrective action report.

7.0 GROUNDWATER ASSESSMENT AND CORRECTIVE ACTION

As required by Part E of the Order (AO No. 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 the 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. 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 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 (February 2019 – August 2019)

Phase I was conducted between February 2019 and August 2019. **Table 1c** and **Figure 5** present details and locations of delineation wells installed during this phase. The following summarizes all activities that were completed during Phase I of groundwater delineation at the Site:

- Installed three horizontal delineation wells (GS-GSA-MW-9H, GS-GSA-MW-10H, and GS-GSA-MW-11H) and two vertical delineation wells (GS-GSA-MW-3V and GS-GSA-MW-4V) between February 3, 2019, and February 25, 2019.

- Developed new delineation wells between February and March 2019. Horizontal delineation wells MW-10H did not yield sufficient water and did not meet successful criteria for well development or sampling.
- Sampled groundwater from four successfully developed delineation wells between March 4, 2019, and March 5, 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.
- On December 30, 2019, provided the Department with a response to comments received from the Department on November 14, 2019.

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 October 2019 to March 2020. The following summarizes all activities that were complete during Phase II of groundwater delineation at the Site:

- Completed semi-annual assessment sampling events in October 2019 and February 2020.
- Installation of two horizontal delineation wells south-southwest of the Gypsum Pond (GS-GSA-MW-12H and GS-GSA-MW-13H).
- Installation of one vertical delineation well (GS-GSA-MW-8V) off-set from existing compliance well GS-GSA-MW-8.
- Sampling of compliance wells, Phase I delineation wells, and Phase II delineation wells in October and November 2019.
- Survey of eleven (11) piezometers previously installed at the Site in 2015 or prior to help constrain Site groundwater flow conditions. Eight of these locations were dry or had less than 1 foot of groundwater and were not included on maps to improve readability.

- A preliminary review of potentiometric data and analytical data revealed the need for a Phase III investigation to expand delineation efforts and provide additional Site characterization data.
- Submitted a Semi-Annual Progress Report documenting groundwater investigation activities on March 30, 2020.

Phase III – Groundwater Investigation (February 2020 – August 2020)

Following a review of data gathered from the Phase I and Phase II Investigations, additional groundwater investigation was necessary to delineate Appendix IV constituents at the Gypsum Pond. Phase III was conducted between the dates of May 2, 2020, and June 11, 2020. The following summarizes all activities that were complete during Phase II of groundwater delineation at the Site:

- Installed three vertical delineation wells (GS-GSA-MW-9V, GS-GSA-MW-12V, and GS-GSA-MW-23VA) between May 12 and June 11, 2020.
- Installed two horizontal delineation wells (GS-GSA-MW-14H and GS-GSA-MW-15H) between May 4, 2020, and May 5, 2020. Horizontal delineation well GS-GSA-MW-15H did not yield sufficient water for development and sampling and will be utilized as water-level only piezometer.
- Installed seven additional piezometers (GS-GSA-PZ-16, GS-GSA-PZ-17, GS-GSA-PZ-178, GS-GSA-PZ-19, GS-GSA-PZ-20, GS-GSA-PZ-21, and GS-GSA-PZ-22) between May 2, 2020, and May 31, 2020.
- Completed semi-annual assessment groundwater sampling event between August 3, 2020, and August 5, 2020.
- Submitted a Semi-Annual Progress Report documenting groundwater Investigation Activities on September 30, 2020.

APC responded to the February 3, 2021, ADEM Semi-Annual Progress and Groundwater Delineation Reports comments on March 5, 2021. Additionally, APC responded to the January 20, 2021, ADEM Groundwater Monitoring plan comments letter and included a Supplemental Site Hydrogeologic Characterization Report on March 8, 2021. The second revised Groundwater Monitoring plan was submitted to ADEM on March 15, 2021.

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

gypsum material was conducted from near the surface of the Gypsum Pond. Samples were collected based upon physical characteristics and subject to leaching using the Toxicity Characteristic Leaching Procedure (TCLP) and the Synthetic Precipitation Leaching Procedure (SPLP). The extract from each leach test was analyzed for arsenic, barium, cadmium, chromium, mercury, lead, and selenium. Results from the sample collected did not exceed GWPS for analyzed constituents.

Results from leachability testing were included in the *Semi-Annual Progress and Delineation Report* for the Plant Gorgas Gypsum Pond, submitted September 30, 2020.

During the previous monitoring period in October 2021, samples were collected from the sedimentation pond, the clear pool, and the emergency storage pond downgradient of the Gypsum Pond**.** Leachate from the dewatering of the Gypsum Pond is transported downgradient to the sedimentation pond for treatment. While it is not a direct comparison to porewater or the gypsum material itself, leachate from the Gypsum Pond can be used as a proxy to evaluate the nature of the source and what constituents may be leachable from the gypsum. These samples were collected in support of an Alternate Source Demonstration (ASD) for lithium at the site.

Samples from the three ponds were analyzed for Appendix III and Appendix IV constituents besides combined radium. Because of the treatment process, the sample collected from the sedimentation pond (GS-GSA-SP-3) is most representative of leachate from the Gypsum Pond. Results from these samples did not exceed GWPS for analyzed constituents with the exception of arsenic in the samples collected from the sedimentation pond (GS-GSA-SP-3 at a concentration of 0.0344 mg/L) and the clear pool (GS-GSA-SP-2 at a concentration of 0.0566 mg/L).

Results from the ASD are described in later sections and the ASD is attached as **Appendix E, Alternate Source Demonstration – Lithium**.

7.1.3 Discussion of Delineation Results

Previous Groundwater Monitoring and Corrective Action Reports for the Plant Gorgas Gypsum Pond have identified SSLs in groundwater for lithium; the most recent SSL for lithium was during the second semi-annual monitoring event of 2020 when an SSL for lithium was observed in downgradient well GS-GSA-MW-3. Lithium concentrations do appear to be increasing in downgradient monitoring well GS-GSA-MW-4, but the concentrations have not resulted in an SSL. In fact, concentrations slightly decreased from January 2022 to May 2022 from 0.647 mg/L to 0.582 mg/L. This general increase in concentration appears to have initiated with an increase in well turbidity which occurred between October 2019 and March 2021 as

described in the ASD study included as **Appendix E**. The highest turbidity value of 8.94 nephelometric turbidity units (NTUs) occurred in October 2020 which is notable due to the fact that it was the first sampling event after the February 2020 well solids and precipitate sampling event, a sampling event which retrieved and disturbed well solids and precipitates in the wells (MNA Evaluation). Minerals identified during the ASD study in GS-GSA-MW-4 were dominated by muscovite and illite (61% by weight percentage) and lesser percentages of quartz (36.8 %), zeolite (2.0%), and vermiculite (0.2%). In fine-grained sediments, lithium and boron are known to be hosted by smectite, illite, or chlorite clay minerals, and this was experimentally demonstrated showing lithium and boron are adsorbed in the interlayers of smectite and incorporated into illite during diagenetic alteration of smectite (Williams and Hervig, 2005). Other studies have shown that illitic clays and claystone/mudstones are enriched in lithium (Castor and Henry, 2020). Additionally, elevated aluminum, a common constituent associated with clay minerals and micas, was observed in groundwater samples collected from GS-GSA-MW-4 during January and May, 2022 (29.70 and 27.00 mg/L, respectively). Therefore, it is reasonable to attribute increases in lithium and boron to disruption of physical and geochemical equilibria caused by stirring and suctioning of muscovite-illite dominated well sediments. **Figure 7** depicts arsenic and lithium concentrations at the Gypsum Pond during the first semi-annual monitoring event of 2022.

The location and spacing of delineation wells are largely 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 1b**, eleven (11) delineation wells have been installed at the Site to assess potential impacts. Additionally, two (2) delineation wells were installed (GS-GSA-MW-10H and GS-GSA-MW-15H) were installed but did not produce sufficient groundwater yield to sample (**Table 1c**).

At the Site, SSLs for lithium have been historically observed at compliance well GS-GSA-MW-3, though no SSLs were noted during the first semi-annual sampling event of 2022. Lithium exceeded the GWPS at downgradient well GS-GSA-MW-4 at a concentration of 0.671 mg/L, but the concentration did not result in an SSL. Additionally, an exceedance for lithium was noted at horizontal delineation well GS-GSA-MW-14H at a concentration of 0.43 mg/L during the first semi-annual sampling event of 2022.

Lithium exceedances are common at the site and have been suspected to be related to natural sources of lithium in mine spoils and native geologic material rather than a release from the CCR unit. To address these lithium exceedances, a year-long study was conducted at the site to characterize geochemical signatures in groundwater and to assess the occurrence and nature of lithium in site materials. This study included boron isotopic analysis of groundwater, source characterization as described in **Section 6.1.2**, and rock core sampling and analysis. As part of this analysis, an ASD was performed that concluded lithium concentrations observed at the following monitoring wells are not the result of a release from the Gypsum Pond but rather natural variation in site groundwater due to naturally occurring lithium:

- GS-GSA-MW-3
- GS-GSA-MW-4
- GS-GSA-MW-3V
- GS-GSA-MW-9V
- GS-GSA-MW-12H
- GS-GSA-MW-14H

The ASD concluded that lithium in groundwater is associated with the mobilization of lithium from mine spoils, clay minerals commonly found in shales and mudstones, and mineralized fractures and is not the result of a release from the CCR unit. The ASD is included as **Appendix E** to this report.

7.2 STATUS OF DELINEATION

Potential lithium impacts to groundwater that have previously been attributed to the CCR unit have been horizontally delineated in the direction of groundwater flow away from the facility in multiple flow systems. These potential impacts do not extend off-Site as shown on **Figure 7.** As shown on **Figure 8, Lithium Concentrations Along Geologic Cross Section D-D', January 2022** elevated lithium primarily occur in discrete zones that correspond to shale and mudstone or mine spoil lithologies.

As discussed in **Section 6.1.3** and in the attached ASD in **Appendix E**, lithium occurs in these discrete zones due to the infiltration of meteoric water and the weathering of shale, mudstone, and mine spoils which mobilizes abundant lithium associated with clay minerals and native coal seams. Because lithium has been attributed to natural sources and not a release from the CCR unit, delineation of lithium in groundwater is considered complete at the site.

7.3 GROUNDWATER REMEDY AND CORRECTIVE ACTION

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

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

7.3.1 Groundwater Remedy Selection

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

- Source control which includes the clean closure and removal of the Gypsum Pond (likely complete Fall 2022),
- Monitored natural attenuation (MNA) over the entire Site.

Source control at the Gypsum Pond will be accomplished by complete removal of the CCR material from the unit and regrading of the area as needed to facilitate stormwater management. The Gypsum Pond is lined with a 60-mil high-density polyethylene (HDPE) geomembrane liner, which was installed after existing soils/mine spoils were graded, the subgrade proof rolled, and a granular fill placed beneath the liner. The liner is expected to continue reducing the potential for source contributions to groundwater during closure activities. MNA was selected based upon the evidence gathered during initial investigations - which highlighted that these processes are already occurring.

7.3.2 Corrective Action – Groundwater Monitoring Program

The Corrective Action Groundwater Monitoring Program describes early plans for implementation and monitoring of groundwater remedies described above. The Corrective Action Groundwater Monitoring Program describes early plans for implementation and monitoring of groundwater remedies described above. Construction activities associated with closure reached substantial completion in November 2020. Site closure included removal of free water, dewatering the CCR material, grading the Site to promote drainage, and installing a final cover consisting of a low-permeability cover system consisting of geomembrane and a vegetative cover.

In addition to continued rule-required assessment monitoring, the objectives of this Monitoring Program are to demonstrate that horizontal and vertical delineation remain complete, demonstrate that natural attenuation is occurring, evaluate groundwater remedy performance against groundwater protection standards, evaluate groundwater constituent of interest concentrations with respect to standards protective of potential human and ecological receptors, and evaluate system performance against adaptive triggers to determine if adaptation or change to the remedy system is necessary.

Selected Remedy	Implementation Task(s)
Monitored Natural Attenuation	1. Implementation of expanded MNA sampling parameters. 2. Further assessment of MNA monitoring network.

Implementation of Monitored Natural Attenuation

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

Wells are sampled for the following additional parameters:

1) Alkalinity (total as $CaCO_3$)
2) Aluminum (total and dissolved)
3) Bicarbonate alkalinity (calculated)
4) Carbonate alkalinity (calculated)
5) Iron (total and dissolved)
6) Magnesium (dissolved)
7) Manganese (total and dissolved)
8) Nitrogen as nitrate/nitrite
9) Potassium (dissolved)
10) Silica (dissolved)
11) Sodium (dissolved)
12) Sulfide
13) Total organic carbon

8.0 SUMMARY AND CONCLUSIONS

Based on the results of statistical analysis presented in this report, the Gypsum Pond remains in assessment monitoring and is currently in corrective action. The selected remedy at the site is MNA.

The certified compliance monitoring well network is sampled on a semi-annual basis. The groundwater samples were analyzed for all Appendix III and IV parameters in addition to other parameters selected to evaluate remedy performance. Statistical evaluations of the January 2022 assessment monitoring event did not identify SSLs of Appendix IV constituents in any of the Site monitoring wells. GWPS exceedances were noted in two of the Site delineation wells: GS-GSA-MW-13H (arsenic) and GS-GSA-MW-14H (lithium).

An ASD was performed to address the occurrence of lithium at the site and is attached to this report as **Appendix E**. The ASD concluded that lithium concentrations exceeding the GWPS in site monitoring wells are likely associated with mobilization of lithium from mine spoils, clay minerals commonly found in shales and mudstones, and mineralized fractures and is not the result of a release from the CCR unit. Therefore, delineation is considered complete at the site.

In accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), APC will continue semi-annual assessment and corrective action monitoring. The following future actions will be taken or are recommended for the Site:

- Conduct the second semi-annual assessment monitoring event in 2022 and submit the annual groundwater monitoring and corrective action report summarizing the findings to ADEM by January 31, 2023.

9.0 REFERENCES

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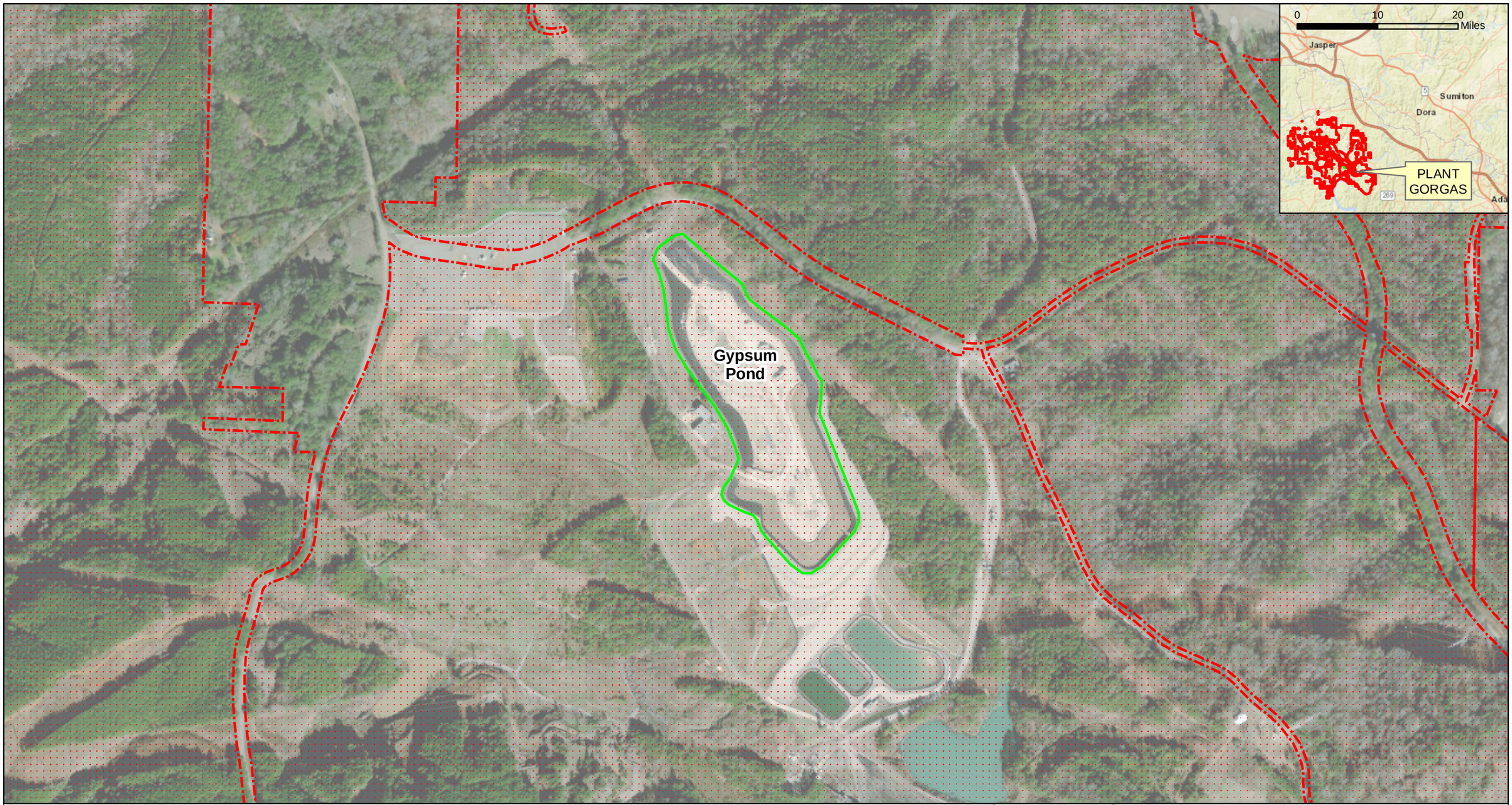
Figures



Legend

- Gypsum Pond Boundary
- Property Boundary (Approximate)

N

0 500 1,000 2,000 Feet

SCALE	1:6,000
DATE	11/10/2020
DRAWN BY	KWR
CHECKED BY	GBD

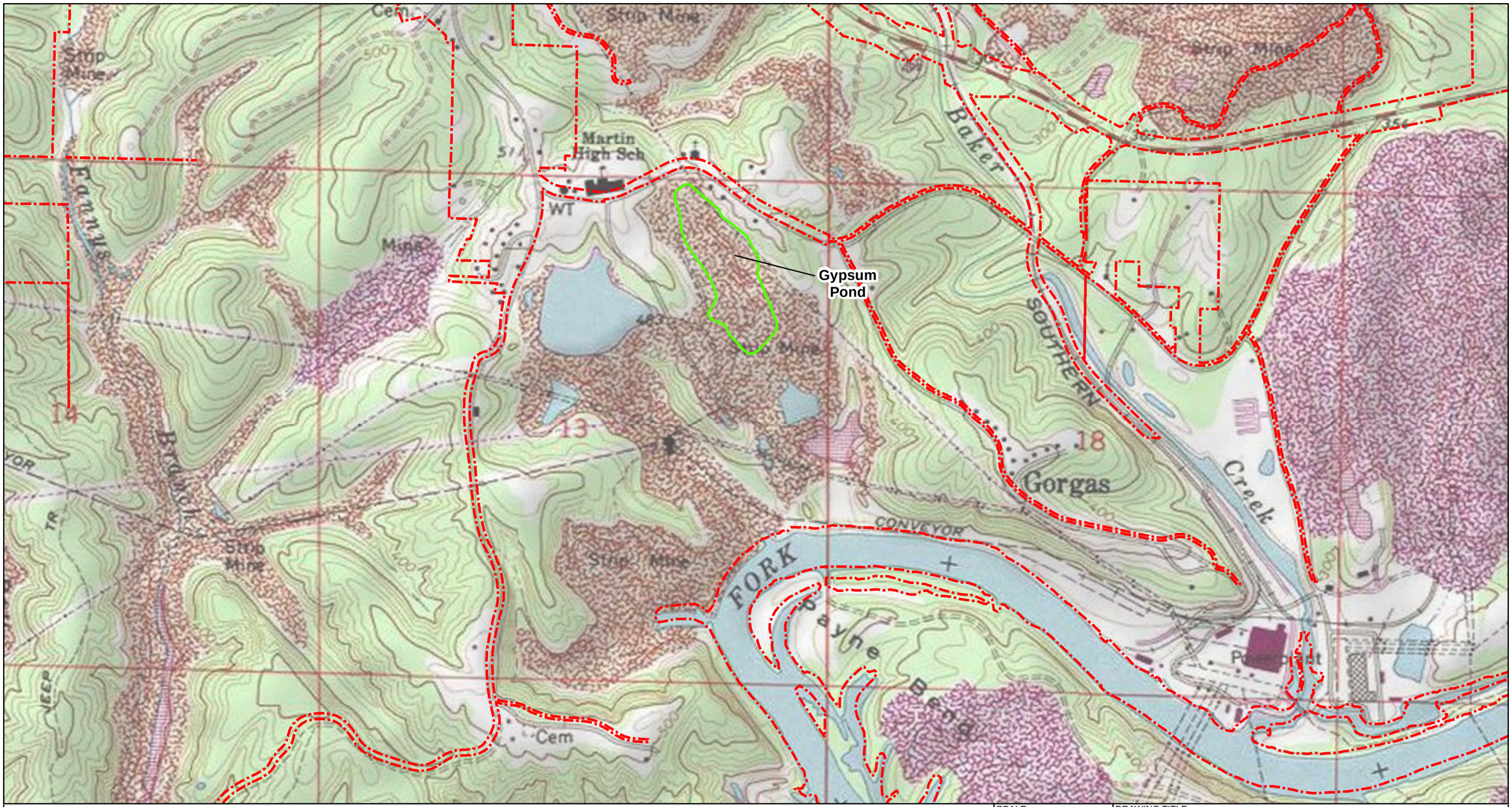
DRAWING TITLE

SITE LOCATION MAP
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 1

Southern Company



Legend

- Gypsum Pond Boundary
- Property Boundary (Approximate)

N

0 1,000 2,000 4,000 Feet

SCALE	1:12,000
DATE	11/10/2020
DRAWN BY	KWR
CHECKED BY	GBD

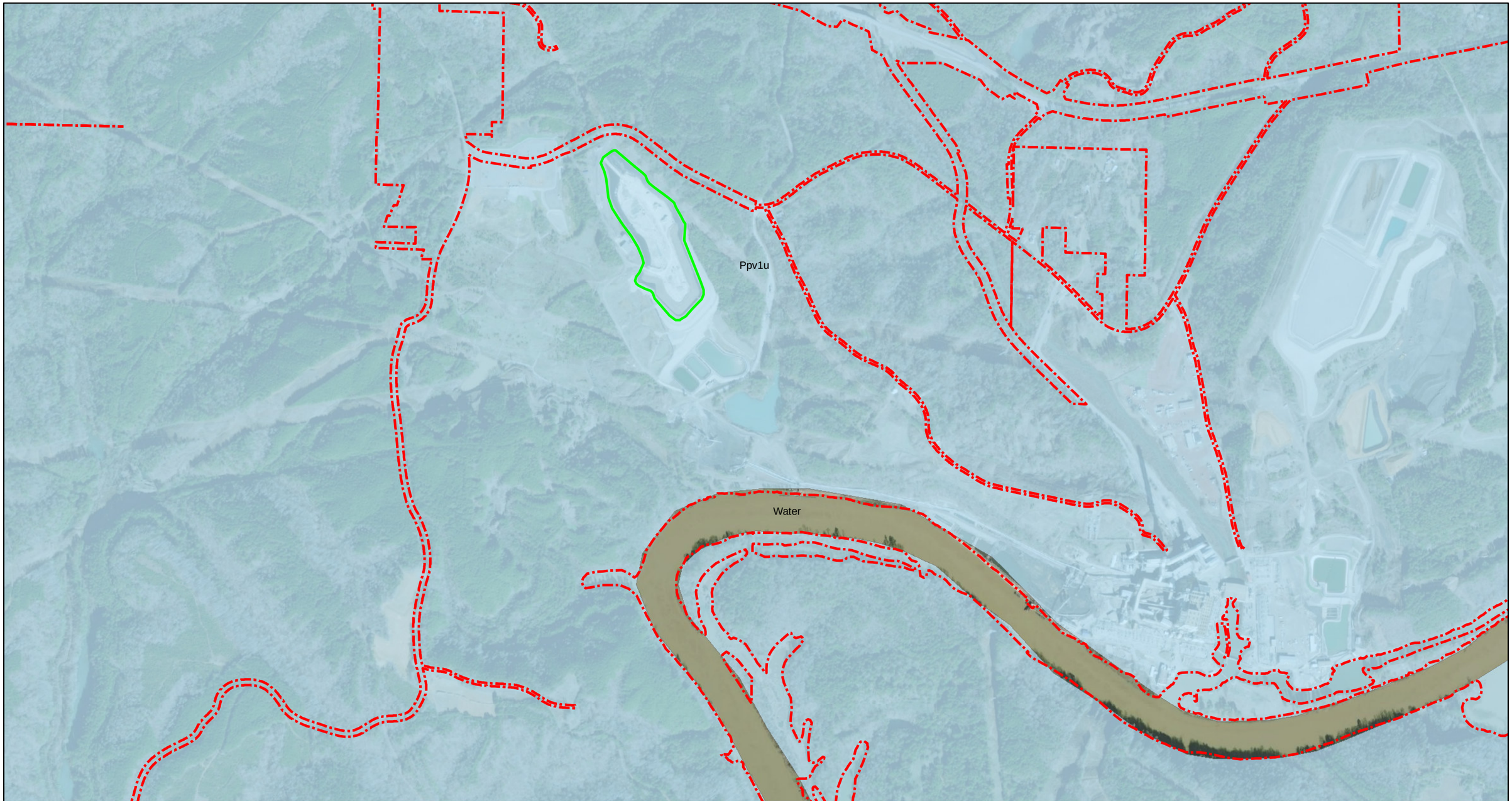
DRAWING TITLE

SITE TOPOGRAPHIC MAP
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 2

Southern Company



Legend

Gypsum Pond Boundary

Property Boundary (Approximate)

Geologic Units

Pottsville Formation (upper part), Appalachian Plateaus (Ppv1u)

N

0 500 1,000 2,000 3,000 4,000 Feet

SCALE	1:12,000
DATE	11/10/2020
DRAWN BY	KWR
CHECKED BY	GBD

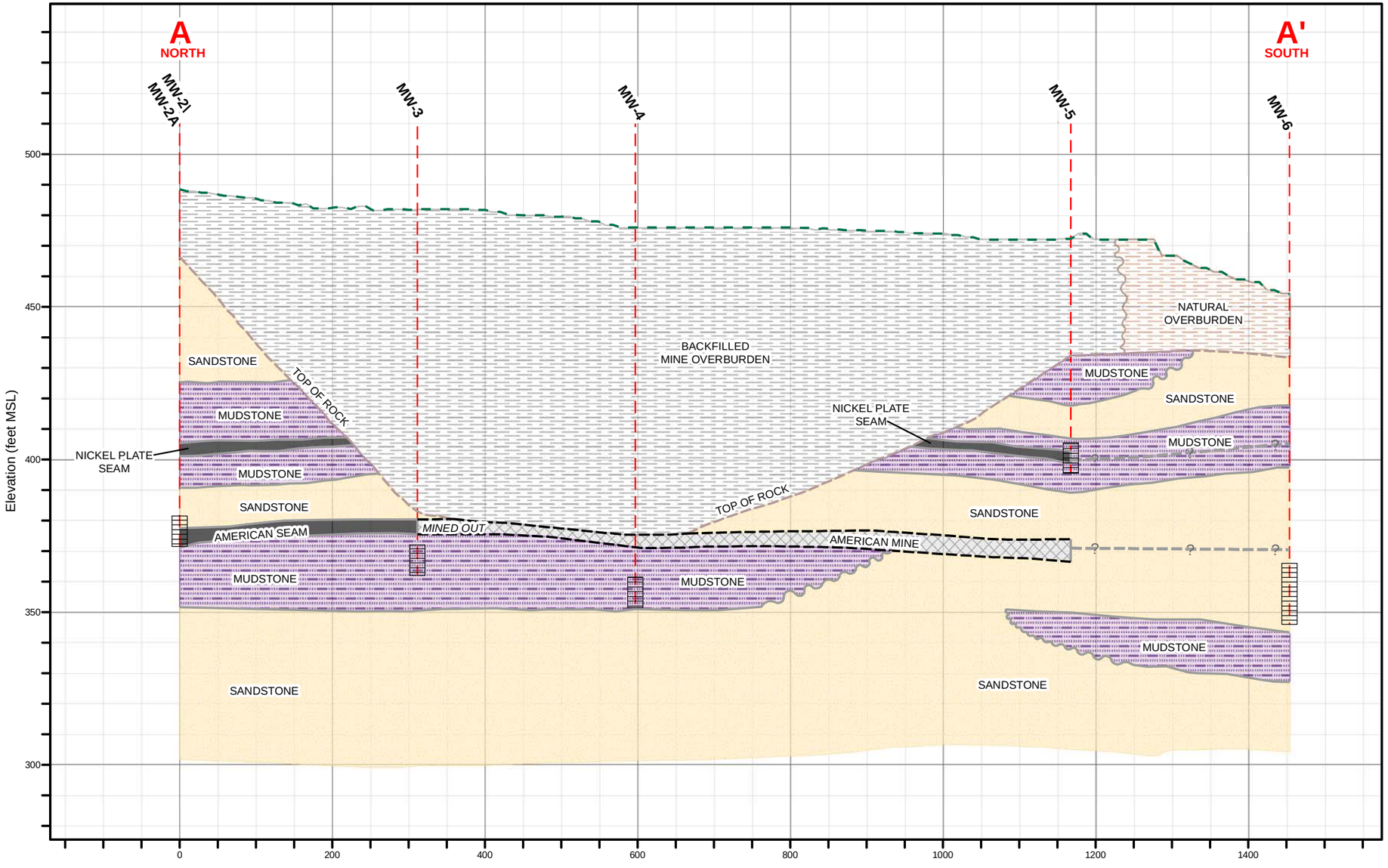
DRAWING TITLE

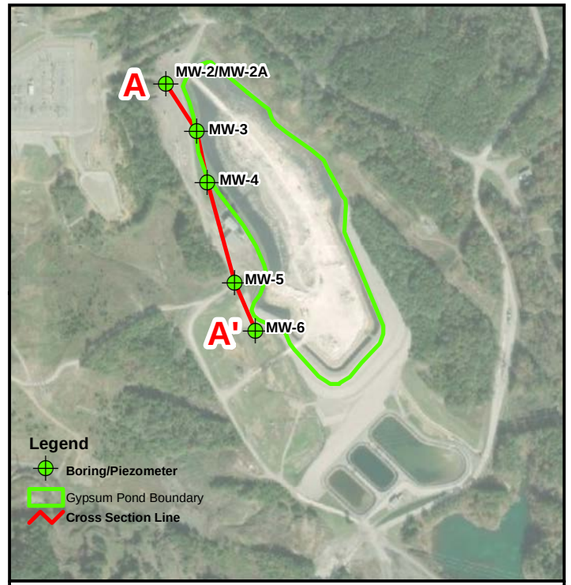
SITE GEOLOGIC MAP
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 3

Southern Company





NOTES:
1. Stratagraphic layers were correlated using a combination of boring data and gamma logs.
2. Vertical exaggeration = 4.
3. Wells included in this cross section were installed in 2015 and did not produce enough groundwater to develop and sample.

Legend

- Screen Interval
- Ground Surface Elevation
- Borehole Location
- Top of Rock
- Strata Boundary
- Inferred Strata
- Mine

Geologic Units

- Backfilled Mine Overburden
- Natural Overburden
- Mudstone
- Sandstone
- Mine
- Coal

SCALE	AS SHOWN
DATE	7/22/2022
DRAWN BY	KAR
CHECKED BY	GBD

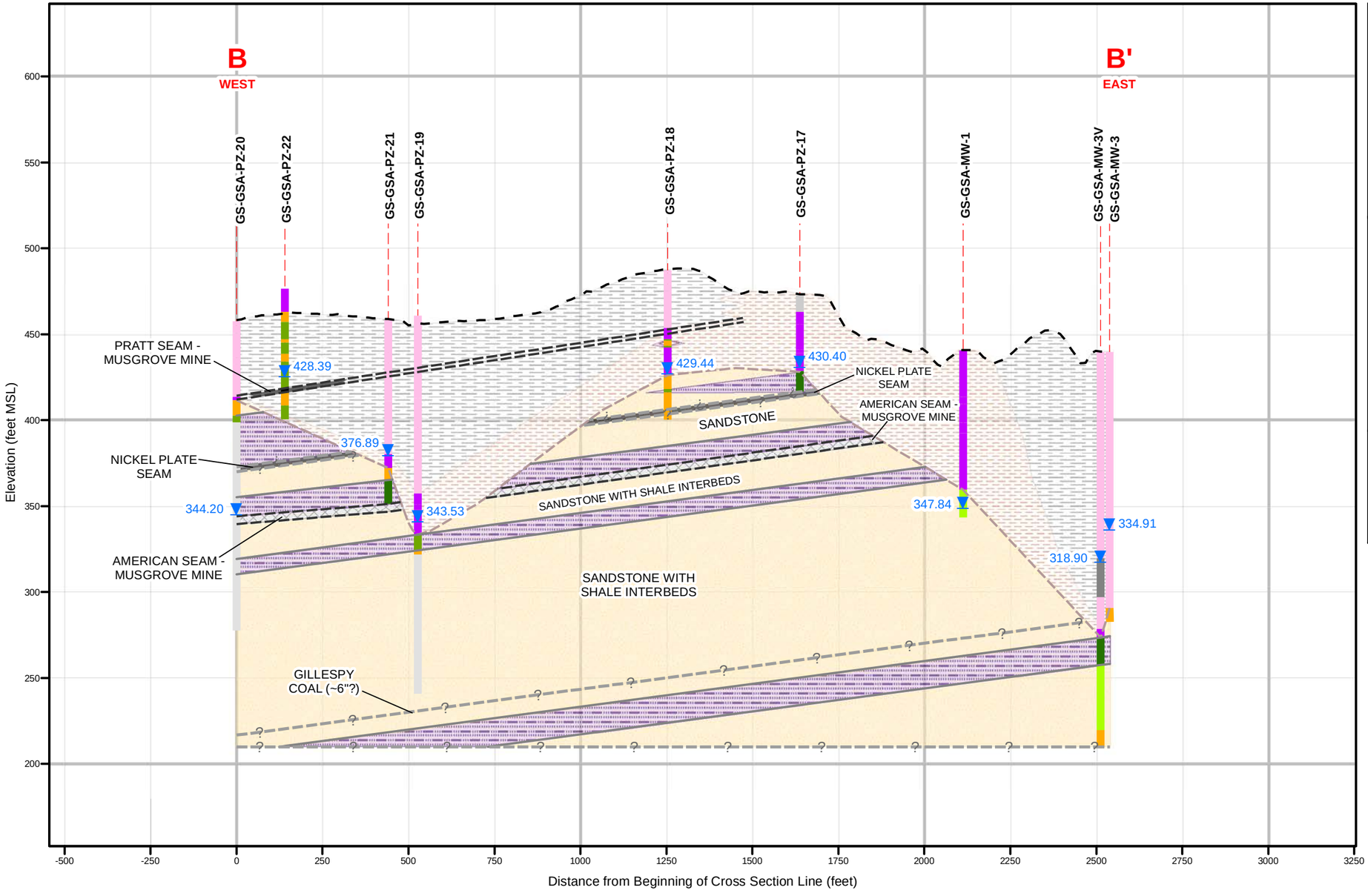
DRAWING TITLE

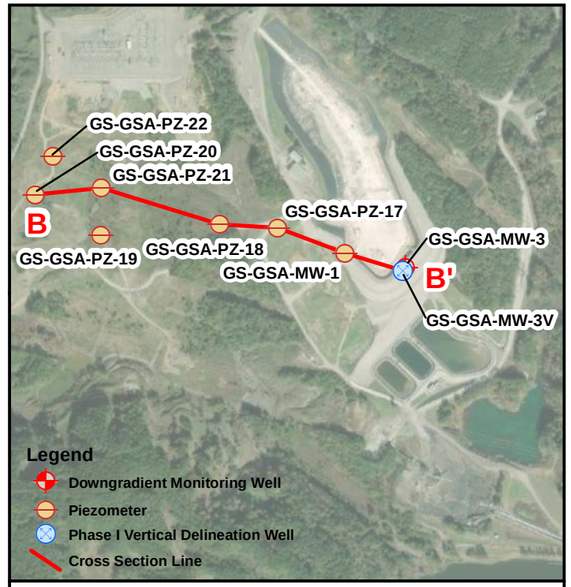
GEOLOGIC CROSS SECTION A - A'
PLANT GORGAS GYPSUM POND

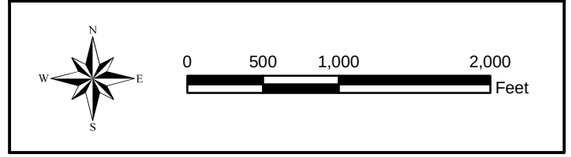
FIGURE NO

FIGURE 4A

Southern Company







NOTES:

1. GS-GSA-PZ-22 and PZ-19 are projected onto the cross section line, so the ground surface deviates from the well surface elevation at these locations.
2. NM indicates water level not measured.
3. Water levels measured on January 24, 2022.
4. Water levels exist from three separate flow systems, so correlations of potentiometric surfaces are not presented on this figure.
5. Vertical exaggeration = 5.

Legend

- Ground Surface Elevation
- Water Level Elevation
- Screened Interval
- Borehole Location
- Top of Rock
- Strata Boundary
- Inferred Strata
- Mine

Borehole Description

- CCR Fill
- Fill Materials
- Overburden
- COAL
- Hydroexcavated
- No Recovery
- Sandstone
- Sandstone and Siltstone
- Siltstone
- Shale

Geologic Units

- Backfilled Mine Overburden
- Natural Overburden
- Mudstone/Shale
- Sandstone
- Mine
- Coal

SCALE	AS SHOWN
DATE	7/25/2022
DRAWN BY	KAR
CHECKED BY	GBD

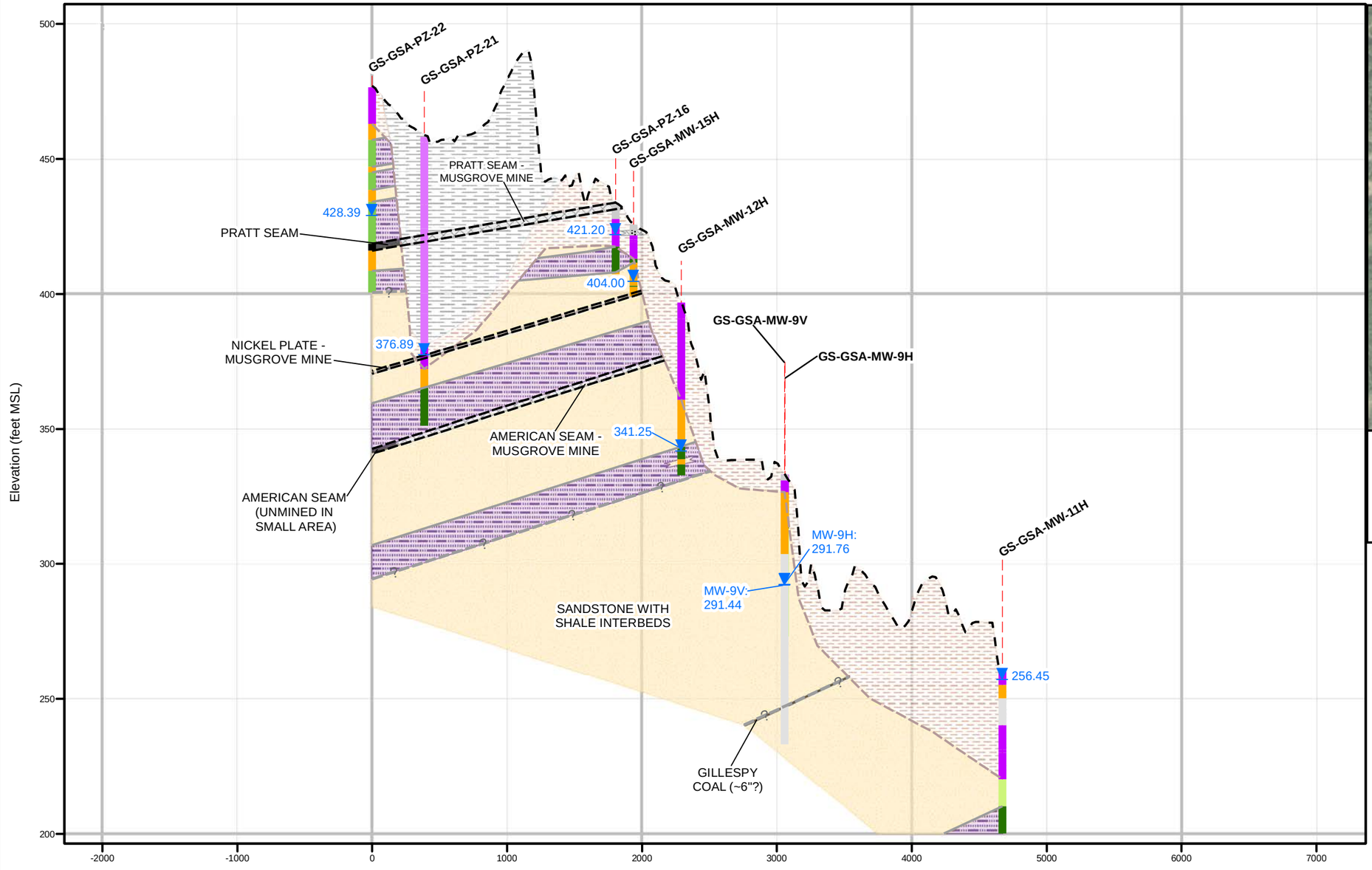
DRAWING TITLE

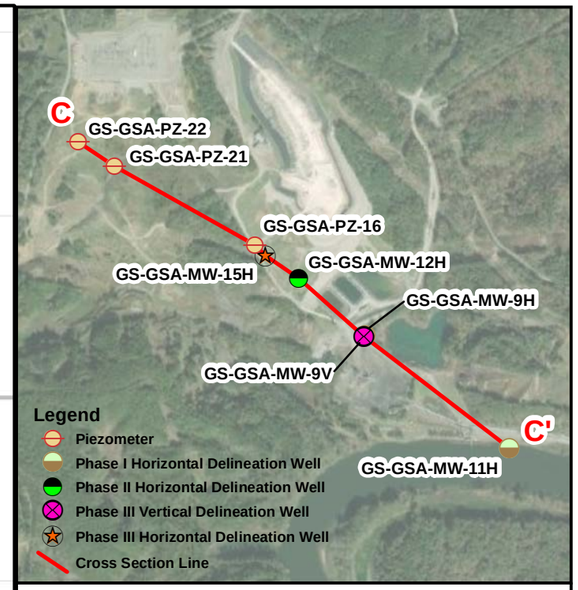
GEOLOGIC CROSS SECTION B - B'
PLANT GORGAS GYPSUM POND

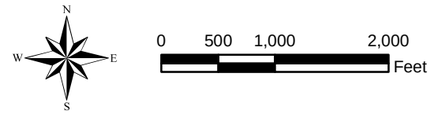
FIGURE NO

FIGURE 4B

Southern Company







NOTES:
1. GS-GSA-MW-9H is projected onto the cross section line, so the ground surface deviates from the well surface elevation at this location.
2. Groundwater levels measured on August 3, 2020.
3. Water levels exist from three separate flow systems, so correlations of potentiometric surfaces are not presented on this figure.
4. Water levels were measured on January 24, 2022.

Deeper strata projected from structural elevations of coal seams from
5. Musgrove Mine records or from neighboring borings that extend deeper.
6. Vertical exaggeration = 5.

Legend

- Ground Surface Elevation
- Water Level Elevation
- Borehole Location
- Screened Interval
- Top of Rock
- Strata Boundary
- Inferred Strata
- Mine

Borehole Description

- CCR Fill
- Fill Materials
- Overburden
- MINESPOILS
- COAL
- Hydroexcavated
- No Recovery
- Sandstone
- Sandstone and Siltstone
- Siltstone
- Shale

Geologic Units

- Backfilled Mine Overburden
- Natural Overburden
- Mudstone/Shale
- Sandstone with Shale Interbeds
- Mine
- Coal

SCALE	AS SHOWN
DATE	7/25/2022
DRAWN BY	KAR
CHECKED BY	GBD

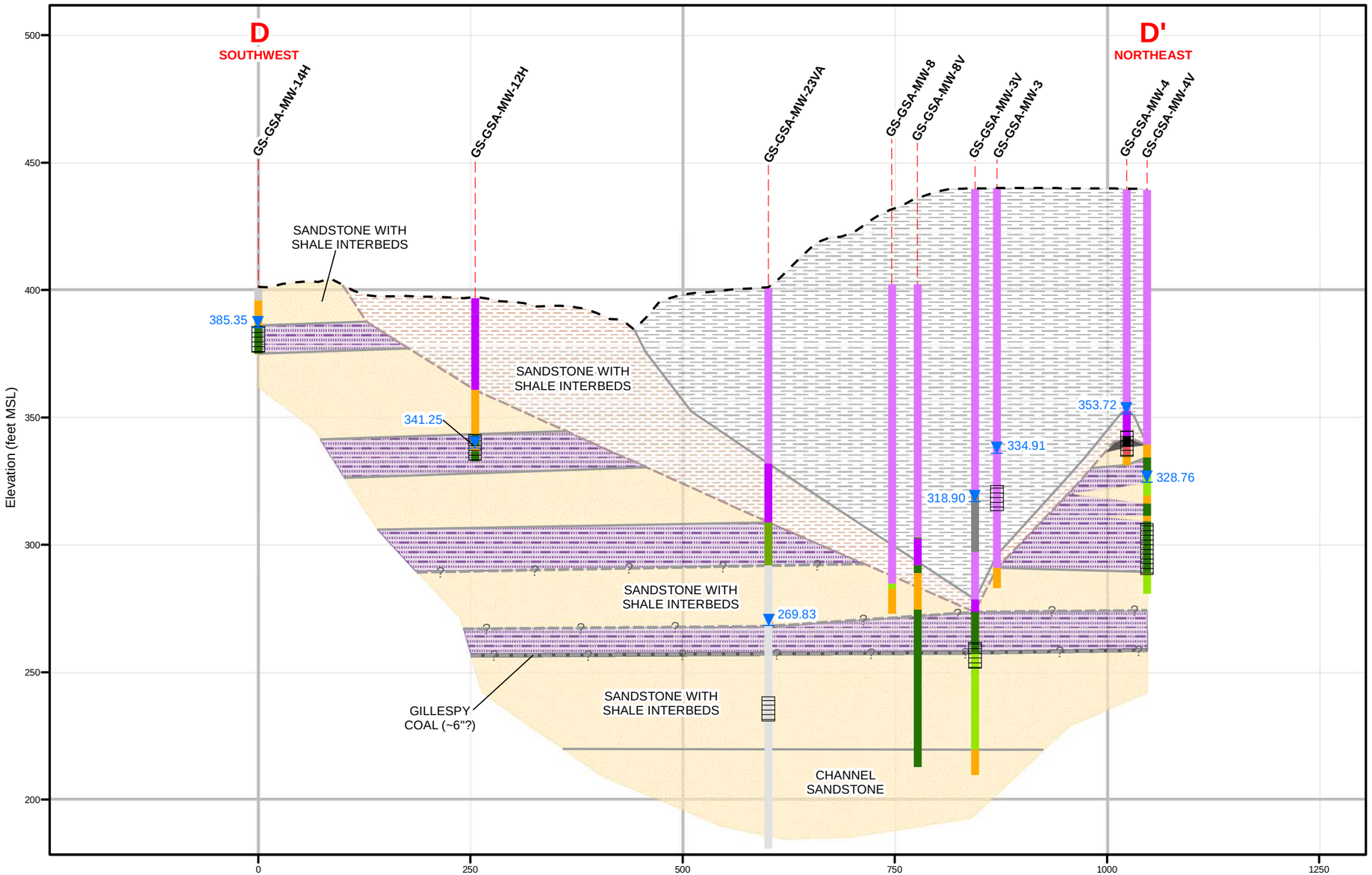
DRAWING TITLE

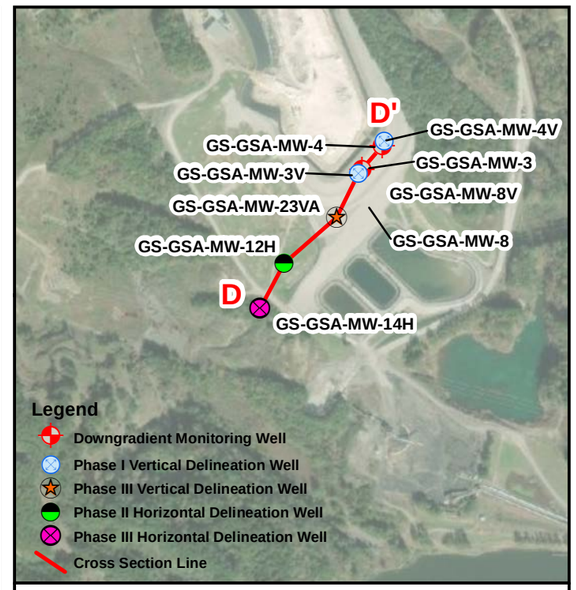
GEOLOGIC CROSS SECTION C - C'
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 4C

Southern Company





NOTES:
1. Groundwater levels measured on January 24, 2022.
2. NM indicates water level not measured.
3. Water levels exist from three separate flow systems, so correlations of potentiometric surfaces are not presented on this figure.
4. Deeper strata projected from structural elevations of coal seams from Musgrove Mine records or from neighboring borings that extend deeper.
5. Vertical exaggeration = 5.

Legend

- Ground Surface Elevation
- Water Level Elevation
- Borehole Location
- Screened Interval
- Top of Rock
- Strata Boundary
- Inferred Strata
- Mine
- CCR Fill
- Fill Materials
- Overburden
- MINESPOILS

Borehole Description

- COAL
- Hydroexcavated
- No Recovery
- Partially Weathered Rock
- Sandstone
- Sandstone and Siltstone
- Siltstone
- Shale

Geologic Units

- Backfilled Mine Overburden
- Natural Overburden
- Mudstone/Shale
- Sandstone
- Mine
- Coal

SCALE	AS SHOWN
DATE	7/25/2022
DRAWN BY	KAR
CHECKED BY	RFS

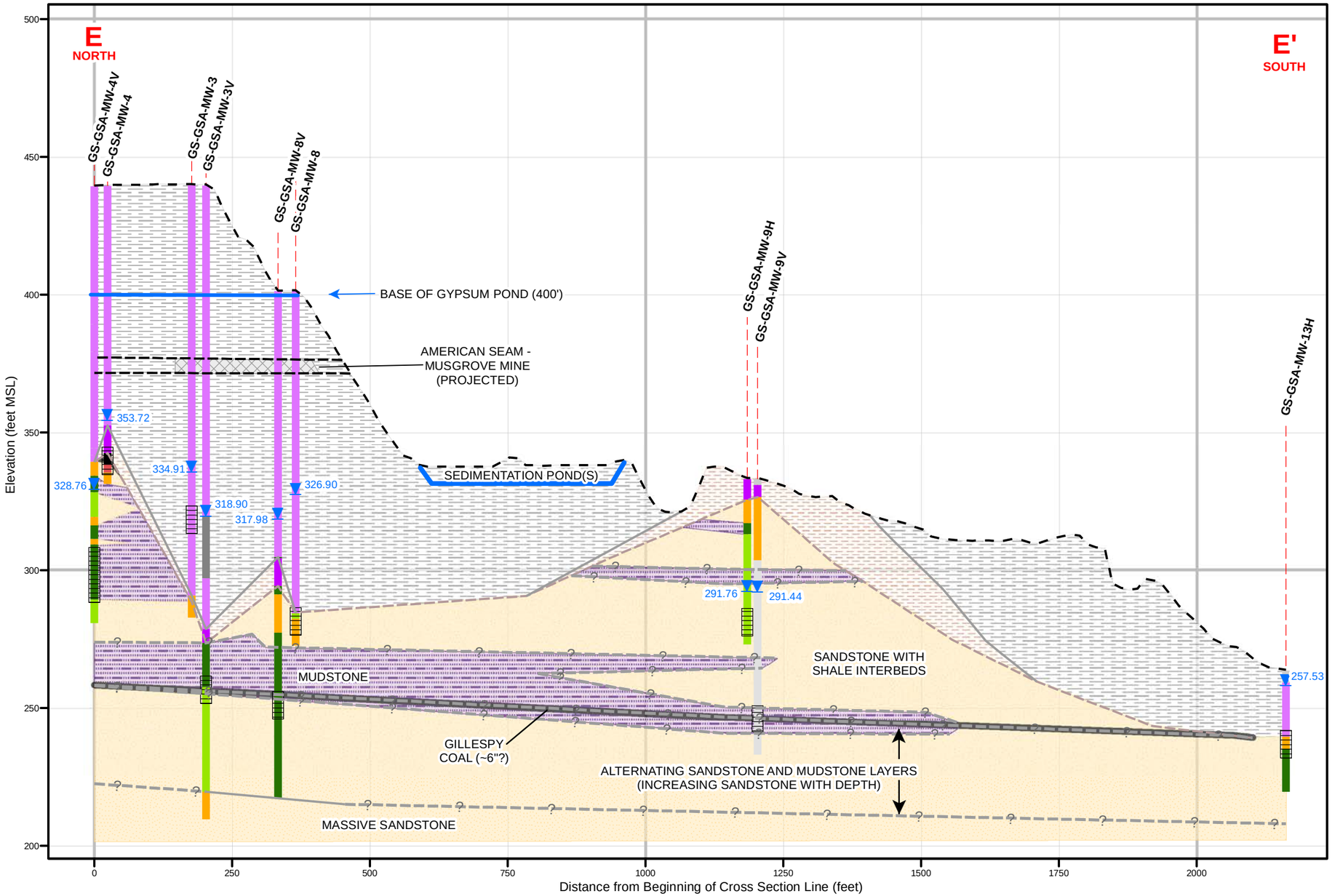
DRAWING TITLE

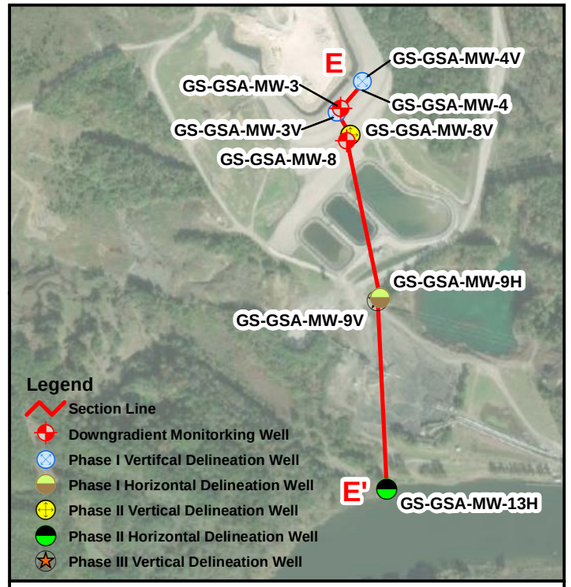
GEOLOGIC CROSS SECTION D - D'
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 4D

Southern Company





NOTES:
1. Groundwater levels measured on January 24, 2022.
3. Water levels exist from three separate flow systems, so correlations of potentiometric surfaces are not presented on this figure.
4. Vertical exaggeration = 5.

Legend

- Ground Surface Elevation
- Groundwater Elevation
- Borehole Location
- SCREEN_63
- Top of Rock
- Strata Boundary
- Inferred Strata
- Mine

Borehole Description

- CCR Fill
- Fill Materials
- Overburden
- COAL
- Hydroexcavated
- No Recovery
- Partially Weathered Rock
- Sandstone
- Sandstone and Siltstone
- Shale

Geologic Units

- Backfilled Mine Overburden
- Natural Overburden
- Mudstone/Shale
- Sandstone
- Mine
- Coal

SCALE	AS SHOWN
DATE	7/26/2022
DRAWN BY	KAR
CHECKED BY	RFS

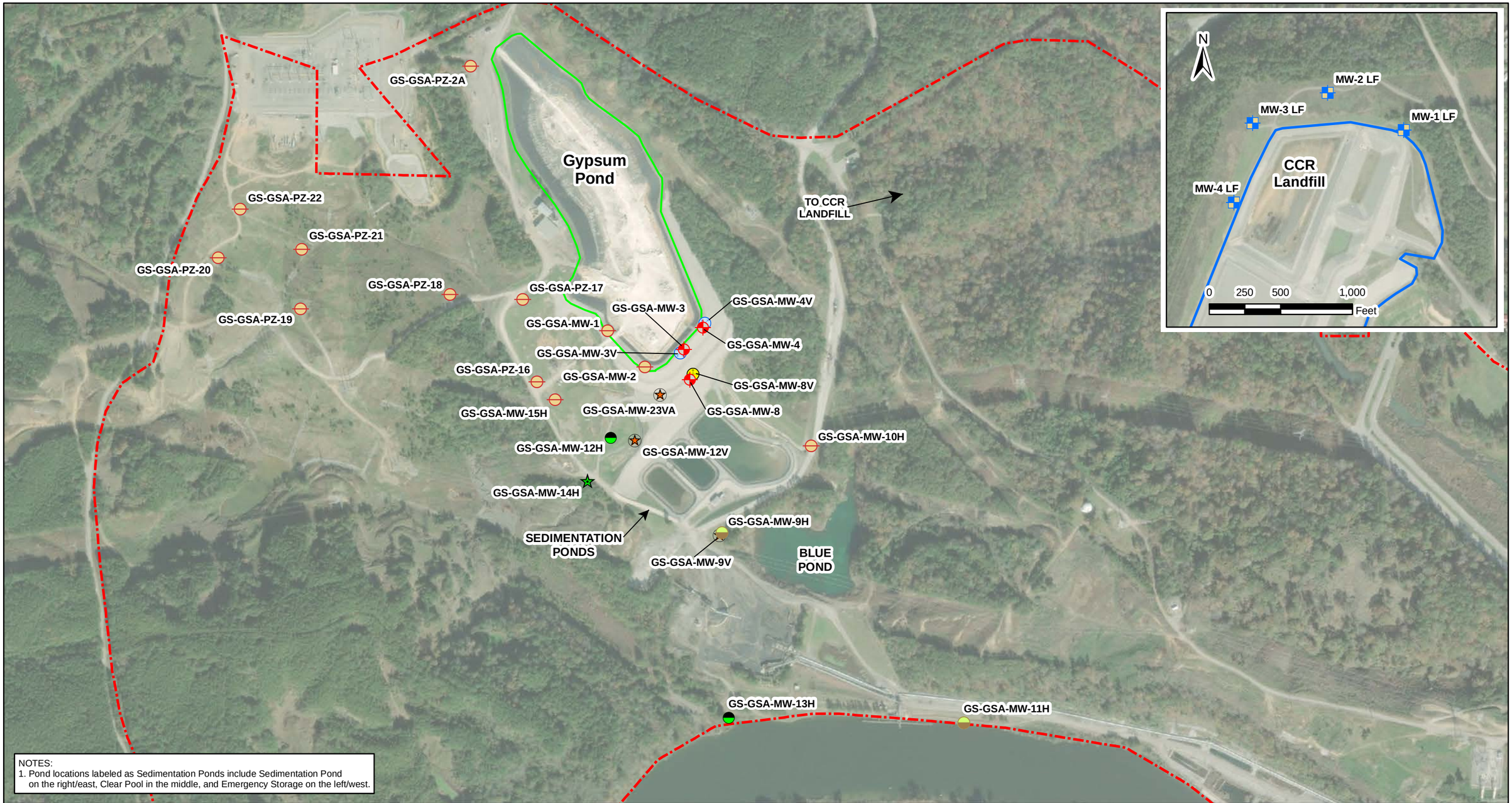
DRAWING TITLE

GEOLOGIC CROSS SECTION E - E'
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 4E

Southern Company



NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Piezometer; Piezometer
- Phase I Horizontal Delineation Well
- Phase II Horizontal Delineation Well
- Phase III Horizontal Delineation Well
- Phase I Vertical Delineation Well
- Phase II Vertical Delineation Well
- Phase III Vertical Delineation Well
- Upgradient Monitoring Well
- Property Boundary (Approximiate)
- Gypsum Pond Boundary
- Gypsum CCR Landfill Boundary

N

0 250 500 1,000 1,500 Feet

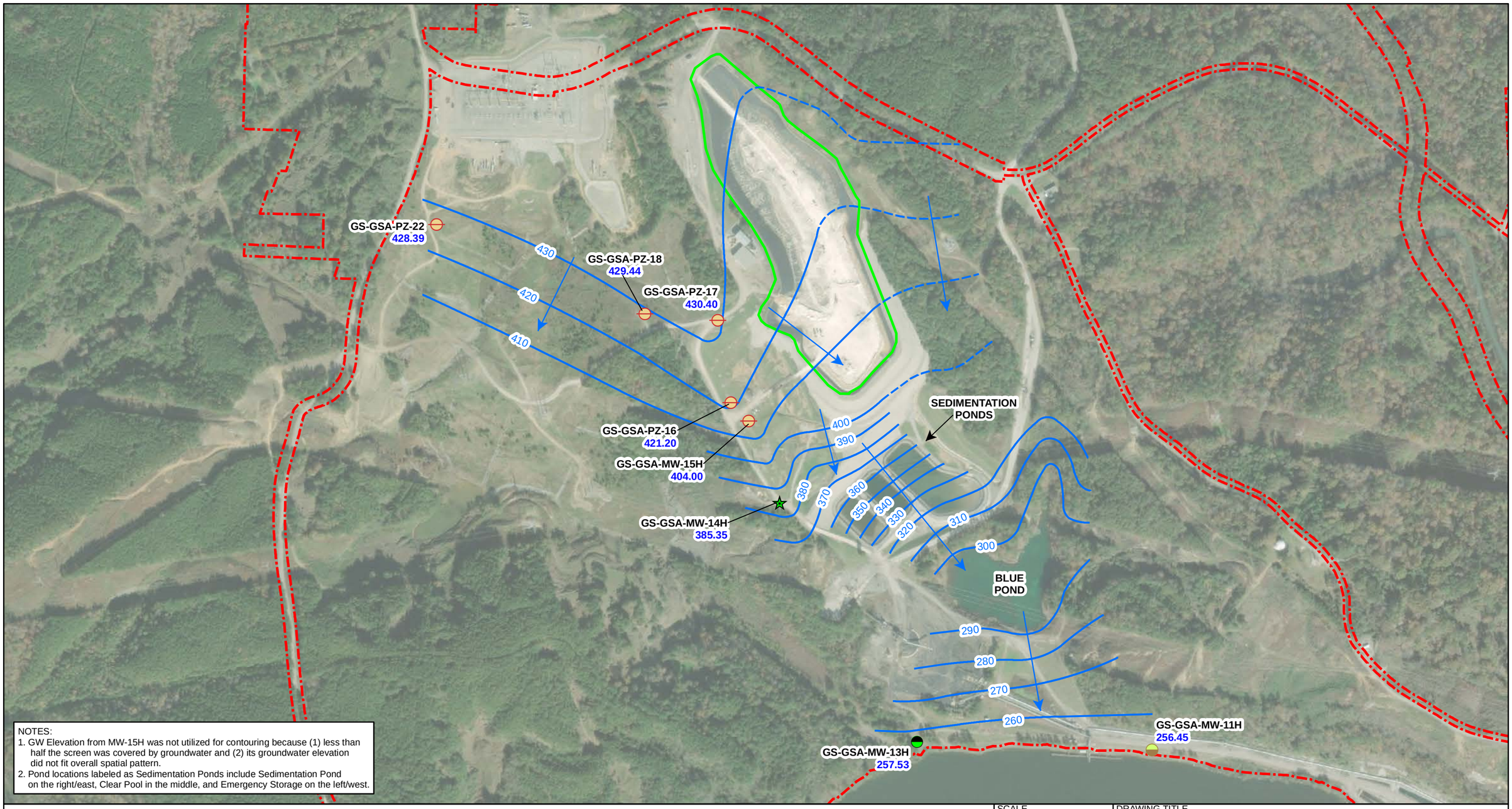
SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE

MONITORING WELL LOCATION MAP PLANT GORGAS GYPSUM POND

FIGURE NO **FIGURE 5**

Southern Company



NOTES:
1. GW Elevation from MW-15H was not utilized for contouring because (1) less than half the screen was covered by groundwater and (2) its groundwater elevation did not fit overall spatial pattern.
2. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Phase I Horizontal Delineation Well
- Phase II Horizontal Delineation Well
- Phase III Horizontal Delineation Well
- Piezometer

GS-GSA-PZ-17 Well ID
430.40 Groundwater Elevation

- Potentiometric Surface Contour (ft NAVD88)
- Inferred Potentiometric Surface Contour (ft NAVD 88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximate)
- Gypsum Pond Boundary

N

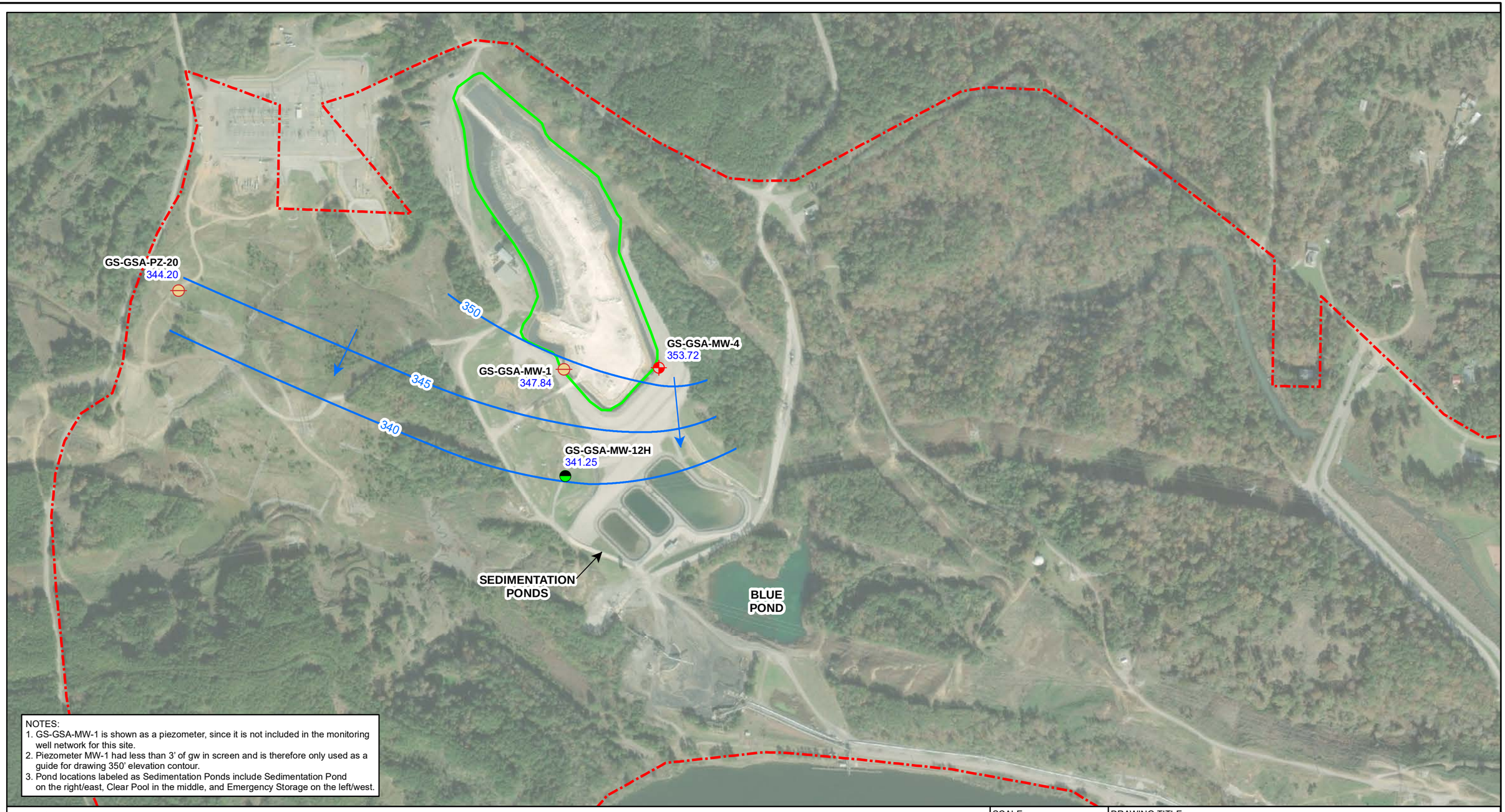
0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
WATER TABLE
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 6A

Southern Company



NOTES:
1. GS-GSA-MW-1 is shown as a piezometer, since it is not included in the monitoring well network for this site.
2. Piezometer MW-1 had less than 3' of gw in screen and is therefore only used as a guide for drawing 350' elevation contour.
3. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Piezometer
- Phase II Horizontal Delineation Well

GS-GSA-MW-4 Well ID
353.72 Groundwater Elevation

- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

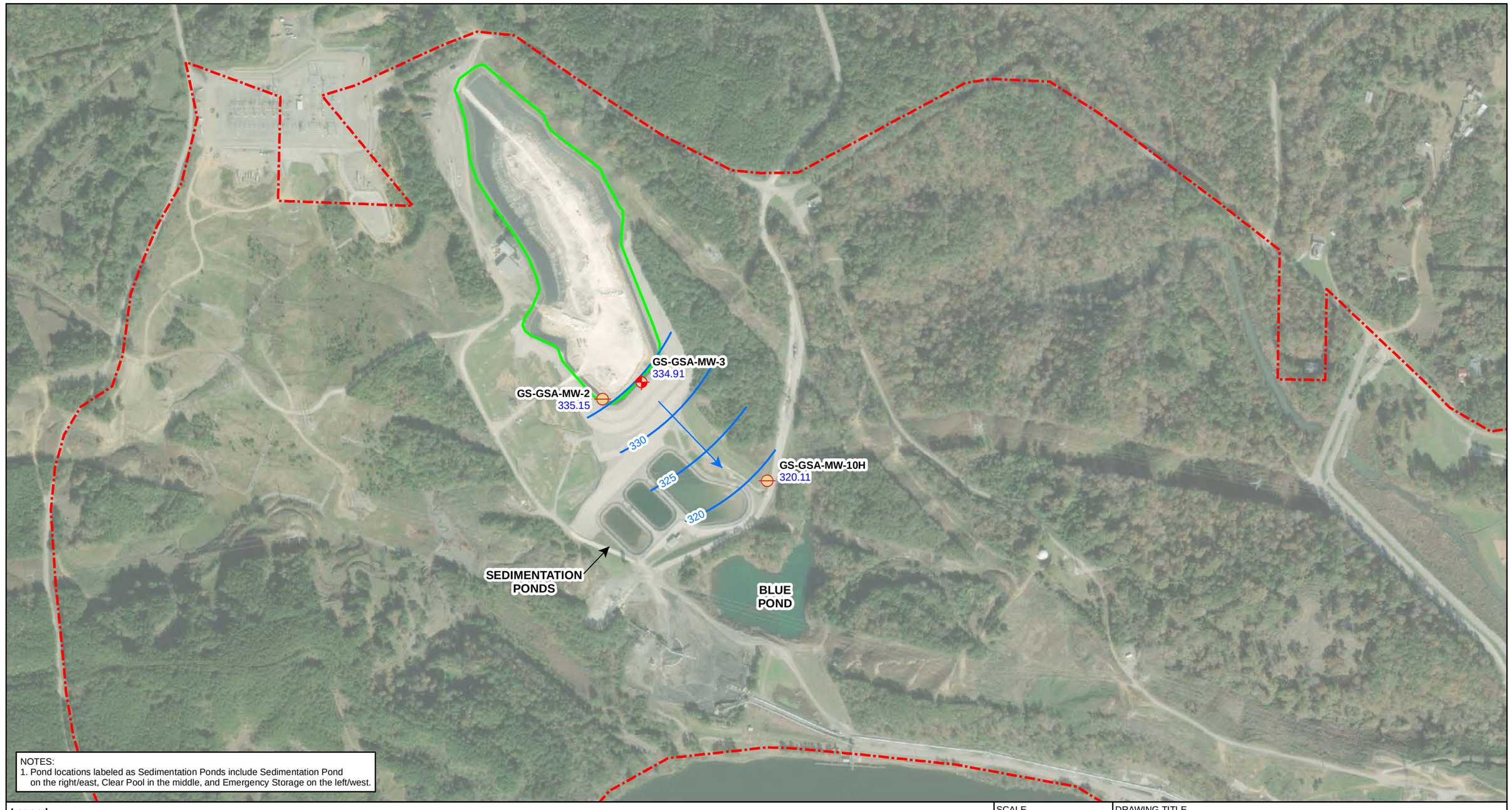
0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
INTERMEDIATE FLOW SYSTEM 1
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 6B

Southern Company



NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Piezometer
- **GS-GSA-MW-2** Well ID
  334.91 Groundwater Elevation
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

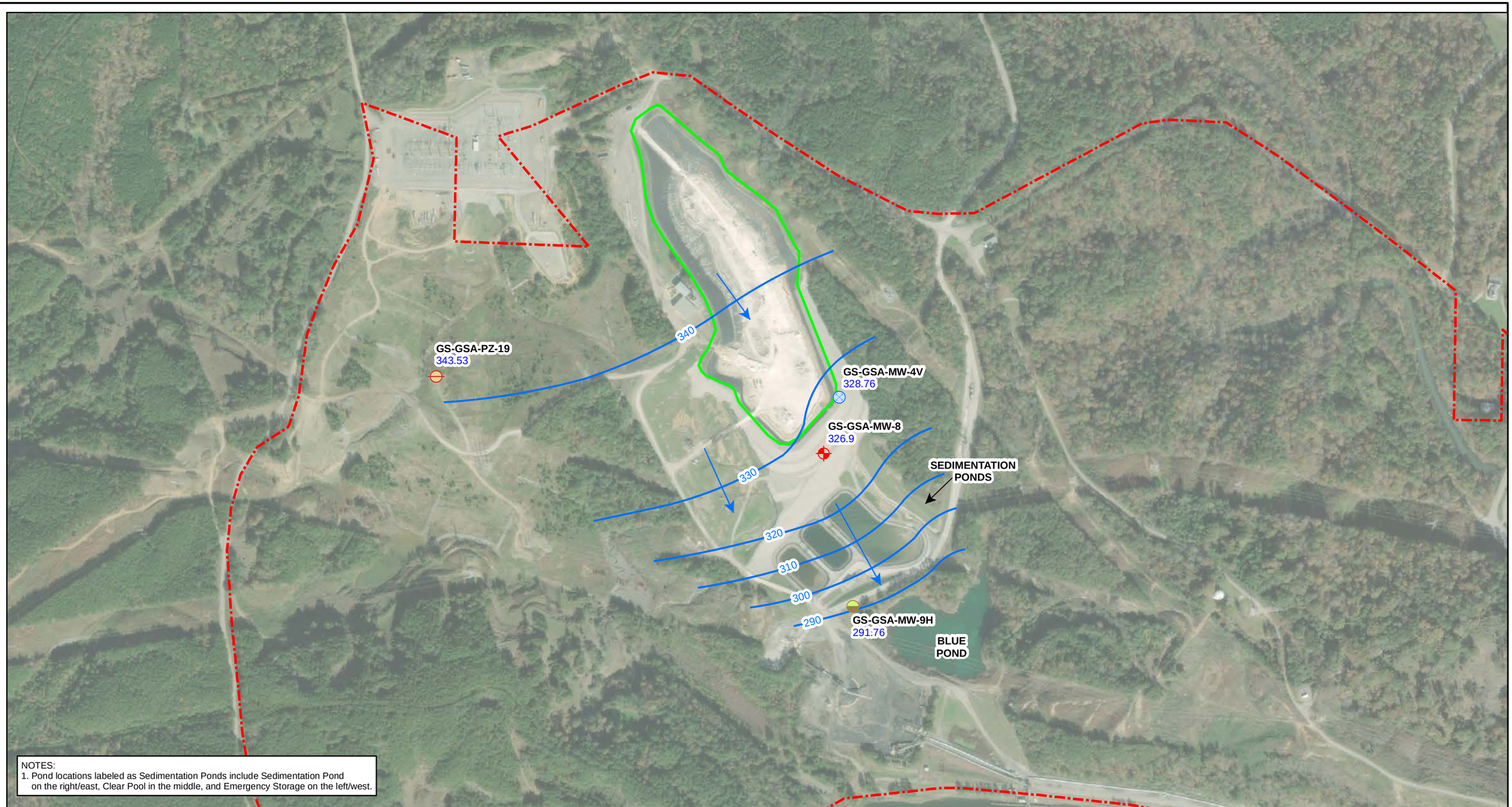
0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
INTERMEDIATE FLOW SYSTEM 2
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 6C

Southern Company



NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Piezometer
- Phase I Horizontal Delineation Well
- Phase I Vertical Delineation Well
- **GS-GSA-MW-9H** Well ID
- 291.76 Groundwater Elevation
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
INTERMEDIATE FLOW SYSTEM 3
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 6D

Southern Company

NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Phase I Vertical Delineation Well
- Phase II Vertical Delineation Well
- Phase III Vertical Delineation Well

GS-GSA-MW-3V Well ID
318.90 Groundwater Elevation

- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

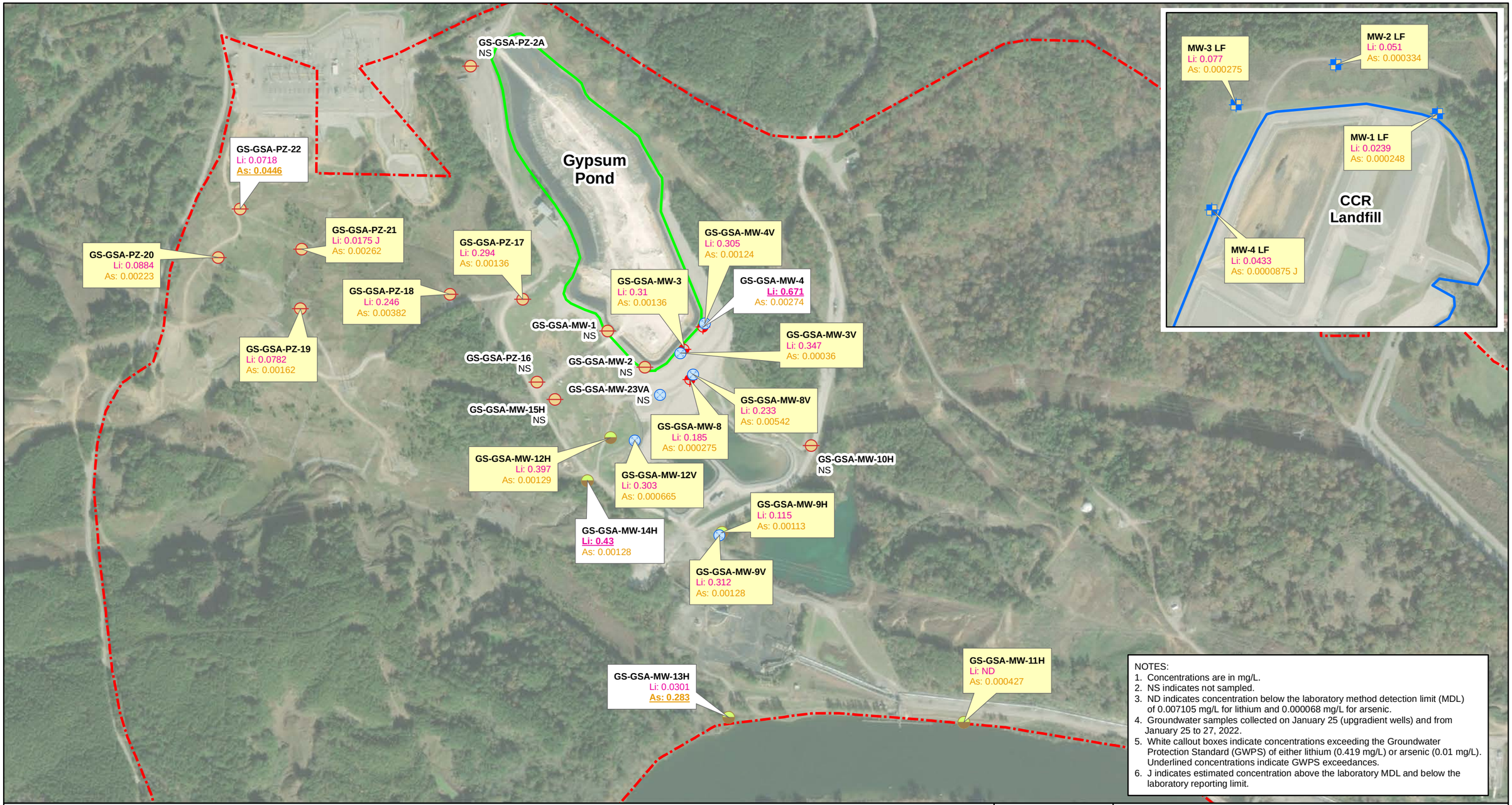
0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
DEEP INTERVAL
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 6E

Southern Company



NOTES:
1. Concentrations are in mg/L.
2. NS indicates not sampled.
3. ND indicates concentration below the laboratory method detection limit (MDL) of 0.007105 mg/L for lithium and 0.000068 mg/L for arsenic.
4. Groundwater samples collected on January 25 (upgradient wells) and from January 25 to 27, 2022.
5. White callout boxes indicate concentrations exceeding the Groundwater Protection Standard (GWPS) of either lithium (0.419 mg/L) or arsenic (0.01 mg/L). Underlined concentrations indicate GWPS exceedances.
6. J indicates estimated concentration above the laboratory MDL and below the laboratory reporting limit.

Legend

- Upgradient Monitoring Well
- Downgradient Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Property Boundary (Approximiate)
- Gypsum Pond Boundary
- Gypsum CCR Landfill Boundary

GS-GSA-MW-9H Well ID
Li: 0.115 Lithium Concentration (mg/L)
As: 0.00103 Arsenic Concentration (mg/L)

N

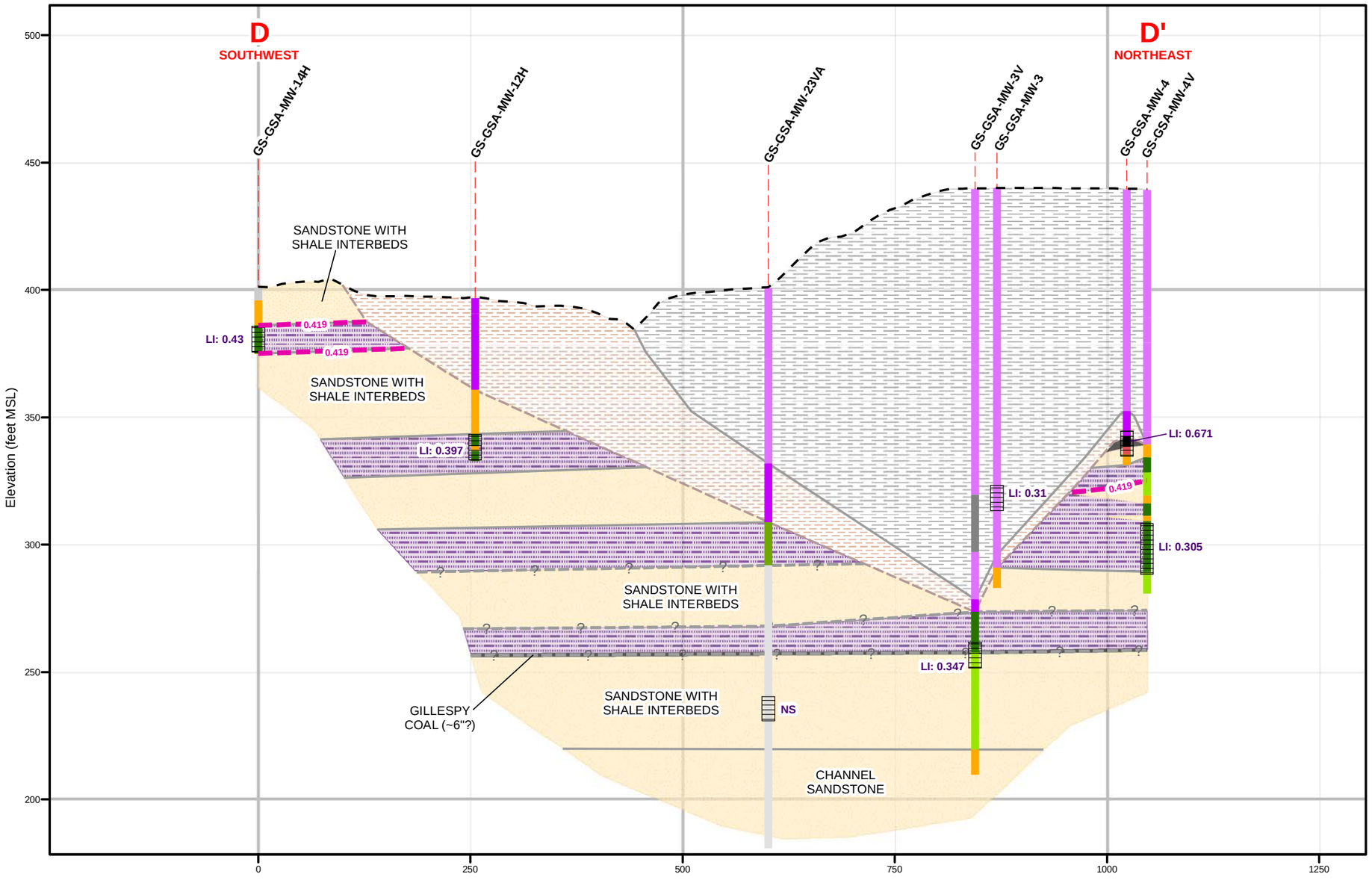
0 250 500 1,000 Feet

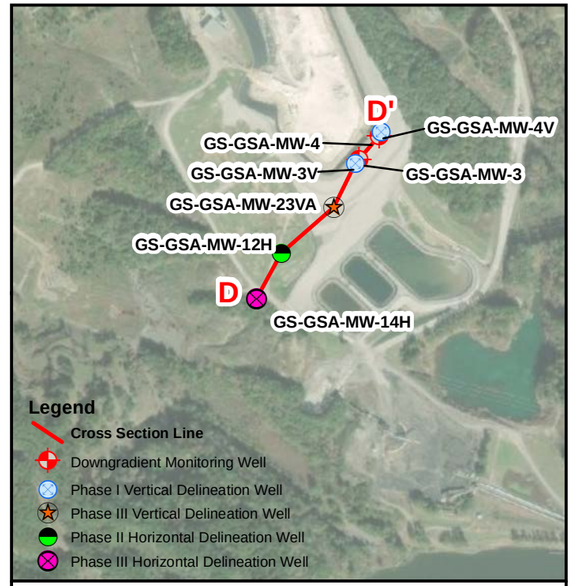
SCALE	1:6,000
DATE	7/6/2022
DRAWN BY	KWR
CHECKED BY	RFS

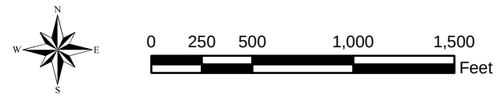
DRAWING TITLE
ARSENIC & LITHIUM CONCENTRATIONS MAP
JANUARY 2022
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 7

Southern Company







NOTES:

1. Groundwater samples collected from January 25 to 27, 2022.
2. Deeper strata projected from structural elevations of coal seams from Musgrove Mine records or from neighboring borings that extend deeper.
3. NS indicates not sampled due to lack of water sufficient for well development (GS-GSA-MW-23VA was not sampled).
4. Vertical exaggeration = 5.
5. Li indicates lithium concentration in mg/L.
6. GWPS indicated Groundwater Protection Standard.
7. GS-GSA-MW-4 exceeds the GWPS but did not exceed statistical confidence intervals and thus is not a SSL.
8. Elevated lithium concentrations in wells GS-GSA-MW-12H and GS-GSA-MW-14H appear to be unrelated to the Gypsum Pond.
9. Lithium exceedances in groundwater likely occur in discrete zones within shale/mudstone interbeds and coal seams.

Legend

- Ground Surface Elevation
- GWPS Isoconcentration for Lithium (0.419 mg/L)
- Borehole Location
- Screened Interval
- Top of Rock
- Strata Boundary
- Inferred Strata
- Mine
- CCR Fill
- Fill Materials
- Overburden
- Mine Spoils

Borehole Description

- COAL
- Hydroexcavated
- No Recovery
- Partially Weathered Rock
- Sandstone
- Sandstone and Siltstone
- Siltstone
- Shale

Geologic Units

- Backfilled Mine Overburden
- Natural Overburden
- Mudstone/Shale
- Sandstone
- Mine
- Coal

SCALE	AS SHOWN
DATE	7/6/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE

LITHIUM CONCENTRATIONS ALONG GEOLOGIC CROSS SECTION D - D' PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 8

Southern Company

Tables

Southern Company

Table 1a. - Compliance Monitoring Well Network Details
Plant Gorgas Gypsum Storage Pond (Old)

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											
MW-1	Upgradient	Mine Spoil - Pottsville Fm Interface	33.65827	-87.19083	499.19	502.38	104.5	405.10	395.10	10	1/15/2014
MW-2	Upgradient	Mine Spoil - Pottsville Fm Interface	33.65899	-87.19258	498.54	502.17	91.0	417.90	407.90	10	10/23/2014
MW-3	Upgradient	Mine Spoil - Pottsville Fm Interface	33.65841	-87.1943	522.23	525.90	115.5	417.10	407.10	10	10/23/2014
MW-4	Upgradient	Mine Spoil - Pottsville Fm Interface	33.65689	-87.19473	516.67	517.89	126.7	400.40	390.40	10	2/19/2012
GS-GSA-MW-3	Downgradient	Pottsville Fm	33.65344	-87.2165	439.75	442.63	129.7	323.35	313.35	10	12/8/2015
GS-GSA-MW-4	Downgradient	Pottsville Fm	33.65376	-87.21617	439.44	442.10	107.9	344.64	334.64	10	12/9/2015
GS-GSA-MW-8	Downgradient	Pottsville Fm	33.653	-87.21639	401.33	404.38	128.5	286.33	276.33	10	12/20/2015

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 WGS84 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.

Southern Company

Table 1b. - Delineation Well Network Details
Plant Gorgas Gypsum Storage Pond (Old)

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-GSA-MW-12H	Vertical Delineation	Pottsville Fm	33.65216	-87.21777	396.73	399.73	67.5	342.23	332.23	10	10/28/2019
GS-GSA-MW-12V	Vertical Delineation	Pottsville Fm	33.65213	-87.21735	376.76	379.50	132.7	257.16	247.16	10	5/31/2020
GS-GSA-MW-23VA	Vertical Delineation	Pottsville Fm	33.65278	-87.2169	400.84	403.60	173.2	240.80	230.80	10	6/11/2020
GS-GSA-MW-3V	Vertical Delineation	Pottsville Fm	33.65339	-87.21655	439.60	442.68	192.7	260.43	250.43	10	2/25/2019
GS-GSA-MW-4V	Vertical Delineation	Pottsville Fm	33.65381	-87.21613	439.29	442.18	155.5	307.08	287.08	20	2/25/2019
GS-GSA-MW-8V	Vertical Delineation	Pottsville Fm	33.65308	-87.21634	401.24	404.43	158.5	256.33	246.33	10	10/25/2019
GS-GSA-MW-9V	Vertical Delineation	Pottsville Fm	33.65075	-87.21589	333.32	336.22	95.1	251.55	241.55	10	5/12/2020
GS-GSA-MW-11H	Horizontal Delineation	Overburden-Pottsville Fm	33.64804	-87.21168	260.13	263.02	49.4	224.03	214.03	10	2/6/2019
GS-GSA-MW-13H	Horizontal Delineation	Overburden-Pottsville Fm	33.64812	-87.21574	263.63	266.46	34.9	241.96	231.96	10	10/29/2019
GS-GSA-MW-14H	Horizontal Delineation	Overburden-Pottsville Fm	33.65154	-87.21816	400.86	403.66	28.5	385.56	375.56	10	5/4/2020
GS-GSA-MW-15H	Horizontal Delineation	Overburden-Pottsville Fm	33.65271	-87.21872	425.62	428.16	28.3	410.26	400.26	10	5/5/2020
GS-GSA-MW-9H	Horizontal Delineation	Pottsville Fm	33.65079	-87.21584	333.04	335.83	60.3	285.94	275.94	10	2/3/2019

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 WGS84 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.

Southern Company

Table 1c. - Piezometer Well Network Details
Plant Gorgas Gypsum Storage Pond (Old)

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-GSA-MW-01	Piezometer	Pottsville Fm	33.65371	-87.2178	440.48	442.96	97.7	355.66	345.66	10	12/17/2015
GS-GSA-MW-02	Piezometer	Pottsville Fm	33.65318	-87.21716	440.04	442.84	121.8	331.41	321.41	10	12/16/2015
GS-GSA-MW-05	Piezometer	Pottsville Fm - Mine Spoil	33.65471	-87.21648	439.92	440.32	40.6	410.12	400.12	10	12/18/2015
GS-GSA-MW-06	Piezometer	Pottsville Fm - Open Hole Piezometer	33.65535	-87.2168	440.52	440.88	207.0				11/4/2015
GS-GSA-MW-07	Piezometer	Pottsville Fm - Mine Spoil Interface	33.65276	-87.21705	399.57	399.85	67.4	342.87	332.87	10	1/12/2016
GS-GSA-MW-09	Piezometer	Pottsville Fm	33.65363	-87.21574	400.16	403.23	69.6	344.06	334.06	10	1/11/2016
GS-GSA-MW-10H	Piezometer	Overburden-Pottsville Fm	33.65204	-87.2143	336.56	339.52	29.5	320.56	310.56	10	2/4/2019
GS-GSA-PZ-04	Piezometer	Pottsville Fm	33.65604	-87.21907	474.96	477.79	127.2	360.96	350.96	10	10/22/2015
GS-GSA-PZ-05	Piezometer	Pottsville Fm - Pratt Coal	33.65461	-87.21869	472.40	472.45	79.0	403.90	393.90	10	10/27/2015
GS-GSA-PZ-16	Piezometer	Overburden-Pottsville Fm	33.65297	-87.21902	433.79	436.40	27.9	418.90	408.90	10	5/3/2020
GS-GSA-PZ-17	Piezometer	Overburden-Pottsville Fm	33.65416	-87.21927	475.94	475.94	57.7	428.64	418.64	10	5/2/2020
GS-GSA-PZ-18	Piezometer	Overburden-Pottsville Fm	33.65424	-87.22053	489.93	489.93	78.2	422.13	412.13	10	5/19/2020
GS-GSA-PZ-19	Piezometer	Pottsville Fm	33.65403	-87.22311	463.50	463.50	162.6	311.30	301.30	10	5/29/2020
GS-GSA-PZ-20	Piezometer	Pottsville Fm	33.65478	-87.22453	460.34	460.34	124.8	345.94	335.94	10	5/18/2020
GS-GSA-PZ-21	Piezometer	Pottsville Fm	33.6549	-87.22308	458.21	460.94	70.2	401.14	391.14	10	5/14/2020
GS-GSA-PZ-22	Piezometer	Overburden-Pottsville Fm	33.65548	-87.22414	476.56	479.46	76.0	413.86	403.86	10	5/16/2020
GS-GSA-PZ-2A	Piezometer	Pottsville Fm	33.65753	-87.22016	488.67	491.52	122.4	379.52	369.52	10	11/14/2015

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 WGS84 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.

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Table 2. Parameters And Reporting Limits

Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

Appendix III Parameters			
Parameters	**Analytical Methods**	**Reporting Limits**	**Units of Measure**
Boron	EPA 200.7	0.1015	mg/L
Calcium	EPA 200.7	0.406-40.599998	mg/L
Chloride	SM4500Cl E	1-40	mg/L
Fluoride	SM4500F G 2017	0.1	mg/L
pH_Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	1-125	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	mg/L
Beryllium	EPA 200.8	0.001015	mg/L
Cadmium	EPA 200.8	0.000203	mg/L
Chromium	EPA 200.8	0.001015	mg/L
Cobalt	EPA 200.8	0.000203	mg/L
Lead	EPA 200.8	0.000203	mg/L
Lithium	EPA 200.7	0.02	mg/L
Mercury	EPA 245.1	0.0005	mg/L
Molybdenum	EPA 200.8	0.000203	mg/L
Selenium	EPA 200.8	0.001015	mg/L
Thallium	EPA 200.8	0.000203	mg/L
Combined Radium 226 + 228	Total Radium Calculation	NA	pCi/L

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

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Table 3. Groundwater Elevations Summary

Plant Gorgas Gypsum Storage Pond (Old)
01/24/2022 - 01/24/2022

Well	Measure Date	TOCElevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)
GS-GSA-MW-3	01/24/2022	442.63	107.72	334.91
GS-GSA-MW-4	01/24/2022	442.1	88.38	353.72
GS-GSA-MW-8	01/24/2022	404.38	77.48	326.90
GS-GSA-MW-3V	01/24/2022	442.68	123.78	318.90
GS-GSA-MW-4V	01/24/2022	442.18	113.42	328.76
GS-GSA-MW-9H	01/24/2022	335.83	44.07	291.76
GS-GSA-MW-11H	01/24/2022	263.02	6.57	256.45
GS-GSA-MW-8V	01/24/2022	404.43	86.45	317.98
GS-GSA-MW-12H	01/24/2022	399.73	58.48	341.25
GS-GSA-MW-13H	01/24/2022	266.46	8.93	257.53
GS-GSA-MW-01	01/24/2022	442.96	95.12	347.84
GS-GSA-MW-02	01/24/2022	442.84	107.69	335.15
GS-GSA-PZ-2A	01/24/2022	491.52	119.96	371.56
GS-GSA-MW-10H	01/24/2022	339.52	19.41	320.11
GS-GSA-MW-9V	01/24/2022	336.22	44.78	291.44
GS-GSA-MW-12V	01/24/2022	379.5	61.59	317.91
GS-GSA-MW-23VA	01/24/2022	403.6	133.77	269.83
GS-GSA-MW-14H	01/24/2022	403.66	18.31	385.35
GS-GSA-MW-15H	01/24/2022	428.16	24.16	404.00
GS-GSA-PZ-16	01/24/2022	436.4	15.20	421.20
GS-GSA-PZ-17	01/24/2022	475.94	45.54	430.40
GS-GSA-PZ-18	01/24/2022	489.93	60.49	429.44
GS-GSA-PZ-19	01/24/2022	463.5	119.97	343.53
GS-GSA-PZ-20	01/24/2022	460.34	116.14	344.20
GS-GSA-PZ-21	01/24/2022	460.94	84.05	376.89
GS-GSA-PZ-22	01/24/2022	479.46	51.07	428.39
MW-1	01/24/2022	502.38	90.76	411.62
MW-2	01/24/2022	502.17	83.72	418.45
MW-3	01/24/2022	525.9	106.91	418.99
MW-4	01/24/2022	517.89	116.11	401.78
GS-GSA-MW-05	01/24/2022	440.32	Dry	Dry
GS-GSA-MW-06	01/24/2022	440.88	Dry	Dry

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

Table 3. Groundwater Elevations Summary

Plant Gorgas Gypsum Storage Pond (Old)
01/24/2022 - 01/24/2022

GS-GSA-MW-07	01/24/2022	399.85	67.27	332.58
GS-GSA-MW-09	01/24/2022	403.23	Dry	Dry
GS-GSA-PZ-04	01/24/2022	477.79	126.81	350.98
GS-GSA-PZ-05	01/24/2022	472.45	Dry	Dry

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

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Table 4a. Relative Percent Difference (RPD) Calculations

Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/26/2022

GS-GSA-MW-13H				
Sample Date = 1/26/2022				
Analyte	**Units**	**Original Result**	**Duplicate Result**	**RPD (%)**
Boron	mg/L	0.206	0.205	0.49%
Calcium	mg/L	158	161	1.88%
Chloride	mg/L	10.2	10.2	0.00%
Fluoride	mg/L	0.208	0.212	1.91%
Sulfate	mg/L	883	918	3.89%
Arsenic	mg/L	0.283	0.283	0.00%
Barium	mg/L	0.0334	0.0351	4.96%
Cobalt	mg/L	0.228	0.23	0.87%
Lithium	mg/L	0.0301	0.0298	1.00%
Molybdenum	mg/L	0.00126	0.00145	14.02%
GS-GSA-MW-12H				
Sample Date = 1/25/2022				
Analyte	**Units**	**Original Result**	**Duplicate Result**	**RPD (%)**
Calcium	mg/L	124	123	0.81%
Chloride	mg/L	1.83	1.86	1.63%
Sulfate	mg/L	903	895	0.89%
Arsenic	mg/L	0.00129	0.00118	8.91%
Barium	mg/L	0.013	0.013	0.00%
Beryllium	mg/L	0.00729	0.00693	5.06%
Cadmium	mg/L	0.00333	0.00333	0.00%
Cobalt	mg/L	0.315	0.316	0.32%
Lead	mg/L	0.0052	0.00506	2.73%
Lithium	mg/L	0.397	0.4	0.75%
Selenium	mg/L	0.00311	0.00311	0.00%
Thallium	mg/L	0.00032	0.00033	2.80%
MW-2				
Sample Date = 1/25/2022				
Analyte	**Units**	**Original Result**	**Duplicate Result**	**RPD (%)**
Calcium	mg/L	179	180	0.56%
Chloride	mg/L	2.14	2.28	6.34%
Fluoride	mg/L	0.204	0.239	15.80%
Sulfate	mg/L	842	847	0.59%
Arsenic	mg/L	0.00033	0.00033	0.00%
Barium	mg/L	0.0122	0.0127	4.02%

Table 4a. Relative Percent Difference (RPD) Calculations

Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/26/2022

MW-2				
Sample Date = 1/25/2022				
Analyte	**Units**	**Original Result**	**Duplicate Result**	**RPD (%)**
Cobalt	mg/L	0.0166	0.0167	0.60%
Lithium	mg/L	0.051	0.0502	1.58%

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 Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

Parameters Detected Above MDL					
Sample Date	**QC Location**	**Parameter**	**Blank Concentration**	**Units**	**MDL**
01/27/2022	FB-2	Arsenic	0.00011 J	mg/L	7E-05
01/27/2022	EB-1	Chromium	0.00025 J	mg/L	0.0002
01/27/2022	FB-2	Chromium	0.00027 J	mg/L	0.0002
01/25/2022	EB-1	Chromium	0.00021 J	mg/L	0.0002

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

Table 5. Summary of Background Levels and Groundwater Protection Standards

Plant Gorgas Gypsum Storage Pond (Old)

Appendix III Analytes			
Analyte	**Units**	**Background**	**GWPS**
Fluoride	mg/L	0.55	4
Appendix IV Analytes			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.0164	2
Beryllium	mg/L	0.0169	0.0185
Cadmium	mg/L	0.00473	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.347	1.07
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.237	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.0209	0.05
Thallium	mg/L	0.001	0.002
Combined Radium 226 + 228	pCi/L	0.927	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).

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

Field Parameters								
Hydraulic Location	**Well**	**Sample Date**	**DO mg/L**	**ORP mv**	**Turbidity NTU**	**Field Temperature C**	**pH_Field SU**	**Conductivity uS/cm**
Upgradient	MW-1	01/25/2022	0.96	342.61	1.07	20.4	5.11	2248.18
Upgradient	MW-2	01/25/2022	0.9	76.06	1.13	20.03	6.22	1777.69
Upgradient	MW-3	01/25/2022	6.2	262.48	2.05	20.01	5.9	3139.08
Upgradient	MW-4	01/25/2022	2.8	241.8	1.1	21.37	6.3	2843.39
Downgradient	GS-GSA-MW-3	01/26/2022	0.25	9.36	9.2	19.18	6.52	4478
Downgradient	GS-GSA-MW-4	01/27/2022	0.43	304.11	1.54	19.63	3.73	2062.07
Downgradient	GS-GSA-MW-8	01/27/2022	0.29	-83.27	2.64	21.13	6.85	3489.16
Vert. Delineation	GS-GSA-MW-12H	01/25/2022	0.17	326.12	8	19.14	4.11	1495.64
Vert. Delineation	GS-GSA-MW-12V	01/27/2022	0.17	-42.11	0.58	20.23	6.19	3900.53
Vert. Delineation	GS-GSA-MW-3V	01/26/2022	1.21	-14.84	2.45	15.02	6.61	3876.99
Vert. Delineation	GS-GSA-MW-4V	01/27/2022	0.3	0.56	9.53	18.5	6.17	1619.95
Vert. Delineation	GS-GSA-MW-8V	01/26/2022	0.8	-190.65	1.06	19.12	8.18	1722.53
Vert. Delineation	GS-GSA-MW-9V	01/26/2022	0.84	-58.64	0.42	19	6.89	3210.84
Horiz. Delineation	GS-GSA-MW-11H	01/26/2022	0.28	88.54	8.2	19.79	5.95	1445.07
Horiz. Delineation	GS-GSA-MW-13H	01/26/2022	0.14	-26.49	2.51	20.26	6.08	1543.63
Horiz. Delineation	GS-GSA-MW-14H	01/27/2022	0.22	303.51	4.14	18.9	4.1	1290.46
Horiz. Delineation	GS-GSA-MW-9H	01/26/2022	0.2	146.63	1.99	20.94	5.35	2589.92
Piezometer	GS-GSA-PZ-17	01/27/2022	0.34	134.92	0.97	18.64	4.63	756.96
Piezometer	GS-GSA-PZ-18	01/27/2022	0.37	182.99	0.73	16.16	3.89	958.69
Piezometer	GS-GSA-PZ-19	01/25/2022	0.19	-0.85	1.05	17.58	6.68	1292.6
Piezometer	GS-GSA-PZ-20	01/25/2022	0.28	20.64	4.6	17.62	6.33	1181.7

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

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

Field Parameters								
Hydraulic Location	Well	Sample Date	DO mg/L	ORP mv	Turbidity NTU	Field Temperature C	pH_Field SU	Conductivity uS/cm
Piezometer	GS-GSA-PZ-21	01/25/2022	0.31	-58.36	0.89	16.15	6.94	797.36
Piezometer	GS-GSA-PZ-22	01/25/2022	0.3	-29.31	7.59	17.45	5.99	921.21

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

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	MW-1	01/25/2022	<0.03	150	2.09	0.101	5.11	1430
Upgradient	MW-2	01/25/2022	<0.03	179	2.14	0.204	6.22	842
Upgradient	MW-3	01/25/2022	<0.03	285	2.12	0.325	5.9	2550
Upgradient	MW-4	01/25/2022	0.0408 J	259	1.54	0.364	6.3	1930
Downgradient	GS-GSA-MW-3	01/26/2022	2.5	517	255	0.447	6.52	2620
Downgradient	GS-GSA-MW-4	01/27/2022	6.1	181	103	<0.06	3.73	1130
Downgradient	GS-GSA-MW-8	01/27/2022	2.76	491	122	0.179	6.85	2000
Vert. Delineation	GS-GSA-MW-12H	01/25/2022	0.0645 J	123	1.83	<0.06	4.11	903
Vert. Delineation	GS-GSA-MW-12V	01/27/2022	1.52	347	171	0.329	6.19	1990
Vert. Delineation	GS-GSA-MW-3V	01/26/2022	2.81	448	238	0.516	6.61	2010
Vert. Delineation	GS-GSA-MW-4V	01/27/2022	3.47	172	51.9	0.373	6.17	825
Vert. Delineation	GS-GSA-MW-8V	01/26/2022	0.153	31.5	18.9	0.306	8.18	199
Vert. Delineation	GS-GSA-MW-9V	01/26/2022	0.11	417	57.2	0.155	6.89	1820
Horiz. Delineation	GS-GSA-MW-11H	01/26/2022	<0.03	143	5.4	0.0809 J	5.95	745
Horiz. Delineation	GS-GSA-MW-13H	01/26/2022	0.206	161	10.2	0.212	6.08	883
Horiz. Delineation	GS-GSA-MW-14H	01/27/2022	0.148	124	3.75	<0.06	4.1	784
Horiz. Delineation	GS-GSA-MW-9H	01/26/2022	5.87	300	59.3	0.117	5.35	1660
Piezometer	GS-GSA-PZ-17	01/27/2022	0.064 J	73.5	1.64	<0.06	4.63	379
Piezometer	GS-GSA-PZ-18	01/27/2022	0.0539 J	84.8	1.92	<0.06	3.89	532
Piezometer	GS-GSA-PZ-19	01/25/2022	0.0561 J	117	13.2	0.194	6.68	344
Piezometer	GS-GSA-PZ-20	01/25/2022	0.0765 J	96.7	13	0.191	6.33	437

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

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

EPA Appendix III Set								
Hydraulic Location	**Well**	**Sample Date**	**Boron mg/L**	**Calcium mg/L**	**Chloride mg/L**	**Fluoride mg/L**	**pH_Field SU**	**Sulfate mg/L**
Piezometer	GS-GSA-PZ-21	01/25/2022	<0.03	39	12.8	0.354	6.94	32.8
Piezometer	GS-GSA-PZ-22	01/25/2022	0.0754 J	74.6	5.76	0.169	5.99	440

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

Southern Company

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	MW-1	01/25/2022	<0.000508	0.000248	0.0098	<0.000406	0.00196	0.000434 J	0.0654	0.101
Upgradient	MW-2	01/25/2022	<0.000508	0.000334	0.0122	<0.000406	8.12e-005 J	0.000258 J	0.0166	0.204
Upgradient	MW-3	01/25/2022	<0.000508	0.000275	0.00821	<0.000406	0.00178	0.000509 J	0.0051	0.325
Upgradient	MW-4	01/25/2022	<0.000508	8.75e-005 J	0.00908	<0.000406	<6.8e-005	0.000208 J	<6.8e-005	0.364
Downgradient	GS-GSA-MW-3	01/26/2022	0.000658 J	0.00136	0.0148	0.00179	<6.8e-005	0.00048 J	0.0794	0.447
Downgradient	GS-GSA-MW-4	01/27/2022	<0.000508	0.00274	0.0131	0.00768	0.00336	0.00107	0.406	<0.06
Downgradient	GS-GSA-MW-8	01/27/2022	<0.000508	0.000275	0.0238	<0.000406	<6.8e-005	0.000456 J	0.000674	0.179
Vert. Delineation	GS-GSA-MW-12H	01/25/2022	<0.000508	0.00129	0.013	0.00729	0.00333	0.000334 J	0.315	<0.06
Vert. Delineation	GS-GSA-MW-12V	01/27/2022	<0.000508	0.000665	0.0125	<0.000406	<6.8e-005	0.000252 J	0.000216	0.329
Vert. Delineation	GS-GSA-MW-3V	01/26/2022	0.00052 J	0.00036	0.0161	<0.000406	<6.8e-005	0.000497 J	0.012	0.516
Vert. Delineation	GS-GSA-MW-4V	01/27/2022	0.000544 J	0.00124	0.0108	0.00431	<6.8e-005	0.000291 J	0.124	0.373
Vert. Delineation	GS-GSA-MW-8V	01/26/2022	<0.000508	0.00542	0.137	<0.000406	<6.8e-005	0.000229 J	<6.8e-005	0.306
Vert. Delineation	GS-GSA-MW-9V	01/26/2022	<0.000508	0.00128	0.012	<0.000406	<6.8e-005	<0.000203	0.000541	0.155
Horiz. Delineation	GS-GSA-MW-11H	01/26/2022	<0.000508	0.000427	0.0139	<0.000406	0.000294	0.000524 J	0.00479	0.0809 J
Horiz. Delineation	GS-GSA-MW-13H	01/26/2022	<0.000508	0.283	0.0351	<0.000406	<6.8e-005	0.000272 J	0.23	0.208
Horiz. Delineation	GS-GSA-MW-14H	01/27/2022	<0.000508	0.00128	0.0122	0.00718	0.00137	0.000502 J	0.178	<0.06
Horiz. Delineation	GS-GSA-MW-9H	01/26/2022	<0.000508	0.00113	0.0146	0.00063 J	0.00024	0.000243 J	0.141	0.117
Piezometer	GS-GSA-PZ-17	01/27/2022	0.000508 J	0.00136	0.0177	0.00456	0.00151	0.000896 J	0.129	<0.06
Piezometer	GS-GSA-PZ-18	01/27/2022	<0.000508	0.00382	0.0107	0.00491	0.000272	0.00157	0.0845	<0.06
Piezometer	GS-GSA-PZ-19	01/25/2022	<0.000508	0.00162	0.0373	<0.000406	<6.8e-005	<0.000203	0.000689	0.194
Piezometer	GS-GSA-PZ-20	01/25/2022	<0.000508	0.00223	0.0201	<0.000406	<6.8e-005	0.000256 J	0.00273	0.191

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

Southern Company

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

EPA Appendix IV Set								
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L
Upgradient	MW-1	01/25/2022	<6.8e-005	0.0239	<0.0003	<6.8e-005	0.00216	<6.8e-005
Upgradient	MW-2	01/25/2022	<6.8e-005	0.051	<0.0003	<6.8e-005	<0.000508	<6.8e-005
Upgradient	MW-3	01/25/2022	<6.8e-005	0.077	<0.0003	8.01e-005 J	0.0154	<6.8e-005
Upgradient	MW-4	01/25/2022	<6.8e-005	0.0433	<0.0003	0.000114 J	0.00224	<6.8e-005
Downgradient	GS-GSA-MW-3	01/26/2022	0.00014 J	0.31	<0.0003	0.000225	0.00117	<6.8e-005
Downgradient	GS-GSA-MW-4	01/27/2022	0.00103	0.671	<0.0003	<6.8e-005	0.00817	0.000223
Downgradient	GS-GSA-MW-8	01/27/2022	0.00015 J	0.185	<0.0003	0.000122 J	<0.000508	<6.8e-005
Vert. Delineation	GS-GSA-MW-12H	01/25/2022	0.0052	0.397	<0.0003	<6.8e-005	0.00311	0.000326
Vert. Delineation	GS-GSA-MW-12V	01/27/2022	<6.8e-005	0.303	<0.0003	0.00268	<0.000508	<6.8e-005
Vert. Delineation	GS-GSA-MW-3V	01/26/2022	<6.8e-005	0.347	<0.0003	0.00012 J	<0.000508	<6.8e-005
Vert. Delineation	GS-GSA-MW-4V	01/27/2022	7.43e-005 J	0.305	<0.0003	9.08e-005 J	0.00101 J	<6.8e-005
Vert. Delineation	GS-GSA-MW-8V	01/26/2022	<6.8e-005	0.233	<0.0003	0.000782	<0.000508	<6.8e-005
Vert. Delineation	GS-GSA-MW-9V	01/26/2022	<6.8e-005	0.312	<0.0003	0.000299	<0.000508	<6.8e-005
Horiz. Delineation	GS-GSA-MW-11H	01/26/2022	0.000231	<0.007105	<0.0003	0.000112 J	<0.000508	<6.8e-005
Horiz. Delineation	GS-GSA-MW-13H	01/26/2022	<6.8e-005	0.0301	<0.0003	0.00145	0.000694 J	<6.8e-005
Horiz. Delineation	GS-GSA-MW-14H	01/27/2022	0.000865	0.43	<0.0003	9.4e-005 J	0.00401	6.81e-005 J
Horiz. Delineation	GS-GSA-MW-9H	01/26/2022	0.000125 J	0.115	<0.0003	<6.8e-005	0.00129	0.000222
Piezometer	GS-GSA-PZ-17	01/27/2022	0.00362	0.294	<0.0003	<6.8e-005	0.00269	0.000184 J
Piezometer	GS-GSA-PZ-18	01/27/2022	0.000229	0.246	<0.0003	<6.8e-005	0.00298	7.96e-005 J
Piezometer	GS-GSA-PZ-19	01/25/2022	<6.8e-005	0.0782	<0.0003	0.00068	<0.000508	<6.8e-005
Piezometer	GS-GSA-PZ-20	01/25/2022	0.000143 J	0.0884	<0.0003	0.000973	0.00273	0.000208

Notes:
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2. "<" indicates the result was not detected above the MDL and is considered a non-detect.
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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocurries per liter.
6. Shaded cells indicate result greater than GWPS, but does not necessarily indicate an SSL.

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

EPA Appendix IV Set										
Hydraulic Location	**Well**	**Sample Date**	**Antimony mg/L**	**Arsenic mg/L**	**Barium mg/L**	**Beryllium mg/L**	**Cadmium mg/L**	**Chromium mg/L**	**Cobalt mg/L**	**Fluoride mg/L**
Piezometer	GS-GSA-PZ-21	01/25/2022	<0.000508	0.00262	0.151	<0.000406	<6.8e-005	0.000585 J	0.00257	0.354
Piezometer	GS-GSA-PZ-22	01/25/2022	<0.000508	0.0446	0.0176	<0.000406	<6.8e-005	0.000303 J	0.00294	0.169

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

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Gorgas Gypsum Storage Pond (Old)
01/25/2022 - 01/27/2022

EPA Appendix IV Set								
Hydraulic Location	**Well**	**Sample Date**	**Lead mg/L**	**Lithium mg/L**	**Mercury mg/L**	**Molybdenum mg/L**	**Selenium mg/L**	**Thallium mg/L**
Piezometer	GS-GSA-PZ-21	01/25/2022	0.000251	0.0175 J	<0.0003	0.00297	<0.000508	<6.8e-005
Piezometer	GS-GSA-PZ-22	01/25/2022	9.04e-005 J	0.0718	<0.0003	0.000931	<0.000508	<6.8e-005

Notes:
1. "J" indicates the result was detected above the MDL but below the PQL
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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 measurment.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocurries per liter.
6. Shaded cells indicate result greater than GWPS, but does not necessarily indicate an SSL.

Appendix A

Appendix A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	GS-GSA-MW-11H							GS-GSA-MW-12H							GS-GSA-MW-12V			
	Date	03/04/2019	10/16/2019	02/04/2020	08/04/2020	03/02/2021	07/14/2021	1/26/2022	11/26/2019	01/23/2020	02/04/2020	08/05/2020	03/02/2021	07/14/2021	1/25/2022	08/05/2020	03/03/2021	07/14/2021	1/27/2022
Appendix III																			
Boron	mg/L	<0.02	0.0352 J	<0.03	<0.03	0.0305 J	<0.03	<0.03	0.0798 J	--	0.0748 J	0.0748 J	0.0875 J	0.0742 J	0.0645 J	1.55	1.54	1.55	1.52
Calcium	mg/L	160	143	163	139	139	133	144	144	--	158	126	124	124	124	350	353	338	345
Chloride	mg/L	3.84	4.45	4.27	4.51	4.63	4.7	5.4	2.43	--	2.34	2	2.28	1.69	1.83	159	152	189	171
Fluoride	mg/L	0.0973 J	0.0875 J	0.0743 J	0.109	0.0758 J	0.0848 J	0.0809 J	<0.05	--	<0.05	<0.06	<0.06	<0.06	<0.06	0.217	0.243	0.335	0.329
pH_Field	SU	6.04	6.07	6.02	5.74	5.89	5.72	5.95	4.37	--	4.57	4.13	4.11	4.04	4.11	6.15	6.11	6.21	6.19
Sulfate	mg/L	779	750	725	694	835	747	745	997	--	978	811	890	878	895	1830	1930	2000	1990
TDS	mg/L	1120	1150	1200	1230	1190	1190	1140	1580	--	1580	1380	1390	1330	1310	3330	3450	3360	3170
Appendix IV																			
Antimony	mg/L	0.00109 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	--	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	0.00039	0.000406	0.000427	0.00194 J	--	0.00157 J	0.00158 J	0.00138	0.00161	0.0011	<0.001	0.000339	0.000475	0.000665
Barium	mg/L	0.0247	0.0192	0.0148	0.0138	0.0118	0.0127	0.0139	0.0184	--	0.0141	0.016	0.0134	0.013	0.013	0.0157	0.0126	0.0116	0.0125
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	0.0084	--	0.00709	0.00747	0.00703	0.00755	0.00693	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	0.000366	0.000285	0.000294	0.00351	--	0.00301	0.00393	0.00319	0.00301	0.00315	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	0.000295 J	0.00034 J	0.000208 J	<0.002	--	<0.002	<0.002	0.000242 J	0.000592 J	0.000388 J	<0.002	<0.000203	0.000252 J	0.000252 J
Cobalt	mg/L	0.00664	0.00598	0.00582	0.0061	0.00512	0.00475	0.00505	0.435	--	0.351	0.436	0.307	0.299	0.317	<0.002	0.00028	0.000178 J	0.000162 J
Combined Radium 226 + 228	pCi/L	0.135 U	0.189 U	0.319 U	0.0315 U	0.308 U	0.398 U	0.506 U	0.996	1.02	0.939	-0.306 U	2.18	1.42	1.22 U	-0.284 U	0.388 U	0.657 U	0.361 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	0.000145 J	0.00014 J	0.000231	0.00271 J	--	0.00334 J	0.00329 J	0.00478	0.00557	0.0052	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	0.449	--	0.394	0.441	0.456	0.454	0.395	0.334	0.411	0.374	0.285
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	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	0.000112 J	<0.002	--	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	0.00247 J	0.00123	0.00203	0.00183
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	0.00614 J	--	<0.002	0.00417 J	0.00463	0.00441	0.00317	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	0.000375 J	--	0.000491 J	0.000297 J	0.000371	0.000343	0.000317	<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 A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	GS-GSA-MW-13H							GS-GSA-MW-14H				GS-GSA-MW-3V						
	Date	11/26/2019	01/23/2020	02/04/2020	08/04/2020	03/02/2021	07/14/2021	1/26/2022	08/05/2020	03/03/2021	07/13/2021	1/27/2022	03/05/2019	10/14/2019	02/03/2020	08/04/2020	03/03/2021	07/15/2021	1/26/2022
Appendix III																			
Boron	mg/L	0.201	--	0.202	0.263	0.206	0.229	0.222	0.158	0.203	0.139	0.147	0.895	2.38	3.06	2.8	2.99	3.04	2.82
Calcium	mg/L	166	--	171	192	164	172	161	141	137	131	125	329	368	504	443	466	453	481
Chloride	mg/L	13.1	--	12.9	12.7	10.9	11.5	10.2	3.28	4.8	2.41	3.75	194	298	338	305	307	294	238
Fluoride	mg/L	0.18	--	0.115	0.113	0.167	0.187	0.208	0.082 J	<0.06	<0.06	<0.06	0.249	0.37	0.438	0.349	0.458	0.493	0.516
pH_Field	SU	6.03	--	6	5.89	5.85	5.55	6.08	3.83	4.02	3.8	4.1	6.7	6.39	5.88	5.9	5.76	5.92	6.61
Sulfate	mg/L	731	--	720	773	861	880	918	796	803	748	784	1170	1710	1970	1860	1930	1960	2010
TDS	mg/L	1220	--	1200	1350	1450	1300	1360	1280	1260	1180	1130	2170	3200	3660	3530	3640	3430	3150
Appendix IV																			
Antimony	mg/L	<0.0008	--	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	<0.000508	0.00179 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	0.00052 J
Arsenic	mg/L	0.075	--	0.16	0.103	0.293	0.104	0.283	0.00181 J	0.00155	0.00172	0.00128	<0.001	<0.001	<0.001	<0.001	0.000296	0.000285	0.00036
Barium	mg/L	0.0431	--	0.0296	0.0275	0.0315	0.0224	0.0351	0.0113	0.0109	0.0117	0.0122	0.0956	0.0451	0.0215	0.017	0.0181	0.0157	0.0161
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	<0.000406	<0.000406	0.000418 J	0.00879	0.00818	0.00883	0.00718	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	--	<0.0003	<0.0003	<6.8e-005	<6.8e-005	7e-005 J	0.0018	0.0016	0.00142	0.00137	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	--	<0.002	<0.002	0.000285 J	0.000322 J	0.000232 J	<0.002	<0.000203	0.0005 J	0.000368 J	<0.002	<0.002	<0.002	<0.002	<0.000203	0.00027 J	0.000248 J
Cobalt	mg/L	0.0488	--	0.0442	0.111	0.143	0.119	0.288	0.237	0.202	0.207	0.178	0.0059	0.00845	0.0135	0.0133	0.0134	0.0121	0.0132
Combined Radium 226 + 228	pCi/L	0.559	0.55	0.624	-0.402 U	0.686 U	0.826 U	0.354 U	0.758 U	0.185 U	1.06 U	0.247 U	0.932	0.184 U	0.408 U	-0.00668 U	1.11 U	0.362 U	0.546 U
Lead	mg/L	<0.001	--	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	0.00122 J	0.000876	0.00096	0.000865	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0509	--	0.0506	0.0534	0.0439	0.0524	0.0309	0.512	0.54	0.518	0.426	0.309	0.38	0.46	0.395	0.455	0.441	0.347
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	<0.002	--	<0.002	<0.002	0.00138	0.000389	0.00126	<0.002	7.06e-005 J	<6.8e-005	9.4e-005 J	0.00347 J	<0.002	<0.002	<0.002	7.93e-005 J	8.72e-005 J	9.31e-005 J
Selenium	mg/L	<0.002	--	<0.002	<0.002	<0.000507	<0.000508	0.000964 J	0.00571 J	0.00554	0.00607	0.00401	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	7.98e-005 J	<6.8e-005	6.81e-005 J	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	GS-GSA-MW-4V							GS-GSA-MW-8V							GS-GSA-MW-9H							GS-GSA-MW-9V				GS-GSA-PZ-17			
	Date	03/05/2019	10/14/2019	02/03/2020	08/05/2020	03/03/2021	07/14/2021	1/27/2022	11/26/2019	01/22/2020	02/05/2020	08/05/2020	03/01/2021	07/14/2021	1/26/2022	03/05/2019	10/16/2019	02/04/2020	08/04/2020	03/02/2021	07/13/2021	1/26/2022	08/04/2020	03/01/2021	07/13/2021	1/26/2022	08/04/2020	03/03/2021	07/13/2021	1/27/2022
Appendix III																														
Boron	mg/L	7.15	5.64	5.25	4.41	4.09	3.68	3.47	0.134	--	0.136	0.131	0.145	0.147	0.149	12.8	10.7	9.63	8.53	6.68	5.84	5.87	0.149	0.147	0.125	0.104	0.168	0.0643 J	0.111	0.0626 J
Calcium	mg/L	249	173	184	167	161	162	172	37	--	37.3	31.9	26.2	29	32	578	363	413	346	333	312	300	434	428	408	417	218	54.3	165	73.5
Chloride	mg/L	191	122	101	80.9	70.8	68.4	51.9	6.88	--	9.05	13.9	19.4	16.7	18.9	313	145	139	109	84.7	78.6	59.3	58.6	58.7	62	57.2	1.7	1.58	1.39	1.64
Fluoride	mg/L	0.477	0.449	0.555	0.363	0.262	0.276	0.373	0.195	--	0.162	0.256	0.346	0.339	0.306	0.239	0.101	0.205	0.127	0.094 J	0.182	0.117	0.135	0.12	0.211	0.155	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	6.19	5.89	5.84	5.81	5.75	5.75	6.17	7.54	--	7.48	7.58	7.67	7.97	8.18	5.88	5.43	5.34	5.33	5.29	5.13	5.35	6.88	6.84	6.92	6.89	4.08	4.21	4.36	4.63
Sulfate	mg/L	871	818	808	761	746	797	825	277	--	223	243	183	196	199	2010	2020	1710	1790	1750	1750	1660	1700	1680	1820	1820	1310	320	1010	379
TDS	mg/L	1410	1340	1290	1330	1320	1340	1330	1100	--	1100	1100	1060	1060	1050	3240	3080	3110	2920	2860	2640	2490	3080	3140	2870	2890	2160	571	1550	648
Appendix IV																														
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	0.000544 J	<0.0008	--	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	0.000852 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	0.000508 J
Arsenic	mg/L	<0.001	<0.001	0.00101 J	0.00116 J	0.00107	0.00118	0.00108	0.00737	--	0.00232 J	0.00476 J	0.0105	0.00692	0.00385	<0.001	0.0019 J	0.00123 J	0.00137 J	0.00105	0.00113	0.00103	<0.001	0.00136	0.00168	0.000816	0.00495 J	0.000966	0.00435	0.0011
Barium	mg/L	0.0136	0.0123	0.0103	0.0112	0.0103	0.01	0.0108	0.0904	--	0.096	0.125	0.15	0.148	0.123	0.0312	0.0163	0.0148	0.0153	0.0149	0.0141	0.0146	0.0155	0.012	0.013	0.012	0.0181	0.0154	0.0144	0.0151
Beryllium	mg/L	0.00155 J	0.00382	0.00362	0.00416	0.0032	0.00381	0.00431	<0.0006	--	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	0.000985 J	0.000929 J	0.000882 J	0.000724 J	0.000731 J	0.00063 J	<0.0006	<0.000406	<0.000406	<0.000406	0.0145	0.00334	0.012	0.00489
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	--	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	0.000336 J	0.000362 J	0.000349 J	0.000308 J	0.000338	0.000281	0.000304	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	0.00197	0.000927	0.00231	0.00136
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.000203	0.000266 J	0.000267 J	<0.002	--	<0.002	<0.002	<0.000203	<0.000203	0.000229 J	<0.002	<0.002	<0.002	<0.002	0.000218 J	0.000264 J	0.000243 J	<0.002	<0.000203	0.000304 J	0.000221 J	0.00254 J	0.000525 J	0.002	0.000896 J
Cobalt	mg/L	0.0836	0.12	0.108	0.141	0.118	0.12	0.138	<0.002	--	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	0.14	0.168	0.159	0.178	0.163	0.141	0.149	0.00412 J	0.000992	0.000774	0.00036	0.471	0.0898	0.31	0.14
Combined Radium 226 + 228	pCi/L	0.364 U	0.369 U	0.758	0.533 U	0.325 U	0.917 U	0.624 U	0.569	0.524	0.576	1.85	1.49	1.85	0.155 U	0.852	1.29	0.441 U	-0.385 U	0.87 U	0.877 U	1.06	0.837 U	0.686 U	0.194 U	0.53 U	0.407 U	0.517 U	1.27 U	0.359 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	7.43e-005 J	<0.001	--	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<0.001	<0.001	<0.001	0.000206	0.000155 J	0.000125 J	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	0.00582	0.00178	0.00473	0.00362
Lithium	mg/L	0.369	0.317	0.332	0.322	0.345	0.337	0.294	0.28	--	0.327	0.275	0.292	0.286	0.226	0.169	0.184	0.203	0.166	0.178	0.166	0.115	0.364	0.424	0.408	0.327	1.39	0.196	1.15	0.273
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	9.08e-005 J	<0.002	--	<0.002	<0.002	0.000654	0.000258	0.000782	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	0.00423 J	0.000532	0.000562	0.000299	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	0.000749 J	0.000952 J	0.00101 J	<0.002	--	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002	0.00138	0.00141	0.00129	<0.002	<0.000507	<0.000508	<0.000508	0.0135	0.00137	0.0121	0.00269
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	--	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	0.00021 J	0.000262 J	0.000233 J	0.000265 J	0.000221	0.000131 J	0.000235	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	0.000242 J	0.000118 J	7.93e-005 J	0.000184 J

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 A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	GS-GSA-PZ-18				GS-GSA-PZ-19				GS-GSA-PZ-20				GS-GSA-PZ-21				GS-GSA-PZ-22			
	Date	**08/03/2020**	**03/03/2021**	**07/13/2021**	**1/27/2022**	**08/03/2020**	**03/02/2021**	**07/14/2021**	**1/25/2022**	**08/03/2020**	**03/02/2021**	**07/14/2021**	**1/25/2022**	**08/04/2020**	**03/02/2021**	**07/14/2021**	**1/25/2022**	**08/04/2020**	**03/02/2021**	**07/14/2021**	**1/25/2022**
Appendix III																					
Boron	mg/L	0.0671 J	0.108	0.0557 J	0.0539 J	0.0553 J	0.066 J	0.0597 J	0.0561 J	0.0833 J	0.0806 J	0.118	0.0765 J	<0.03	<0.03	<0.03	<0.03	0.108	0.0823 J	0.0841 J	0.0754 J
Calcium	mg/L	106	98.9	109	84.8	88	112	122	124	76.9	89.1	132	96.7	36.4	36.1	37.6	40.3	70.4	73	74.4	71.9
Chloride	mg/L	4.55	4.48	2.01	1.92	21.7	15.8	14.3	13.2	15	11.6	19.7	13	13.6	12.6	13.1	12.8	7.77	5.76	5.68	5.76
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	0.18	0.21	0.208	0.194	0.188	0.191	0.141	0.191	0.323	0.319	0.331	0.354	0.167	0.117	0.145	0.169
pH_Field	SU	4.09	3.83	3.94	3.89	6.32	6.46	6.57	6.68	6.03	6.23	5.9	6.33	6.94	6.87	6.67	6.94	6.42	6.24	6.1	5.99
Sulfate	mg/L	729	597	675	532	210	243	369	344	379	344	711	437	23.8	22.7	24.4	32.8	340	366	385	440
TDS	mg/L	1210	974	1060	778	740	737	945	885	798	774	1170	840	447	445	455	466	638	662	664	688
Appendix IV																					
Antimony	mg/L	0.00113 J	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	<0.000508	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.0114	0.00515	0.00611	0.00382	0.00279 J	0.00218	0.00175	0.0016	0.00214 J	0.00234	0.00136	0.002	0.00204 J	0.00237	0.00265	0.00262	0.0297	0.0331	0.0429	0.0431
Barium	mg/L	0.0111	0.0114	0.0101	0.0107	0.047	0.0409	0.0401	0.0373	0.0211	0.0205	0.018	0.0163	0.12	0.134	0.145	0.143	0.0243	0.0216	0.019	0.0176
Beryllium	mg/L	0.00829	0.006	0.00776	0.00491	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.000406	<0.000406	<0.000406	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	0.0012	0.000128 J	0.000354	0.000169 J	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00315 J	0.00196	0.00215	0.00157	<0.002	<0.000203	0.000219 J	0.000205 J	<0.002	0.000216 J	0.000297 J	0.000256 J	<0.002	0.000244 J	0.000283 J	0.000585 J	<0.002	<0.000203	0.000219 J	0.000204 J
Cobalt	mg/L	0.156	0.097	0.121	0.092	<0.002	0.000808	0.001	0.000689	0.00734	0.00254	0.0218	0.00273	<0.002	0.00193	0.0019	0.00247	0.0021 J	0.00213	0.00141	0.00311
Combined Radium 226 + 228	pCi/L	0.511 U	0.662 U	1.24 U	0.532 U	0.652 U	0.186 U	0.744 U	0.376 U	0.0893 U	0.52 U	0.347 U	0.135 U	0.839	0.776 U	1.29	0.409 U	0.114 U	0.607 U	0.806 U	0.778 U
Lead	mg/L	0.00366 J	0.00053	0.000624	0.000229	<0.001	<6.8e-005	<6.8e-005	<6.8e-005	<0.001	<6.8e-005	0.000255	0.000143 J	<0.001	<6.8e-005	<6.8e-005	0.000251	<0.001	<6.8e-005	<6.8e-005	9.04e-005 J
Lithium	mg/L	0.422	0.346	0.444	0.244	0.0753	0.0822	0.0994	0.0782	0.102	0.0992	0.212	0.0884	0.0182 J	0.0168 J	0.0174 J	0.0171 J	0.0558	0.0722	0.0683	0.0684
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	0.000107 J	<6.8e-005	<6.8e-005	<0.002	0.000804	0.000842	0.000717	<0.002	0.00125	0.000102 J	0.00101	0.00347 J	0.00353	0.00353	0.00297	0.00267 J	0.00146	0.00155	0.000931
Selenium	mg/L	0.00616 J	0.00404	0.00621	0.00298	<0.002	<0.000507	<0.000508	<0.000508	<0.002	0.00222	0.00283	0.00273	<0.002	<0.000507	<0.000508	<0.000508	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	0.000109 J	<6.8e-005	7.96e-005 J	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	0.000206	0.000386	0.000208	<0.0002	<6.8e-005	<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 A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	MW-1																									
	Date	04/26/2016	06/20/2016	08/08/2016	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/17/2017	03/22/2017	04/18/2017	05/30/2017	08/23/2017	02/13/2018	05/22/2018	06/12/2018	10/17/2018	11/19/2018	05/14/2019	10/08/2019	10/16/2019	02/03/2020	04/06/2020	07/13/2020	08/03/2020	02/22/2021	07/12/2021	1/25/2022
Appendix III																											
Boron	mg/L	0.0231 J	0.0227 J	0.0278 J	0.0247 J	0.0307 J	0.0241 J	0.0202 J	0.0201 J	0.0224 J	<0.02	<0.02	0.0253 J	--	0.0224 J	0.0214 J	0.0216 J	0.0237 J	<0.0609	<0.03	0.0385 J	<0.03	<0.03	<0.03	<0.03	0.0307 J	<0.03	<0.03
Calcium	mg/L	147	152	150	142	139	133	144	131	141	149	140	152	--	166	203	171	154	167	157	157	172	149	147	148	151	152	150
Chloride	mg/L	1.94	2.09	2.18	2.22	2.34	2.34	2.5	2.68	2.4	2.4	2.6	2.7	--	2.3	2.3	--	1.7 J	2.28	2.31	2.42	2.07	2.01	2.1	2.05	2.16	2.19	2.09
Fluoride	mg/L	0.146 J	0.148 J	0.137 J	0.133 J	0.103 J	0.05 J	0.047 J	0.09 J	0.12	0.12	0.13	0.16	0.14	0.16	0.16	--	0.15	0.119	0.0924 J	0.0756 J	0.0982 J	0.101	0.0678 J	<0.06	0.082 J	0.125	0.101
pH_Field	SU	5.2	5.18	5.12	--	5.21	5.2	5.19	5.17	5.2	5.2	5.14	5.12	5.18	5.2	5.15	5.12	5.09	5.19	5.12	5.16	5	5.21	5.14	5.08	5.06	5.13	5.11
Sulfate	mg/L	1490	1420	1460	1450	1460	1330	1420	1350	1500	1300	1400	1500	--	2100	1500	--	1300	1560	1540	1680	1510	1530	1450	1370	1400	1560	1430
TDS	mg/L	2080	2060	2070	2040	2110	2000	2070	1930	2060	2140	2240	2160	--	2380	2400	2220	2360	2340	2330	3650	2380	2240	2240	2200	2230	2210	2150
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	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0008	<0.0008	0.00137 J	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.00050 7	<0.00050 8	<0.00050 8
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000403	0.000363	0.000274
Barium	mg/L	0.00941 J	0.00951 J	0.00991 J	0.00949 J	0.0105	0.00931 J	0.00879 J	0.00929 J	0.00938 J	0.00964 J	0.00982 J	--	0.00937 J	0.0102	0.0104	0.00952 J	0.00915 J	0.00913 J	0.0109	0.0106	0.00995 J	0.00971 J	0.0101	0.0107	0.0107	0.00984	0.00926
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	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.00040 6	<0.00040 6	<0.00040 6
Cadmium	mg/L	0.00196	0.0021	0.00206	0.00182	0.00188	0.00175	0.00197	0.002	0.0019	0.00159	0.00214	--	0.0018	0.00201	0.00217	0.00228	0.00156	0.00238	0.00218	0.00225	0.00182	0.00184	0.0019	0.00237	0.00184	0.00185	0.00196
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000382 J	0.000487 J	0.000354 J
Cobalt	mg/L	0.0343	0.0413	0.0513	0.0471	0.0525	0.0527	0.0569	0.0768	0.0535	0.0442	0.0465	--	0.062	0.0443	0.0512	0.0751	0.0825	0.0485	0.0778	0.08	0.0495	0.0417	0.0532	0.0722	0.0657	0.0549	0.0671
Combined Radium 226 + 228	pCi/L	0.622	0.159 U	0.511 U	0.566 U	0.537 U	0.636	0.807	0.308 U	0.344 U	0.934	0.149 U	--	0.774	-0.091 U	1.18	--	0.862	0.509	1.47	0.204 U	0.521 U	0.309 U	0.219 U	-0.127 U	0.677 U	0.476 U	1.01 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0264 J	0.0246 J	0.0229 J	0.0236 J	0.0229 J	0.0227 J	0.0236 J	0.0228 J	0.0238 J	0.0242 J	0.0229 J	--	0.0233 J	0.0263 J	0.0251 J	0.025 J	0.0241	0.026 J	0.0268	0.0263	0.0292	0.0278	0.028	0.0259	0.0301	0.0266	0.0239
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	--	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Selenium	mg/L	0.00261 J	0.00242 J	0.00253 J	<0.002	0.00211 J	<0.002	<0.002	<0.002	0.0022 J	0.0027 J	0.00316 J	--	0.00211 J	0.00372 J	0.00409 J	<0.002	<0.002	0.00316 J	<0.002	<0.002	0.00272 J	0.00275 J	0.0025 J	0.00278 J	0.00241	0.0028	0.00216
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	MW-2																										
	Date	04/25/2016	05/05/2016	06/20/2016	08/08/2016	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/17/2017	03/22/2017	04/18/2017	05/31/2017	08/23/2017	02/13/2018	05/22/2018	06/12/2018	10/17/2018	11/19/2018	05/14/2019	10/08/2019	10/16/2019	02/03/2020	04/06/2020	07/13/2020	08/03/2020	02/22/2021	07/12/2021	1/25/2022
Appendix III																												
Boron	mg/L	0.0241 J	--	0.0284 J	0.034 J	0.0316 J	0.0367 J	0.0331 J	0.035 J	0.0259 J	0.0243 J	0.0206 J	0.0234 J	0.0267 J	--	0.0251 J	0.0275 J	0.0321 J	0.0324 J	<0.0609	0.0371 J	0.0419 J	<0.03	<0.03	<0.03	0.0317 J	<0.03	<0.03	<0.03
Calcium	mg/L	123	--	168	180	180	184	171	179	188	155	156	151	155	--	172	179	200	221	168	190	194	172	152	163	172	178	159	193
Chloride	mg/L	1.9	--	3.43	3.31	3.23	3.21	3.35	3.34	3.58	3	2.6	4.4 J	4.4	--	3.2	3.7	--	3	2.98	4.26	4.04	2.48	2.43	4.05	4.03	1.72	2.36	2.14
Fluoride	mg/L	0.149 J	--	0.148 J	0.134 J	0.129 J	0.086 J	0.027 J	0.027 J	0.066 J	0.13	0.16	0.13	0.16	0.22	0.17	0.16	--	0.18	0.17	0.164	0.114	0.182	0.207	0.132	0.122	0.209	0.196	0.204
pH_Field	SU	5.94	--	5.96	5.88	--	5.91	5.84	5.82	5.87	6.01	6.02	5.85	5.89	6.21	6.04	5.95	5.9	6.03	6.07	5.96	5.98	5.95	6.21	5.84	5.95	6.1	6.16	6.22
Sulfate	mg/L	745	--	964	1100	1130	1140	1060	1100	1160	900	870	1100	920	--	1200	860	--	1000	948	1230	1170	803	786	843	907	864	763	847
TDS	mg/L	1260	--	1620	1740	1720	1800	1800	1740	1960	1510	1580	1730	1550	--	1500	1550	1740	1990	1480	1840	1830	1440	1440	1540	1650	1620	1390	1500
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	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0008	<0.0008	0.000989 J	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	0.00111 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	<0.001	0.000295	0.000364	0.000254
Barium	mg/L	0.0134	--	0.0165	0.0162	0.0139	0.0164	0.0138	0.0144	0.0135	0.0132	0.012	0.0126	--	0.0127	0.0131	0.0138	0.0137	0.0115	0.0109	0.0151	0.0146	0.0122	0.0125	0.0145	0.0147	0.0132	0.013	0.0121
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	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.000311 J	<0.0002	<0.0002	0.000212 J	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	8.96e-005 J	8.27e-005 J	9.31e-005 J
Chromium	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000203	0.000251 J	<0.000203
Cobalt	mg/L	0.0487	--	0.0767	0.103	0.093	0.0964	0.0904	0.0857	0.0745	0.0328	0.0242	0.0441	--	0.0179	0.028	0.0366	0.0745	0.0225	0.0222	0.0674	0.073	0.0193	0.0116	0.0405	0.0589	0.0161	0.0155	0.0167
Combined Radium 226 + 228	pCi/L	--	-0.0718 U	0.295 U	0.231 U	0.65	0.845	0.994	0.537 U	-0.0159 U	0.279 U	0.32 U	0.178 U	--	0.804	0.0077 U	-0.315 U	--	0.654	0.579	0.493 U	0.046 U	-0.0245 U	0.212 U	0.0814 U	0.888 U	0.434 U	0.155 U	0.663 U
Lead	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0353 J	--	0.0583	0.0627	0.0651	0.0622	0.0293 J	0.0667	0.0636	0.0464 J	0.0446 J	0.0496 J	--	0.0615	0.0465 J	0.0472 J	0.0633	0.0584	0.0445	0.0677	0.0661	0.0534	0.0496	0.0615	0.0611	0.0625	0.0495	0.051
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	--	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<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	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	GS-GSA-MW-3																		
	Date	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/17/2017	03/20/2017	04/17/2017	05/30/2017	08/24/2017	02/13/2018	06/11/2018	10/17/2018	04/10/2019	10/14/2019	02/03/2020	08/04/2020	03/01/2021	07/14/2021	1/26/2022
Appendix III																				
Boron	mg/L	0.799	0.889	1.23	1.72	2.63	3.11	4.51	2.9	2.83	--	3.09	2.59	3.35	2.48	2.13	1.82	2.55	1.47	2.54
Calcium	mg/L	539	519.7	916	552	572	817	476	515	598	--	558	392	659	552	589	545	514	533	518
Chloride	mg/L	204	220	249	256	301	320	340	310	290	--	260	--	249	228	267	222	250	207	255
Fluoride	mg/L	0.264 J	0.276 J	0.182 J	0.238 J	0.34	0.39	0.57	0.38	0.54	0.57	0.63	--	0.738	0.619	0.427	0.389	0.449	0.556	0.447
pH_Field	SU	6.28	6.28	6.19	6.2	6.13	6.17	5.6	6.07	5.99	5.88	5.91	5.88	5.83	6.04	5.98	6.09	5.82	5.93	6.52
Sulfate	mg/L	2910	2980	2790	2880	2950	<14	2400	2900	2900	--	2900	--	2980	3110	2840	2820	2320	2880	2620
TDS	mg/L	5020	4880	5020	5090	4330	2690	4780	5170	5140	--	4960	4910	5090	5110	4920	5110	4390	4920	4260
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	0.00111 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	0.000658 J
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00405 J	<0.001	--	<0.001	<0.001	<0.001	0.00121 J	<0.001	<0.001	<0.001	0.0014	0.000572	0.00104
Barium	mg/L	0.0155	0.0156	0.0122	0.0128	0.0125	0.0124	0.0149	0.0121	--	0.0118	0.0127	0.0126	0.0153	0.0122	0.0141	0.0139	0.0154	0.0136	0.0148
Beryllium	mg/L	<0.0006	<0.0006	0.000922 J	0.00133 J	0.0017 J	0.00191 J	0.00655	0.00204 J	--	0.00387	0.00244 J	0.00345	0.00257 J	0.00162 J	0.00141 J	0.00174 J	0.00157	0.00175	0.00179
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	0.00393	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000386 J	0.000392 J	<0.000203
Cobalt	mg/L	0.0303	0.041	0.0505	0.0617	0.0793	0.0726	0.294	0.0832	--	0.124	0.138	0.49	0.151	0.102	0.0843	0.0862	0.119	0.0555	0.084
Combined Radium 226 + 228	pCi/L	0.389 U	0.683	0.242 U	0.764	0.191 U	-0.0158 U	0.307 U	0.724	--	0.633	0.773	--	--	0.297 U	--	0.45 U	0.57 U	0.668 U	0.335 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000157 J	0.00018 J	0.00014 J
Lithium	mg/L	0.362	0.371	0.416	0.401	0.497	0.533	0.47	0.479	--	0.508	0.425	0.384	0.425	0.459	0.474	0.468	0.353	0.485	0.285
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00022	0.000264	0.000225
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00521 J	<0.002	--	0.00267 J	0.00236 J	<0.002	0.00234 J	<0.002	<0.002	<0.002	0.00141	0.00151	0.00117
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	MW-3																								
	Date	04/25/2016	06/22/2016	08/09/2016	08/24/2016	10/04/2016	10/26/2016	11/21/2016	01/18/2017	03/22/2017	04/18/2017	05/31/2017	08/23/2017	02/13/2018	05/24/2018	06/12/2018	11/19/2018	04/10/2019	05/14/2019	10/08/2019	10/16/2019	02/03/2020	04/06/2020	07/13/2020	08/03/2020	02/22/2021	07/12/2021	1/25/2022
Appendix III																											
Boron	mg/L	0.028 J	0.0433 J	0.0429 J	0.0431 J	0.04 J	0.0375 J	0.0406 J	0.0548 J	0.0344 J	<0.02	0.0454 J	0.0425 J	--	0.0339 J	0.0371 J	0.0514 J	<0.03	<0.0609	0.0537 J	0.05 J	--	<0.03	0.0366 J	0.0424 J	<0.03	<0.03	<0.03
Calcium	mg/L	224	266	260	274	243	254	263	431	318	296	306	298	--	297	318	387	348	254	371	346	--	177	264	285	312	252	285
Chloride	mg/L	1.32	1.46	1.35	1.47	1.59	1.27	1.38	1.34	2	2.2	1.5 J	1.8 J	--	1.6 J	1.4 J	<1.4	2.25	2.28	1.36	1.4	--	1.72	1.34	1.17	2.22	2.13	2.12
Fluoride	mg/L	0.243 J	0.269 J	0.363	0.346	0.266 J	0.266 J	0.244 J	0.385	0.41	0.29	0.37	0.55	0.27	0.6	0.53	0.31	0.273	0.281	0.225	0.106	--	0.314	0.13	0.0766 J	0.246	0.287	0.325
pH_Field	SU	5.56	5.57	5.67	5.63	5.69	5.56	5.42	5.11	4.52	5.84	4.56	4.77	5.67	5.19	4.79	3.77	5.54	5.71	4.98	4.51	--	5.91	5.16	5.06	5.59	5.86	5.9
Sulfate	mg/L	1890	2100	2050	2190	1950	1980	2060	2620	3200	2500	2800	2600	--	2700	2500	3000	2460	2460	2950	2820	--	1670	2130	2330	3040	2380	2550
TDS	mg/L	2720	3250	3050	3080	2900	2940	3090	4020	4180	4440	3970	4050	--	3680	3820	4710	3680	3580	4720	4210	--	2630	3650	3760	4670	3510	3950
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	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0008	0.000978 J	<0.0008	<0.0008	<0.0008	--	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00122 J	<0.001	<0.001	--	<0.001	<0.001	0.00103 J	0.0012 J	<0.001	<0.001	0.0048 J	0.00389 J	--	<0.001	0.0032 J	0.00426 J	0.000789	0.000376	0.000275
Barium	mg/L	0.00803 J	0.0101	0.00889 J	0.00962 J	0.00984 J	0.00878 J	0.00833 J	0.00966 J	0.00991 J	0.00976 J	0.00866 J	--	0.00821 J	0.00977 J	0.00997 J	0.0109	0.0101	0.00922 J	0.0154	0.0128	--	0.00931 J	0.0142	0.0166	0.00981	0.00857	0.00871
Beryllium	mg/L	0.00122 J	0.00144 J	0.00331	0.00308	0.00129 J	0.0071	0.00689	0.0169	0.00686	<0.0006	0.00547	--	<0.0006	0.00164 J	0.00306	0.0185	<0.0006	<0.0006	0.0084	0.0103	--	<0.0006	0.0021 J	0.00405	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	0.0121	0.00163	0.00122	<0.0002	0.000689 J	0.00136	0.00171	0.003	0.00473	0.00117	0.00296	--	0.00232	0.00459	0.00351	0.00309	0.00337	0.0013	0.00598	0.00448	--	0.000645 J	0.0089	0.00652	0.00536	0.000937	0.00178
Chromium	mg/L	0.00373 J	0.00606 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00945 J	0.0105	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00035 J	0.000307 J	0.00034 J
Cobalt	mg/L	0.232	0.332	0.311	0.271	0.148	0.236	0.241	0.347	0.271	0.00324 J	0.225	--	0.00661 J	0.158	0.291	0.386	0.0144	0.00536	1.07	0.848	--	<0.002	0.47	0.64	0.0515	0.00567	0.00535
Combined Radium 226 + 228	pCi/L	0.484 U	0.2 U	0.378 U	0.131 U	0.514 U	0.755	0.7	0.606	0.927	0.334 U	0.8	--	0.649	0.448 U	0.234 U	0.521	--	0.176 U	0.833 U	0.0279 U	0.0246 U	0.569 U	0.53	0.765 U	0.472 U	0.114 U	0.418 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	0.00692	<0.001	<0.001	<0.001	0.00108 J	--	<0.001	<0.001	0.002 J	8.8e-005 J	8.42e-005 J	<6.8e-005
Lithium	mg/L	0.0964	0.156	0.122	0.138	0.0966	0.134	0.167	0.237	0.203	0.0764	0.218	--	0.0964	0.145	0.194	0.323	0.0905	0.0828	0.419	0.337	--	0.0689	0.256	0.27	0.126	0.0808	0.0732
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	--	<0.00025	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	8.01e-005 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0141	0.0158	0.00632 J	--	0.0209	0.00918 J	0.00836 J	0.00439 J	0.0113	0.0119	0.00256 J	0.00286 J	--	0.01	0.0134	0.0146	0.0181	0.0133	0.0154
Thallium	mg/L	0.000205 J	<0.0002	<0.0002	<0.0002	<0.0002	0.000209 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	0.000226 J	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	GS-GSA-MW-4																			
	Date	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/17/2017	03/21/2017	04/17/2017	05/30/2017	08/24/2017	02/13/2018	06/11/2018	10/17/2018	10/14/2019	02/03/2020	02/04/2020	08/05/2020	03/03/2021	07/14/2021	1/27/2022	5/19/2022
Appendix III																					
Boron	mg/L	4.88	4.75	4.96	4.82	3.97	3.39	3.46	3.79	4.19	--	3.96	3.98	3.37	0.0433 J	2.74	2.51	2.42	4.78	5.99	4.53
Calcium	mg/L	102	98.4	88.7	104	102	94.7	97.9	93.9	105	--	105	342	93.5	265	116	94.7	100	130	177	166
Chloride	mg/L	112	115	115	117	99.3	79	85	99	110	--	81	--	59.1	1.72	43.2	41	40.3	102	103	83.5
Fluoride	mg/L	0.793	0.769	0.578	0.562	0.571	0.54	0.54	0.49	0.7	0.63	0.39	--	<0.05	0.37	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	3.83	3.82	3.81	3.81	3.78	3.76	3.76	3.76	3.7	3.73	3.8	3.81	3.91	6.14	3.83	3.86	3.76	3.74	3.73	3.6
Sulfate	mg/L	567	596	585	593	637	530	530	530	530	--	540	--	641	1920	571	519	609	752	1130	1030
TDS	mg/L	992	988	1030	1020	988	990	884	1060	1060	--	944	4250	967	3240	978	938	1040	1300	1840	1680
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	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	0.0012 J	<0.001	0.00128 J	0.00115 J	0.00116	0.00174	0.00274	0.00187
Barium	mg/L	0.0135	0.0127	0.0118	0.012	0.0119	0.0116	0.0112	0.0117	--	0.0121	0.0139	0.0119	0.0147	0.0103	0.0124	0.0142	0.0117	0.0115	0.0131	0.00987
Beryllium	mg/L	0.00576	0.00469	0.00459	0.00502	0.00488	0.00521	0.0058	0.00517	--	0.00544	0.00463	0.00369	0.00403	<0.0006	0.00415	0.00385	0.00406	0.00577	0.00821	0.00898
Cadmium	mg/L	0.00148	0.00147	0.00157	0.00154	0.00131	0.00134	0.00122	0.00167	--	0.00145	0.00171	<0.0003	0.0015	<0.0003	0.00143	0.00157	0.00162	0.00246	0.00333	0.00277
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	0.000567 J	0.000701 J	0.00105	0.000763 J
Cobalt	mg/L	0.151	0.143	0.154	0.155	0.16	0.158	0.159	0.159	--	0.19	0.166	<0.002	0.213	<0.002	0.217	0.235	0.24	0.296	0.447	0.394
Combined Radium 226 + 228	pCi/L	0.741	0.648	0.632	1.57	0.493	0.604 U	0.252 U	0.925	--	0.382	0.796	--	0.317 U	--	0.324 U	0.389 U	0.836 U	1.58	0.791 U	--
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000609	0.000792	0.00108	0.000989
Lithium	mg/L	0.291	0.287	0.298	0.294	0.27	0.258	0.274	0.285	--	0.274	0.266	0.0532	0.262	0.0556	0.29	0.273	0.313	0.487	0.647	0.582
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005	<0.000102
Selenium	mg/L	0.00234 J	0.00739 J	0.00266 J	0.00212 J	0.00263 J	0.00588 J	0.00579 J	0.00471 J	--	0.00498 J	0.00388 J	<0.002	<0.002	0.00212 J	<0.002	0.00298 J	0.00294	0.00563	0.00817	0.00563
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	0.000205 J	0.000178 J	8.68e-005 J	0.000238	0.000229

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 A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	MW-4																								
	Date	04/25/2016	06/20/2016	08/09/2016	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/18/2017	03/22/2017	04/18/2017	05/31/2017	08/23/2017	02/13/2018	05/23/2018	06/12/2018	11/19/2018	04/10/2019	05/14/2019	10/10/2019	10/16/2019	02/03/2020	04/06/2020	07/14/2020	02/22/2021	07/12/2021	1/25/2022
Appendix III																										
Boron	mg/L	0.0414 J	0.0434 J	0.0453 J	0.0451 J	0.0511 J	0.0507 J	0.0458 J	0.0445 J	0.0432 J	0.0409 J	0.0392 J	0.042 J	--	0.0433 J	0.0478 J	0.0526 J	0.0438 J	<0.0609	0.0487 J	0.0505 J	--	0.0428 J	0.0441 J	0.0397 J	0.0411 J	0.0408 J
Calcium	mg/L	261	295	318	319	293	311	320	417	292	302	284	297	--	296	355	289	356	254	302	356	--	222	259	271	242	264
Chloride	mg/L	1.53	1.85	1.95	2.07	2.02	2.07	2.39	1.9	1.5 J	1.6 J	2.1	2.3	--	2	1.7 J	<1.4	1.88	1.82	1.93	1.92	--	1.5	1.61	1.52	1.56	1.54
Fluoride	mg/L	0.372	0.361	0.326	0.329	0.287 J	0.194 J	0.192 J	0.223 J	0.32	0.32	0.31	0.38	0.38	0.38	0.39	0.36	0.384	0.335	0.304	0.302	--	0.368	0.33	0.357	0.35	0.364
pH_Field	SU	6.22	6.21	6.11	6.11	6.13	6.12	6.09	6.09	6.15	6.19	6.13	6.12	6.22	6.21	6.16	6.16	6.14	6.23	6.15	6.19	--	6.35	6.2	6.19	6.06	6.3
Sulfate	mg/L	2260	2500	2750	2770	3060	2650	2720	2650	2700	2400	2700	2700	--	2400	2600	2400	2090	2240	2690	3050	--	1810	1970	2040	1930	1930
TDS	mg/L	3300	3870	4140	4190	4190	4400	4230	4120	3980	3880	4210	3990	--	3740	4080	3920	3280	3130	4000	4060	--	2820	3310	3190	3000	3180
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	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0008	0.00097 J	<0.0008	<0.0008	<0.0008	--	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	0.000125 J	0.000116 J	6.97e-005 J
Barium	mg/L	0.0114	0.0103	0.0119	0.0118	0.0119	0.0104	0.0106	0.0101	0.0103	0.0107	0.0104	--	0.0111	0.0107	0.0108	0.0107	0.0107	0.00949 J	0.0116	0.0125	--	0.0115	0.0122	0.0111	0.0108	0.00991
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	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	8.96e-005 J	8.19e-005 J	8.59e-005 J
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.000203	0.000302 J	0.000208 J
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<6.8e-005	<6.8e-005	<6.8e-005
Combined Radium 226 + 228	pCi/L	0.434 U	0.287 U	0.516 U	0.266 U	0.59 U	0.164 U	0.296 U	0.0267 U	0.132 U	-0.0439 U	0.3 U	--	0.69	0.186 U	0.153 U	0.794	--	0.352 U	1.02 U	0.356 U	0.254 U	0.459 U	0.169 U	0 U	0.301 U	0.884 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	0.0528	0.0554	0.0452 J	0.0488 J	0.0476 J	0.049 J	0.0477 J	0.045 J	0.0493 J	0.0494 J	0.0501	--	0.0446 J	0.0513	0.0511	0.0467	0.0504	0.0485	0.054	0.052	--	0.0519	0.0543	0.0558	0.0533	0.0434
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	--	<0.00025	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	0.000131 J	0.000138 J	0.00011 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	--	0.00403 J	<0.002	<0.002	0.00436 J	<0.002	0.00201 J	<0.002	<0.002	--	0.00284 J	<0.002	0.00222	0.00155	0.00227
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix A.
Historical Groundwater Analytical Data
Gorgas Gypsum Pond
2016-Present

Analytes	Wells	GS-GSA-MW-8																		
	Date	08/24/2016	10/03/2016	10/26/2016	11/21/2016	01/17/2017	03/20/2017	04/18/2017	05/30/2017	08/24/2017	02/13/2018	06/12/2018	10/17/2018	04/10/2019	10/14/2019	02/04/2020	08/05/2020	03/01/2021	07/14/2021	44588
Appendix III																				
Boron	mg/L	0.0898 J	0.0821 J	0.0889 J	0.0788 J	0.0607 J	0.114	0.108	0.105	0.12	--	0.181	0.616	0.944	2.11	1.47	2.16	1.85	2.07	2.81
Calcium	mg/L	263	253	235	246	231	298	317	316	391	--	442	514	533	524	461	497	386	444	494
Chloride	mg/L	4.03	3.87	4.08	4.39	7.22	5.7	4.7	15	93	--	140	--	174	207	94.1	146	92.5	129	122
Fluoride	mg/L	0.165 J	0.114 J	0.056 J	0.059 J	0.07 J	0.18	0.17	0.16	0.18	0.15	0.15	--	0.156	0.118	0.132	0.119	0.106	0.221	0.179
pH_Field	SU	6.78	6.71	6.65	6.7	6.25	7.04	6.99	6.98	6.89	6.85	6.83	6.81	6.71	6.88	6.85	6.76	6.48	6.88	6.85
Sulfate	mg/L	1250	1270	1240	1210	1150	1400	1300	1500	1800	--	1800	--	2150	2090	1570	1880	1450	1700	2000
TDS	mg/L	2280	2370	2350	2530	2380	2630	2700	2980	3390	--	3510	3550	3580	3730	3190	3610	2870	3150	3290
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	0.00102 J	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	0.00119 J	0.00114 J	0.0011 J	<0.001	0.00103 J	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000633	0.000238	0.000187 J
Barium	mg/L	0.0536	0.0681	0.0562	0.0604	0.0402	0.0305	0.0276	0.0272	--	0.0249	0.0234	0.0236	0.02	0.0215	0.0209	0.0216	0.0194	0.0232	0.0238
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000423 J	0.000302 J	0.000456 J
Cobalt	mg/L	0.0201	0.0167	0.0253	0.0233	0.0708	0.00277 J	<0.002	<0.002	--	0.00492 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00546	0.000262	0.000187 J
Combined Radium 226 + 228	pCi/L	0.558 U	0.565	0.555 U	0.987	0.476 U	0.633 U	0.248 U	0.412 U	--	1.08	0.446 U	--	--	0.225 U	0.336 U	-0.115 U	0.902 U	1.23 U	0.28 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000145 J	<6.8e-005	0.00015 J
Lithium	mg/L	0.0683	0.0661	0.0681	0.0682	0.0516	0.135	0.139	0.141	--	0.163	0.166	0.188	0.195	0.209	0.188	0.206	0.149	0.213	0.179
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	0.0031 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	0.00277	0.000151 J	0.000111 J
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:
1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value
4. "<MDL" or "U" indicates non-detect

Appendix B

Appendix B
Historical Groundwater Elevations Summary

Well Name	Top of Casing Elevation	Groundwater Elevation (ft. MSL)										
		8/24/2016	10/3/2016	10/26/2016	11/21/2016	1/17/2017	3/20/2017	4/17/2017	5/30/2017	8/23/2017	2/13/2018	6/11/2018
MW-1[3]	502.38	410.56	410.44	410.32	410.23	410.20	410.80	411.07	410.93	411.19	411.02	411.41
MW-2[3]	502.17	416.47	416.26	416.13	416.03	416.67	417.29	417.39	416.99	417.07	419.34	417.08
MW-3[3]	525.90	415.08	414.82	414.64	414.43	415.27	416.07	417.21	415.63	415.73	418.49	415.77
MW-4[3]	517.89	399.83	399.35	399.09	398.79	399.77	401.28	401.59	400.94	401.03	401.93	401.27
GS-GSA-MW-3	442.63	332.11	331.71	331.53	331.33	331.02	333.43	334.12	334.72	336.19	332.79	336.36
GS-GSA-MW-4	442.10	350.00	349.10	348.71	348.26	349.61	351.50	352.75	351.17	351.02	353.06	351.52
GS-GSA-MW-8	404.38	318.89	317.35	316.33	315.43	315.89	320.12	322.22	321.64	323.71	320.01	324.40
GS-GSA-MW-3V	442.68	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-4V	442.18	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-9H	335.83	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-10H	339.52	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-11H	263.02	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-8V	404.43	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-12H	399.73	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-13H	266.46	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-1	442.96	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-2	442.84	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-2A	491.52	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-9V	336.22	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-12V	379.50	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-14H	403.66	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-15H	428.16	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-MW-23VA	403.60	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-16	436.40	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-17	475.94	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-18	489.93	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-19	463.50	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-20	460.34	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-22	479.46	--	--	--	--	--	--	--	--	--	--	--
GS-GSA-PZ-21	460.94	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. Upgradient monitoring well located at the CCR Landfill

Appendix B
Historical Groundwater Elevations Summary

Well Name	Top of Casing Elevation	Groundwater Elevation (ft. MSL)										
		10/17/2018	3/4/2019	3/13/2019	4/10/2019	10/14/2019	11/26/2019	2/3/2020	8/3/2020	2/22/2021	7/12/2021	1/24/2022
MW-1[3]	502.38	410.78	--	412.24	412.08	410.85	--	411.94	412.32	411.72	411.67	411.62
MW-2[3]	502.17	416.44	--	417.75	421.20	416.67	--	417.57	417.15	418.55	417.80	418.45
MW-3[3]	525.90	414.92	--	418.31	417.41	415.14	--	416.62	415.49	419.94	421.54	418.99
MW-4[3]	517.89	399.56	--	401.94	402.12	399.59	--	401.68	400.63	402.38	401.56	401.78
GS-GSA-MW-3	442.63	332.37	--	341.46	341.33	332.37	--	339.32	335.10	334.59	339.17	334.91
GS-GSA-MW-4	442.10	349.56	--	353.06	353.00	349.08	--	352.42	350.66	354.32	352.12	353.72
GS-GSA-MW-8	404.38	319.03	--	334.46	330.27	319.20	--	329.85	323.91	325.87	328.28	326.90
GS-GSA-MW-3V	442.68	--	327.13	326.34	--	313.29	--	321.66	316.37	318.85	319.46	318.90
GS-GSA-MW-4V	442.18	--	333.31	332.35	--	322.28	--	328.85	323.88	328.55	327.27	328.76
GS-GSA-MW-9H	335.83	--	294.33	293.64	--	286.47	--	291.69	288.01	291.61	290.68	291.76
GS-GSA-MW-10H	339.52	--	--	321.80	--	--	--	319.09	312.41	319.60	318.68	320.11
GS-GSA-MW-11H	263.02	--	257.01	256.30	--	255.09	--	256.29	256.21	256.33	256.39	256.45
GS-GSA-MW-8V	404.43	--	--	--	--	--	310.82	319.53	313.99	318.10	318.06	317.98
GS-GSA-MW-12H	399.73	--	--	--	--	--	339.57	341.15	337.17	341.27	340.16	341.25
GS-GSA-MW-13H	266.46	--	--	--	--	--	257.06	257.03	256.50	257.65	256.48	257.53
GS-GSA-MW-1	442.96	--	--	--	--	--	--	347.96	347.74	347.81	347.88	347.84
GS-GSA-MW-2	442.84	--	--	--	--	--	--	340.10	335.87	334.94	339.92	335.15
GS-GSA-PZ-2A	491.52	--	--	--	--	--	--	372.06	371.55	371.55	371.82	371.56
GS-GSA-MW-9V	336.22	--	--	--	--	--	--	--	289.16	291.53	291.30	291.44
GS-GSA-MW-12V	379.50	--	--	--	--	--	--	--	294.01	318.04	317.98	317.91
GS-GSA-MW-14H	403.66	--	--	--	--	--	--	--	384.51	385.34	384.82	385.35
GS-GSA-MW-15H	428.16	--	--	--	--	--	--	--	401.88	404.14	402.77	404.00
GS-GSA-MW-23VA	403.60	--	--	--	--	--	--	--	--	240.62	253.93	269.83
GS-GSA-PZ-16	436.40	--	--	--	--	--	--	--	409.21	421.76	412.02	421.20
GS-GSA-PZ-17	475.94	--	--	--	--	--	--	--	429.97	430.61	429.91	430.40
GS-GSA-PZ-18	489.93	--	--	--	--	--	--	--	426.03	430.00	428.24	429.44
GS-GSA-PZ-19	463.50	--	--	--	--	--	--	--	339.96	341.27	341.82	343.53
GS-GSA-PZ-20	460.34	--	--	--	--	--	--	--	344.11	344.22	344.26	344.20
GS-GSA-PZ-22	479.46	--	--	--	--	--	--	--	424.21	428.41	427.17	428.39
GS-GSA-PZ-21	460.94	--	--	--	--	--	--	--	378.58	377.13	377.35	376.89

Notes:
1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. Upgradient monitoring well located at the CC

Appendix C

Gorgas Gypsum Pond
2022 Semi-Annual Event #1
Field Parameter Readings

# PARAMETER	SITE_NAME	WELL_ID	OPERATOR_NAME	END_DATE	READING_DATETIME	VALUE	UNIT	DESCRIPTION
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:40	4467.2	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:40	0.33	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:40	107.59	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:40	50.32	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:40	6.42	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:40	19.38	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:40	22.7	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:45	4486.03	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:45	0.29	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:45	107.59	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:45	33.07	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:45	6.49	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:45	19.32	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:45	15.8	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:50	4470.72	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:50	0.26	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:50	107.59	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:50	23.89	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:50	6.48	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:50	19.38	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:50	10.64	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:55	4473.74	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:55	0.25	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:55	107.59	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:55	17.44	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:55	6.5	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:55	19.51	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 14:55	10.52	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:00	4501.96	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:00	0.26	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:00	107.59	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:00	12.99	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:00	6.51	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:00	19.1	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:00	9.47	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:05	4478	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:05	0.25	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:05	107.59	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:05	9.36	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:05	6.52	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:05	19.18	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3	Dallas Gentry	1/26/2022 14:35	1/26/2022 15:05	9.2	NTU	Turbidity

Gorgas Gypsum Pond
2022 Semi-Annual Event #1
Field Parameter Readings

COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:22	3965.98	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:22	4.88	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:22	124.24	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:22	-85.24	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:22	7.2	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:22	15.56	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:22	3.17	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:27	4079.98	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:27	1.88	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:27	124.51	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:27	-73.68	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:27	6.86	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:27	15.97	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:27	7.26	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:32	4021.12	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:32	1.45	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:32	124.61	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:32	-47.21	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:32	6.71	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:32	16.03	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:32	5.83	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:37	3949.83	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:37	1.25	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:37	124.78	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:37	-32.79	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:37	6.64	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:37	16.11	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:37	3.66	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:42	3901.02	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:42	1.22	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:42	124.9	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:42	-24.81	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:42	6.59	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:42	15.74	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:42	4.13	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:47	3876.99	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:47	1.21	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:47	124.97	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:47	-14.84	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:47	6.61	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:47	15.02	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-3V	Dallas Gentry	1/26/2022 11:17	1/26/2022 11:47	2.45	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:27	1598.86	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:27	0.49	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:27	114.97	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:27	-8.53	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:27	6.05	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:27	17.92	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:27	104.7	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:32	1594.91	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:32	0.39	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:32	115.15	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:32	-8.34	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:32	6.1	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:32	18.05	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:32	63.4	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:37	1607.91	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:37	0.38	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:37	115.23	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:37	-8.81	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:37	6.1	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:37	18.12	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:37	71.2	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:42	1596.82	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:42	0.34	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:42	115.27	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:42	-8.04	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:42	6.1	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:42	18.47	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:42	47.5	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:47	1609	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:47	0.33	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:47	115.31	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:47	-4.38	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:47	6.06	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:47	18.35	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:47	31.9	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:52	1618.45	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:52	0.34	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:52	115.34	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:52	-3.24	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:52	6.05	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:52	17.93	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:52	23.6	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:57	1611.05	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:57	0.32	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:57	115.36	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:57	-2.78	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:57	6.09	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:57	18.22	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 8:57	19.9	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:02	1611.49	uS/cm	Conductivity

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DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:02	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:02	115.38	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:02	-3.03	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:02	6.11	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:02	18.23	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:02	20.9	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:07	1620.98	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:07	0.33	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:07	115.4	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:07	-2.47	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:07	6.13	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:07	18.16	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:07	14	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:12	1611.98	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:12	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:12	115.41	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:12	-2.94	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:12	6.13	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:12	18.35	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:12	12.5	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:17	1612.65	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:17	0.3	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:17	115.41	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:17	-2.49	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:17	6.16	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:17	18.3	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:17	15.7	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:22	1622.5	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:22	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:22	115.42	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:22	-1.48	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:22	6.14	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:22	18.26	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:22	13.4	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:27	1613.22	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:27	0.3	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:27	115.42	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:27	-1.06	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:27	6.13	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:27	18.43	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:27	12.25	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:32	1611.38	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:32	0.29	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:32	115.42	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:32	-0.1	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:32	6.14	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:32	18.38	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:32	10.92	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:37	1619.95	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:37	0.3	mg/L	DO

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DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:37	115.42	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:37	0.56	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:37	6.17	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:37	18.5	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4V	Dallas Gentry	1/27/2022 8:22	1/27/2022 9:37	9.53	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:31	1756.47	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:31	0.86	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:31	97.18	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:31	-165.63	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:31	8.24	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:31	18.93	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:31	1.02	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:36	1749.39	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:36	0.86	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:36	97.29	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:36	-177.04	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:36	8.23	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:36	18.94	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:36	1.12	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:41	1736.14	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:41	0.82	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:41	97.41	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:41	-184.64	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:41	8.22	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:41	18.84	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:41	0.9	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:46	1722.53	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:46	0.8	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:46	97.5	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:46	-190.65	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:46	8.18	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:46	19.12	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8V	Dallas Gentry	1/26/2022 13:26	1/26/2022 13:46	1.06	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:25	1580.07	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:25	0.15	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:25	59.13	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:25	240.61	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:25	4.17	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:25	19.28	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:25	16.5	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:30	1209.43	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:30	0.17	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:30	59.13	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:30	250.5	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:30	4.22	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:30	19.27	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:30	47.7	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:35	1563.98	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:35	0.16	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:35	59.13	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:35	274.37	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:35	4.18	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:35	19.21	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:35	17.9	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:40	1550.61	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:40	0.17	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:40	59.13	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:40	304.21	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:40	4.15	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:40	19.23	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:40	9.02	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:45	1495.64	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:45	0.17	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:45	59.13	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:45	326.12	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:45	4.11	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:45	19.14	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12H	Dallas Gentry	1/25/2022 15:20	1/25/2022 15:45	8	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:26	840.79	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:26	0.64	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:26	46.41	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:26	164.84	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:26	4.41	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:26	18.4	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:26	2.18	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:31	767.71	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:31	0.71	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:31	46.48	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:31	173.93	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:31	4.5	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:31	18.47	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:31	1.02	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:36	742.8	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:36	0.54	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:36	46.51	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:36	150.78	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:36	4.61	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:36	18.33	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:36	1.08	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:41	756.96	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:41	0.34	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:41	46.53	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:41	134.92	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:41	4.63	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:41	18.64	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-17	Dallas Gentry	1/27/2022 10:21	1/27/2022 10:41	0.97	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 13:57	1759.71	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 13:57	0.16	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 13:57	123.41	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 13:57	12.87	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 13:57	6.77	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 13:57	17.29	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 13:57	1.98	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:02	1563.12	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:02	0.15	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:02	124.44	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:02	11.81	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:02	6.73	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:02	17.41	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:02	1.15	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:07	1445.28	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:07	0.17	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:07	124.91	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:07	8.77	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:07	6.69	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:07	17.5	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:07	1.45	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:12	1366.11	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:12	0.18	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:12	125.38	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:12	5.9	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:12	6.68	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:12	17.45	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:12	1.28	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:17	1321.23	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:17	0.18	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:17	125.73	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:17	3.72	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:17	6.66	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:17	17.32	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:17	1.07	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:22	1301.48	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:22	0.18	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:22	126.09	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:22	2.23	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:22	6.67	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:22	17.61	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:22	0.87	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:27	1301.96	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:27	0.19	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:27	126.36	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:27	1.25	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:27	6.66	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:27	17.22	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:27	1.12	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:32	1291.45	uS/cm	Conductivity

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DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:32	0.19	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:32	126.54	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:32	0.21	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:32	6.69	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:32	17.43	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:32	0.66	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:37	1284.75	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:37	0.19	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:37	126.7	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:37	-0.48	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:37	6.68	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:37	17.43	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:37	1.65	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:42	1292.6	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:42	0.19	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:42	126.8	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:42	-0.85	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:42	6.68	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:42	17.58	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-19	Dallas Gentry	1/25/2022 13:52	1/25/2022 14:42	1.05	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:37	1170.03	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:37	0.37	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:37	116.6	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:37	23.87	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:37	6.29	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:37	17.49	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:37	9.85	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:42	1202.55	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:42	0.33	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:42	116.6	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:42	23.84	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:42	6.28	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:42	17.4	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:42	7.73	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:47	1192.62	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:47	0.3	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:47	116.6	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:47	22.75	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:47	6.31	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:47	17.51	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:47	4.35	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:52	1181.7	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:52	0.28	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:52	116.6	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:52	20.64	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:52	6.33	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:52	17.62	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-20	Dallas Gentry	1/25/2022 12:32	1/25/2022 12:52	4.6	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:00	802.34	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:00	0.79	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:00	85.85	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:00	-79.53	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:00	6.84	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:00	15.74	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:00	1.73	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:05	801.08	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:05	0.53	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:05	86.28	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:05	-76.27	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:05	6.88	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:05	15.71	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:05	1.66	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:10	800.51	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:10	0.38	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:10	86.83	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:10	-72.89	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:10	6.92	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:10	16.08	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:10	1.27	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:15	801.03	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:15	0.33	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:15	87.23	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:15	-67.72	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:15	6.95	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:15	16.46	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:15	1.36	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:20	799.33	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:20	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:20	87.72	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:20	-65.11	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:20	6.94	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:20	16.07	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:20	0.98	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:25	799.42	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:25	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:25	88.05	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:25	-64.76	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:25	6.96	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:25	16.11	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:25	0.78	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:30	798.26	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:30	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:30	88.21	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:30	-61.72	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:30	6.95	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:30	15.95	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:30	0.77	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:35	797.36	uS/cm	Conductivity

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DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:35	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:35	88.32	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:35	-58.36	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:35	6.94	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:35	16.15	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-21	Dallas Gentry	1/25/2022 9:55	1/25/2022 10:35	0.89	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:29	948.74	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:29	0.59	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:29	51.82	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:29	-69.75	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:29	6.42	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:29	17.66	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:29	13	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:34	935.57	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:34	0.43	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:34	51.96	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:34	-51.65	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:34	6.17	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:34	17.58	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:34	13.3	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:39	917.91	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:39	0.37	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:39	52.09	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:39	-34.42	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:39	5.99	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:39	17.5	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:39	11.3	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:44	919.7	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:44	0.34	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:44	52.09	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:44	-30.25	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:44	5.99	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:44	18.29	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:44	10.45	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:49	921.21	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:49	0.3	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:49	52.09	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:49	-29.31	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:49	5.99	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:49	17.45	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-22	Dallas Gentry	1/25/2022 11:24	1/25/2022 11:49	7.59	NTU	Turbidity

Gorgas Gypsum Pond
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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:36	1490.74	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:36	0.28	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:36	8.16	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:36	96.49	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:36	5.77	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:36	19.46	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:36	23.6	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:41	1480.79	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:41	0.36	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:41	8.22	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:41	97.88	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:41	5.83	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:41	18.9	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:41	26.4	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:46	1475.22	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:46	0.68	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:46	8.3	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:46	96.28	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:46	5.86	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:46	18.22	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:46	23.1	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:51	1475.49	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:51	0.26	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:51	8.38	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:51	95.57	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:51	5.86	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:51	19.73	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:51	14.5	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:56	1470.26	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:56	0.25	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:56	8.51	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:56	92.64	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:56	5.91	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:56	19.83	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 9:56	11.73	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:01	1458.94	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:01	0.27	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:01	8.6	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:01	90.97	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:01	5.94	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:01	19.87	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:01	11.14	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:06	1445.07	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:06	0.28	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:06	8.68	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:06	88.54	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:06	5.95	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:06	19.79	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-11H	TJ Daugherty	1/26/2022 9:31	1/26/2022 10:06	8.2	NTU	Turbidity

Gorgas Gypsum Pond
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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:54	1452.34	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:54	0.15	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:54	9.52	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:54	-38.61	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:54	6.16	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:54	20.29	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:54	6.79	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:59	1466.11	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:59	0.14	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:59	9.56	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:59	-36.34	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:59	6.15	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:59	20.27	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 10:59	5.29	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:04	1491.78	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:04	0.14	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:04	9.56	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:04	-34.21	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:04	6.13	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:04	20.29	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:04	4.08	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:09	1516.88	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:09	0.14	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:09	9.56	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:09	-31.12	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:09	6.11	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:09	20.41	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:09	3.16	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:14	1543.63	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:14	0.14	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:14	9.56	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:14	-26.49	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:14	6.08	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:14	20.26	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-13H	TJ Daugherty	1/26/2022 10:49	1/26/2022 11:14	2.51	NTU	Turbidity

Gorgas Gypsum Pond
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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:35	3222.93	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:35	0.14	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:35	54.12	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:35	-84.46	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:35	6.98	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:35	21.25	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:35	0.82	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:40	3229.78	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:40	0.13	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:40	57.26	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:40	-87.26	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:40	6.98	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:40	21.2	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:40	0.93	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:45	3236.17	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:45	0.13	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:45	61.44	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:45	-89.24	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:45	6.98	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:45	21.27	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:45	0.77	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:50	3234.54	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:50	0.14	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:50	64.46	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:50	-90.61	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:50	6.97	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:50	21	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:50	1.03	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:55	3203.52	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:55	0.45	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:55	64.73	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:55	-87.82	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:55	6.98	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:55	19.37	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 12:55	0.86	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:00	3198.4	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:00	0.63	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:00	64.73	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:00	-81.03	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:00	6.95	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:00	18.54	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:00	0.64	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:05	3194.65	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:05	0.76	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:05	64.73	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:05	-67.98	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:05	6.9	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:05	18.38	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:05	0.51	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:10	3207.82	uS/cm	Conductivity

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DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:10	0.82	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:10	64.73	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:10	-61.36	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:10	6.89	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:10	18.56	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:10	0.44	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:15	3210.84	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:15	0.84	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:15	64.73	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:15	-58.64	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:15	6.89	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:15	19	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9V	TJ Daugherty	1/26/2022 12:30	1/26/2022 13:15	0.42	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 14:57	2539.76	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 14:57	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 14:57	46.86	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 14:57	178.6	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 14:57	5.15	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 14:57	21.14	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 14:57	5.72	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:02	2561.27	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:02	0.26	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:02	47.24	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:02	166.87	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:02	5.23	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:02	21.02	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:02	4.4	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:07	2574.42	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:07	0.23	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:07	47.52	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:07	158.92	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:07	5.28	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:07	20.91	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:07	3.6	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:12	2578.89	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:12	0.22	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:12	47.71	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:12	153.34	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:12	5.31	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:12	20.97	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:12	3.33	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:17	2589.81	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:17	0.2	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:17	47.88	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:17	149.58	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:17	5.33	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:17	21.1	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:17	1.93	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:22	2589.92	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:22	0.2	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:22	47.92	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:22	146.63	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:22	5.35	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:22	20.94	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-9H	TJ Daugherty	1/26/2022 14:52	1/26/2022 15:22	1.99	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:36	4563.34	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:36	0.21	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:36	62.44	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:36	-74.21	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:36	6.35	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:36	20.16	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:36	0.88	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:41	4195.44	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:41	0.18	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:41	62.53	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:41	-57.74	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:41	6.23	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:41	20.26	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:41	0.85	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:46	4041.36	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:46	0.18	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:46	62.58	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:46	-48.19	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:46	6.18	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:46	20.25	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:46	1.02	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:51	3930.61	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:51	0.17	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:51	62.66	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:51	-42.86	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:51	6.16	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:51	20.28	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:51	0.55	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:56	3900.53	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:56	0.17	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:56	62.68	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:56	-42.11	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:56	6.19	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:56	20.23	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-12V	TJ Daugherty	1/27/2022 8:31	1/27/2022 8:56	0.58	NTU	Turbidity

Gorgas Gypsum Pond
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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:41	3460.94	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:41	0.53	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:41	78.37	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:41	-85.26	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:41	6.83	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:41	20.8	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:41	2.03	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:46	3464.95	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:46	0.35	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:46	78.49	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:46	-86.77	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:46	6.86	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:46	20.9	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:46	1.57	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:51	3465.34	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:51	0.31	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:51	78.53	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:51	-85.01	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:51	6.86	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:51	20.81	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:51	2.54	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:56	3489.16	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:56	0.29	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:56	78.56	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:56	-83.27	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:56	6.85	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:56	21.13	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-8	TJ Daugherty	1/27/2022 9:36	1/27/2022 9:56	2.64	NTU	Turbidity

Gorgas Gypsum Pond
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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:35	2091.44	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:35	0.6	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:35	89	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:35	310.61	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:35	3.73	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:35	19.39	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:35	2.22	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:40	2074.29	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:40	0.5	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:40	89	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:40	306.85	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:40	3.72	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:40	19.6	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:40	2.17	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:45	2061.81	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:45	0.46	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:45	89	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:45	305.64	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:45	3.72	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:45	19.66	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:45	1.84	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:50	2062.07	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:50	0.43	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:50	89	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:50	304.11	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:50	3.73	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:50	19.63	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-4	Anthony Goggins	1/27/2022 10:30	1/27/2022 10:50	1.54	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:33	1295.13	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:33	0.22	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:33	18.61	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:33	297.69	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:33	3.95	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:33	18.68	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:33	6.8	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:38	1295.03	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:38	0.21	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:38	18.61	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:38	305.26	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:38	4.02	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:38	18.68	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:38	6.16	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:43	1292.17	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:43	0.24	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:43	18.61	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:43	300.94	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:43	4.13	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:43	18.87	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:43	5.01	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:48	1290.46	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:48	0.22	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:48	18.61	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:48	303.51	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:48	4.1	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:48	18.9	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-MW-14H	Anthony Goggins	1/27/2022 9:28	1/27/2022 9:48	4.14	NTU	Turbidity

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COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:28	970.48	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:28	0.57	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:28	62.6	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:28	157.07	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:28	3.93	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:28	15.91	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:28	0.9	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:33	959.47	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:33	0.48	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:33	62.78	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:33	135.86	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:33	3.88	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:33	16.05	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:33	0.9	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:38	956.98	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:38	0.44	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:38	62.98	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:38	151.43	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:38	3.85	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:38	16.33	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:38	0.92	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:43	959.41	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:43	0.39	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:43	63.1	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:43	171.61	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:43	3.87	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:43	16.15	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:43	0.82	NTU	Turbidity
COND	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:48	958.69	uS/cm	Conductivity
DO	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:48	0.37	mg/L	DO
DTW	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:48	63.23	ft	Depth to Water Detail
ORP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:48	182.99	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:48	3.89	SU	pH
TEMP	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:48	16.16	C	Temperature
TURB	APCO_Gorgas_GypsumStore	GS-GSA-PZ-18	Anthony Goggins	1/27/2022 8:23	1/27/2022 8:48	0.73	NTU	Turbidity

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COND	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:48	2243.47	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:48	1.57	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:48	93.17	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:48	289.32	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:48	5.06	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:48	20.38	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:48	0.51	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:53	2255.48	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:53	1.2	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:53	93.31	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:53	309.45	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:53	5.09	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:53	20.39	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:53	0.44	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:58	2253.35	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:58	1.02	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:58	93.31	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:58	318.36	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:58	5.1	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:58	20.35	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 9:58	0.51	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:03	2199.78	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:03	0.94	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:03	93.31	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:03	344.01	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:03	5.1	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:03	20.44	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:03	0.79	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:08	2248.18	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:08	0.96	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:08	93.31	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:08	342.61	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:08	5.11	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:08	20.4	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-1	TJ Daugherty	1/25/2022 9:43	1/25/2022 10:08	1.07	NTU	Turbidity

Gorgas Gypsum Pond
2022 Semi-Annual Event #1
Field Parameter Readings

COND	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:13	1775.11	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:13	0.84	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:13	83.86	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:13	76.54	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:13	6.18	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:13	20.01	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:13	4.6	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:18	1781.49	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:18	0.77	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:18	83.86	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:18	77.05	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:18	6.2	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:18	20.03	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:18	2.75	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:23	1779.37	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:23	0.85	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:23	83.86	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:23	76.59	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:23	6.21	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:23	20.02	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:23	2.74	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:28	1777.69	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:28	0.9	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:28	83.86	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:28	76.06	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:28	6.22	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:28	20.03	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-2	TJ Daugherty	1/25/2022 11:08	1/25/2022 11:28	1.13	NTU	Turbidity

Gorgas Gypsum Pond
2022 Semi-Annual Event #1
Field Parameter Readings

COND	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:38	3088.14	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:38	6.61	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:38	107.28	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:38	242.63	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:38	5.85	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:38	19.63	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:38	1.5	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:43	3205.21	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:43	6.29	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:43	107.3	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:43	250.3	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:43	5.88	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:43	19.76	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:43	1.97	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:48	3148.48	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:48	6.18	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:48	107.31	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:48	257.13	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:48	5.89	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:48	20	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:48	1.51	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:53	3139.08	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:53	6.2	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:53	107.34	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:53	262.48	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:53	5.9	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:53	20.01	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-3	TJ Daugherty	1/25/2022 12:33	1/25/2022 12:53	2.05	NTU	Turbidity

Gorgas Gypsum Pond
2022 Semi-Annual Event #1
Field Parameter Readings

COND	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:10	2952.85	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:10	2.06	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:10	116.14	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:10	215.69	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:10	6.27	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:10	21.38	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:10	4.39	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:15	2893.5	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:15	2.29	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:15	116.14	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:15	226.1	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:15	6.28	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:15	21.33	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:15	1.63	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:20	2868.73	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:20	2.57	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:20	116.14	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:20	232.18	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:20	6.29	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:20	21.29	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:20	1.28	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:25	2857.11	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:25	2.75	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:25	116.14	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:25	236.53	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:25	6.3	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:25	21.35	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:25	1.13	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:30	2846.67	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:30	2.8	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:30	116.14	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:30	239.4	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:30	6.3	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:30	21.4	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:30	0.84	NTU	Turbidity
COND	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:35	2843.39	uS/cm	Conductivity
DO	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:35	2.8	mg/L	DO
DTW	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:35	116.14	ft	Depth to Water Detail
ORP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:35	241.8	mv	Oxidation Reduction Potention
PH	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:35	6.3	SU	pH
TEMP	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:35	21.37	C	Temperature
TURB	APCO_Gorgas_Pooled_Upgradient	MW-4	TJ Daugherty	1/25/2022 14:05	1/25/2022 14:35	1.1	NTU	Turbidity

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

Analytical Report

Alabama Power

Sample Group : WMWGORPU_1347

Project/Site : Gorgas Pooled Upgradient
Parrish, AL 35580

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

Attention : Dustin Brooks & Greg Dyer

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

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

Alabama Power

February 28, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2022.
All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2022

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

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2022.02.28 13:48:03 -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: 2022.03.02 14:46:25 -06'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

Alabama Power Lab & Field SERVICES

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

Case Narrative

Alabama Power

Total Metals ICP

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	716882	WMWGORPU_1347
BC01606	716882	WMWGORPU_1347
BC01607	716882	WMWGORPU_1347
BC01608	716882	WMWGORPU_1347
BC01609	716882	WMWGORPU_1347
BC01610	716882	WMWGORPU_1347
BC01611	716882	WMWGORPU_1347

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01605	Calcium, Magnesium	20.3
BC01606	Calcium, Magnesium	20.3
BC01607	Calcium, Magnesium	20.3
BC01608	Calcium, Magnesium, Sodium	20.3
BC01610	Calcium, Magnesium	20.3

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

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

Case Narrative

Alabama Power

Dissolved Metals ICP

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	716857	WMWGORPU_1347
BC01606	716857	WMWGORPU_1347
BC01607	716857	WMWGORPU_1347
BC01608	716857	WMWGORPU_1347
BC01610	716857	WMWGORPU_1347

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
    - BC01610 Calcium and Magnesium MS/MSD spike levels were <30% of the sample concentrations.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01605	Calcium, Magnesium	20.3
BC01606	Calcium, Magnesium	20.3
BC01607	Calcium, Magnesium	20.3
BC01608	Calcium, Magnesium, Sodium	20.3
BC01610	Calcium, Magnesium	20.3

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

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

Case Narrative

Alabama Power

Total Metals ICPMS

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	717096	WMWGORPU_1347
BC01606	717096	WMWGORPU_1347
BC01607	717096	WMWGORPU_1347
BC01608	717096	WMWGORPU_1347
BC01609	717096	WMWGORPU_1347
BC01610	717096	WMWGORPU_1347
BC01611	717096	WMWGORPU_1347

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01605	Manganese	10.15
BC01606	Manganese	10.15
BC01607	Manganese	10.15

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

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

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	717031	WMWGORPU_1347
BC01606	717031	WMWGORPU_1347
BC01607	717031	WMWGORPU_1347
BC01608	717031	WMWGORPU_1347
BC01610	717031	WMWGORPU_1347

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01605	Manganese	10.15
BC01606	Manganese	10.15
BC01607	Manganese	10.15

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

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

Case Narrative

Alabama Power

Mercury

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	716790	WMWGORPU_1347
BC01606	716790	WMWGORPU_1347
BC01607	716790	WMWGORPU_1347
BC01608	716790	WMWGORPU_1347
BC01609	716790	WMWGORPU_1347
BC01610	716790	WMWGORPU_1347
BC01611	716790	WMWGORPU_1347

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

7. All samples were analyzed without a dilution.

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

Case Narrative

Alabama Power

TDS

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	716903	WMWGORPU_1347
BC01606	716903	WMWGORPU_1347
BC01607	716903	WMWGORPU_1347
BC01608	716903	WMWGORPU_1347
BC01609	716903	WMWGORPU_1347
BC01610	716903	WMWGORPU_1347
BC01611	716903	WMWGORPU_1347

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was ≤10%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BC01609
  - BC01611

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

Case Narrative

Alabama Power

Anions

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	716855, 716997, & 717660	WMWGORPU_1347
BC01606	716855, 716997, & 717660	WMWGORPU_1347
BC01607	716855, 716997, & 717660	WMWGORPU_1347
BC01608	716855, 716997, & 717660	WMWGORPU_1347
BC01609	716855, 716997, & 717660	WMWGORPU_1347
BC01610	716855, 716997, & 717660	WMWGORPU_1347
BC01611	716855, 716997, & 717660	WMWGORPU_1347

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01605	Sulfate	40
BC01606	Sulfate	40
BC01607	Sulfate	40
BC01608	Sulfate	80
BC01610	Sulfate	80

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

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

Case Narrative

Alkalinity

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	717127 & 717128	WMWGORPU_1347
BC01606	717127 & 717128	WMWGORPU_1347
BC01607	717127 & 717128	WMWGORPU_1347
BC01608	717127 & 717128	WMWGORPU_1347
BC01610	717127 & 717128	WMWGORPU_1347

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.

- The QC point used for batches 717127 & 717128 was from another project.

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

Case Narrative

Alabama Power

Nitrate-Nitrite

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	717152	WMWGORPU_1347
BC01606	717152	WMWGORPU_1347
BC01607	717152	WMWGORPU_1347
BC01608	717152	WMWGORPU_1347
BC01609	717152	WMWGORPU_1347
BC01610	717152	WMWGORPU_1347
BC01611	717152	WMWGORPU_1347

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

General Quality Control Procedures:

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

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
    - A sample duplicate was run and criteria for precision was met.
    - A matrix spike was run and criteria for accuracy was met.

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

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

Case Narrative

Alabama Power

Total Organic Carbon by High Temperature Combustion

Gorgas Pooled Upgradient

WMWGORPU_1347

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.

Sample ID	Batch ID	Project ID
BC01605	717527	WMWGORPU_1347
BC01606	717527	WMWGORPU_1347
BC01607	717527	WMWGORPU_1347
BC01608	717527	WMWGORPU_1347
BC01609	717527	WMWGORPU_1347
BC01610	717527	WMWGORPU_1347
BC01611	717527	WMWGORPU_1347

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

Revision 5

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-1

Location Code: WMWGORPU
Collected: 1/25/22 10:15
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01605

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:37		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 11:18		20.3	150	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 10:37		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	1/27/22 10:03	1/28/22 10:37		1.015	0.0239	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:18		20.3	281	mg/L	0.4263	8.12	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:37		1	24.8	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:37		1.015	11.6	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 10:37		1.015	33.8	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:22		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	1/27/22 09:52	1/28/22 09:57		20.3	159	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:22		1.015	0.00966	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:22		1.015	0.0237	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 09:57		20.3	294	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:22		1	25.3	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:22		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 09:22		1.015	33.2	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:16		1.015	0.123	mg/L	0.004060	0.01015	
* Arsenic, Total	1/27/22 09:55	1/27/22 15:16		1.015	0.000248	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 15:16		1.015	0.00980	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 15:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:16		1.015	0.00196	mg/L	0.000068	0.000203	
* Chromium, Total	1/27/22 09:55	1/27/22 15:16		1.015	0.000434	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 15:16		1.015	0.0654	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 15:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	2/1/22 12:25		10.15	10.4	mg/L	0.000680	0.00203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 15:16		1.015	6.85	mg/L	0.169505	0.5075	

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

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

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-1

Location Code: WMWGORPU
Collected: 1/25/22 10:15
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01605

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 15:16		1.015	0.00216	mg/L	0.000508	0.001015	
* Thallium, Total	1/27/22 09:55	1/27/22 15:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	0.121	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	0.000274	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	0.00926	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	0.00221	mg/L	0.000068	0.000203	
* Chromium, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	0.000354	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	0.0671	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	2/1/22 11:43		10.15	10.1	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	7.10	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	0.00216	mg/L	0.000508	0.001015	
* Thallium, Dissolved	1/27/22 10:10	1/27/22 12:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/26/22 15:24	1/26/22 19:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/1/22 13:45	2/1/22 13:45		1	1.13	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	21.6	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	2150	mg/L		100	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	21.6	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.00	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/4/22 15:46	2/4/22 15:46		1	1.00	mg/L	1.00	2	J

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

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-1

Location Code: WMWGORPU
Collected: 1/25/22 10:15
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01605

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/26/22 15:15	1/26/22 15:15		1	2.09	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/27/22 11:04	1/27/22 11:04		1	0.101	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 13:09	2/7/22 13:09		40	1430	mg/L	20.00	40	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	1/25/22 10:08	1/25/22 10:08			2248.18	uS/cm			FA
pH	1/25/22 10:08	1/25/22 10:08			5.11	SU			FA
Temperature	1/25/22 10:08	1/25/22 10:08			20.40	C			FA
Turbidity	1/25/22 10:08	1/25/22 10:08			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.

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 10:15
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-1

Laboratory ID Number: BC01605

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC01611	Aluminum, Total	mg/L	0.000849	0.00880	0.100	0.100	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BC01610	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0984	0.0981	0.0977	0.0850 to 0.115	98.4	70.0 to 130	0.305	20.0
BC01611	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0970	0.101	0.0957	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BC01610	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.106	0.105	0.105	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01611	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.103	0.107	0.105	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BC01610	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.102	0.106	0.0997	0.0850 to 0.115	92.1	70.0 to 130	3.85	20.0
BC01611	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.0910	0.0910	0.0953	0.0850 to 0.115	91.0	70.0 to 130	0.00	20.0
BC01610	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0870	0.0866	0.0983	0.0850 to 0.115	87.0	70.0 to 130	0.461	20.0
BC01611	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0830	0.0889	0.0945	0.0850 to 0.115	83.0	70.0 to 130	6.86	20.0
BC01610	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	106	70.0 to 130	0.913	20.0
BC01611	Boron, Total	mg/L	-0.000624	0.0650	1.00	0.995	0.982	0.987	0.850 to 1.15	99.5	70.0 to 130	1.32	20.0
BC01610	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.107	0.107	0.105	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01611	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.104	0.108	0.107	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC01610	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	276	262	4.87	4.25 to 5.75	240	70.0 to 130	5.20	20.0
BC01611	Calcium, Total	mg/L	-0.0181	0.152	5.00	4.79	4.75	4.80	4.25 to 5.75	95.8	70.0 to 130	0.839	20.0
BC01610	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01611	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.101	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01610	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.102	0.0999	0.103	0.0850 to 0.115	102	70.0 to 130	2.08	20.0
BC01611	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.0991	0.102	0.101	0.0850 to 0.115	99.1	70.0 to 130	2.88	20.0
BC01610	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.201	0.200	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BC01611	Iron, Total	mg/L	-0.000334	0.0176	0.2	0.199	0.196	0.197	0.170 to 0.230	99.5	70.0 to 130	1.52	20.0
BC01610	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.110	0.107	0.110	0.0850 to 0.115	110	70.0 to 130	2.76	20.0
BC01611	Lead, Total	mg/L	0.000013	0.000147	0.100	0.105	0.110	0.115	0.0850 to 0.115	105	70.0 to 130	4.65	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 10:15
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-1

Laboratory ID Number: BC01605

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.252	0.250	0.194	0.170 to 0.230	104	70.0 to 130	0.797	20.0
BC01611	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC01610	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	441	425	5.01	4.25 to 5.75	240	70.0 to 130	3.70	20.0
BC01611	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	5.05	5.03	4.99	4.25 to 5.75	101	70.0 to 130	0.397	20.0
BC01610	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC01611	Manganese, Total	mg/L	0.0000277	0.000147	0.100	0.0999	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	3.06	20.0
BC01611	Mercury, Total by CVAA	mg/L	-8.000E-05	0.000500	0.004	0.00394	0.00392	0.00393	0.00340 to 0.00460	98.5	70.0 to 130	0.509	20.0
BC01610	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.0987	0.0998	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BC01611	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0980	0.102	0.101	0.0850 to 0.115	98.0	70.0 to 130	4.00	20.0
BC01610	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	17.4	17.2	9.82	8.50 to 11.5	100	70.0 to 130	1.16	20.0
BC01611	Potassium, Total	mg/L	-0.0160	0.367	10.0	9.56	9.91	9.85	8.50 to 11.5	95.6	70.0 to 130	3.60	20.0
BC01610	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.108	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.930	20.0
BC01611	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.105	0.107	0.107	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC01610	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	6.97	6.94	1.01	0.850 to 1.15	103	70.0 to 130	0.431	20.0
BC01611	Silicon, Total	mg/L	0.000194	0.0440	1.00	1.02	0.998	1.01	0.850 to 1.15	102	70.0 to 130	2.18	20.0
BC01610	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	36.9	36.9	4.84	4.25 to 5.75	76.0	70.0 to 130	0.00	20.0
BC01611	Sodium, Total	mg/L	0.00428	0.0660	5.00	4.96	5.01	4.97	4.25 to 5.75	99.2	70.0 to 130	1.00	20.0
BC01610	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01611	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01605	Total Organic Carbon	mg/L	0.220	1.00	10.0	10.5	10.8	23.7		95.0	80.0 to 120	2.82	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORPU
Sample Date: 1/25/22 10:15
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-1

Laboratory ID Number: BC01605

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01611	Chloride	mg/L	-0.0356	1.00	10.0	9.89	0.183	10.1	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BC01611	Fluoride	mg/L	0.0112	0.100	2.50	2.48	0.00933	2.48	2.25 to 2.75	99.2	80.0 to 120	0.00	20.0
BC01611	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	2.07	0.038	1.97	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC01610	Solids, Dissolved	mg/L	0.0000	25.0			3110	50.0	40.0 to 60.0			2.23	10.0
BC01611	Sulfate	mg/L	-0.682	1.00	20.0	17.9	-0.531	18.5	18.0 to 22.0	89.5	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.

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-2

Location Code: WMWGORPU
Collected: 1/25/22 11:33
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01606

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:39		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 11:20		20.3	179	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 10:39		1.015	1.18	mg/L	0.008120	0.0406	
* Lithium, Total	1/27/22 10:03	1/28/22 10:39		1.015	0.0510	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:20		20.3	194	mg/L	0.4263	8.12	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:39		1	11.1	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:39		1.015	5.20	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 10:39		1.015	20.1	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:24		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	1/27/22 09:52	1/28/22 09:59		20.3	195	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:24		1.015	1.06	mg/L	0.008120	0.0406	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:24		1.015	0.0490	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 09:59		20.3	207	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:24		1	11.1	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:24		1.015	5.18	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 09:24		1.015	19.2	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:19		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	1/27/22 09:55	1/27/22 15:19		1.015	0.000334	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 15:19		1.015	0.0122	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 15:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:19		1.015	0.0000812	mg/L	0.000068	0.000203	J
* Chromium, Total	1/27/22 09:55	1/27/22 15:19		1.015	0.000216	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 15:19		1.015	0.0166	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	2/1/22 12:29		10.15	4.05	mg/L	0.000680	0.00203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 15:19		1.015	5.80	mg/L	0.169505	0.5075	

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

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

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-2

Location Code: WMWGORPU
Collected: 1/25/22 11:33
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01606

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 15:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	0.000254	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	0.0134	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	0.000120	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	0.0170	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	2/1/22 11:46		10.15	4.01	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	6.07	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/26/22 15:24	1/26/22 19:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/1/22 13:47	2/1/22 13:47		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	344	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	1500	mg/L		100	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	344	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.08	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/4/22 16:40	2/4/22 16:40		1	1.84	mg/L	1.00	2	J

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

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-2

Location Code: WMWGORPU
Collected: 1/25/22 11:33
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01606

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/26/22 15:16	1/26/22 15:16		1	2.14	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 11:05	1/27/22 11:05		1	0.204	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 13:10	2/7/22 13:10		40	842	mg/L	20.00	40	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/25/22 11:28	1/25/22 11:28			1777.69	uS/cm			FA
pH	1/25/22 11:28	1/25/22 11:28			6.22	SU			FA
Temperature	1/25/22 11:28	1/25/22 11:28			20.03	C			FA
Turbidity	1/25/22 11:28	1/25/22 11:28			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.

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 11:33
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-2

Laboratory ID Number: BC01606

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC01611	Aluminum, Total	mg/L	0.000849	0.00880	0.100	0.100	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BC01610	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0984	0.0981	0.0977	0.0850 to 0.115	98.4	70.0 to 130	0.305	20.0
BC01611	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0970	0.101	0.0957	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BC01610	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.106	0.105	0.105	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01611	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.103	0.107	0.105	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BC01610	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.102	0.106	0.0997	0.0850 to 0.115	92.1	70.0 to 130	3.85	20.0
BC01611	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.0910	0.0910	0.0953	0.0850 to 0.115	91.0	70.0 to 130	0.00	20.0
BC01610	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0870	0.0866	0.0983	0.0850 to 0.115	87.0	70.0 to 130	0.461	20.0
BC01611	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0830	0.0889	0.0945	0.0850 to 0.115	83.0	70.0 to 130	6.86	20.0
BC01610	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	106	70.0 to 130	0.913	20.0
BC01611	Boron, Total	mg/L	-0.000624	0.0650	1.00	0.995	0.982	0.987	0.850 to 1.15	99.5	70.0 to 130	1.32	20.0
BC01610	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.107	0.107	0.105	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01611	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.104	0.108	0.107	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC01610	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	276	262	4.87	4.25 to 5.75	240	70.0 to 130	5.20	20.0
BC01611	Calcium, Total	mg/L	-0.0181	0.152	5.00	4.79	4.75	4.80	4.25 to 5.75	95.8	70.0 to 130	0.839	20.0
BC01610	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01611	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.101	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01610	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.102	0.0999	0.103	0.0850 to 0.115	102	70.0 to 130	2.08	20.0
BC01611	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.0991	0.102	0.101	0.0850 to 0.115	99.1	70.0 to 130	2.88	20.0
BC01610	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.201	0.200	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BC01611	Iron, Total	mg/L	-0.000334	0.0176	0.2	0.199	0.196	0.197	0.170 to 0.230	99.5	70.0 to 130	1.52	20.0
BC01610	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.110	0.107	0.110	0.0850 to 0.115	110	70.0 to 130	2.76	20.0
BC01611	Lead, Total	mg/L	0.000013	0.000147	0.100	0.105	0.110	0.115	0.0850 to 0.115	105	70.0 to 130	4.65	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 11:33
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-2

Laboratory ID Number: BC01606

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.252	0.250	0.194	0.170 to 0.230	104	70.0 to 130	0.797	20.0
BC01611	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC01610	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	441	425	5.01	4.25 to 5.75	240	70.0 to 130	3.70	20.0
BC01611	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	5.05	5.03	4.99	4.25 to 5.75	101	70.0 to 130	0.397	20.0
BC01610	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC01611	Manganese, Total	mg/L	0.0000277	0.000147	0.100	0.0999	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	3.06	20.0
BC01611	Mercury, Total by CVAA	mg/L	-8.000E-05	0.000500	0.004	0.00394	0.00392	0.00393	0.00340 to 0.00460	98.5	70.0 to 130	0.509	20.0
BC01610	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.0987	0.0998	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BC01611	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0980	0.102	0.101	0.0850 to 0.115	98.0	70.0 to 130	4.00	20.0
BC01610	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	17.4	17.2	9.82	8.50 to 11.5	100	70.0 to 130	1.16	20.0
BC01611	Potassium, Total	mg/L	-0.0160	0.367	10.0	9.56	9.91	9.85	8.50 to 11.5	95.6	70.0 to 130	3.60	20.0
BC01610	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.108	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.930	20.0
BC01611	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.105	0.107	0.107	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC01610	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	6.97	6.94	1.01	0.850 to 1.15	103	70.0 to 130	0.431	20.0
BC01611	Silicon, Total	mg/L	0.000194	0.0440	1.00	1.02	0.998	1.01	0.850 to 1.15	102	70.0 to 130	2.18	20.0
BC01610	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	36.9	36.9	4.84	4.25 to 5.75	76.0	70.0 to 130	0.00	20.0
BC01611	Sodium, Total	mg/L	0.00428	0.0660	5.00	4.96	5.01	4.97	4.25 to 5.75	99.2	70.0 to 130	1.00	20.0
BC01610	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01611	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01605	Total Organic Carbon	mg/L	0.220	1.00	10.0	10.5	10.8	23.7		95.0	80.0 to 120	2.82	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORPU
Sample Date: 1/25/22 11:33
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-2

Laboratory ID Number: BC01606

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01611	Chloride	mg/L	-0.0356	1.00	10.0	9.89	0.183	10.1	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BC01611	Fluoride	mg/L	0.0112	0.100	2.50	2.48	0.00933	2.48	2.25 to 2.75	99.2	80.0 to 120	0.00	20.0
BC01611	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	2.07	0.038	1.97	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC01610	Solids, Dissolved	mg/L	0.0000	25.0			3110	50.0	40.0 to 60.0			2.23	10.0
BC01611	Sulfate	mg/L	-0.682	1.00	20.0	17.9	-0.531	18.5	18.0 to 22.0	89.5	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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-2 DUP

Location Code: WMWGORPU
Collected: 1/25/22 11:33
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01607

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:40		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 11:22		20.3	180	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 10:40		1.015	1.16	mg/L	0.008120	0.0406	
* Lithium, Total	1/27/22 10:03	1/28/22 10:40		1.015	0.0502	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:22		20.3	197	mg/L	0.4263	8.12	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:40		1	11.2	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:40		1.015	5.22	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 10:40		1.015	19.8	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:26		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:01		20.3	193	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:26		1.015	1.10	mg/L	0.008120	0.0406	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:26		1.015	0.0486	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 10:01		20.3	207	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:26		1	11.5	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:26		1.015	5.37	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 09:26		1.015	19.2	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:23		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	1/27/22 09:55	1/27/22 15:23		1.015	0.000334	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 15:23		1.015	0.0127	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 15:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:23		1.015	0.0000931	mg/L	0.000068	0.000203	J
* Chromium, Total	1/27/22 09:55	1/27/22 15:23		1.015	0.000258	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 15:23		1.015	0.0167	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	2/1/22 12:32		10.15	4.01	mg/L	0.000680	0.00203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 15:23		1.015	5.95	mg/L	0.169505	0.5075	

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

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

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-2 DUP

Location Code: WMWGORPU
Collected: 1/25/22 11:33
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01607

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 15:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	0.000290	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	0.0121	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	0.000125	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	0.0171	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	2/1/22 11:50		10.15	4.05	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	5.84	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/26/22 15:24	1/26/22 19:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/1/22 13:48	2/1/22 13:48		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	326	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	1550	mg/L		100	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	326	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.08	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/4/22 16:59	2/4/22 16:59		1	1.57	mg/L	1.00	2	J

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

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-2 DUP

Location Code: WMWGORPU
Collected: 1/25/22 11:33
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01607

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/26/22 15:17	1/26/22 15:17		1	2.28	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 11:07	1/27/22 11:07		1	0.239	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 13:11	2/7/22 13:11		40	847	mg/L	20.00	40	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/25/22 11:28	1/25/22 11:28			1777.69	uS/cm			FA
pH	1/25/22 11:28	1/25/22 11:28			6.22	SU			FA
Temperature	1/25/22 11:28	1/25/22 11:28			20.03	C			FA
Turbidity	1/25/22 11:28	1/25/22 11:28			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.

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 11:33
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-2 DUP

Laboratory ID Number: BC01607

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC01611	Aluminum, Total	mg/L	0.000849	0.00880	0.100	0.100	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BC01610	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0984	0.0981	0.0977	0.0850 to 0.115	98.4	70.0 to 130	0.305	20.0
BC01611	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0970	0.101	0.0957	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BC01610	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.106	0.105	0.105	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01611	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.103	0.107	0.105	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BC01610	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.102	0.106	0.0997	0.0850 to 0.115	92.1	70.0 to 130	3.85	20.0
BC01611	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.0910	0.0910	0.0953	0.0850 to 0.115	91.0	70.0 to 130	0.00	20.0
BC01610	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0870	0.0866	0.0983	0.0850 to 0.115	87.0	70.0 to 130	0.461	20.0
BC01611	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0830	0.0889	0.0945	0.0850 to 0.115	83.0	70.0 to 130	6.86	20.0
BC01610	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	106	70.0 to 130	0.913	20.0
BC01611	Boron, Total	mg/L	-0.000624	0.0650	1.00	0.995	0.982	0.987	0.850 to 1.15	99.5	70.0 to 130	1.32	20.0
BC01610	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.107	0.107	0.105	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01611	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.104	0.108	0.107	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC01610	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	276	262	4.87	4.25 to 5.75	240	70.0 to 130	5.20	20.0
BC01611	Calcium, Total	mg/L	-0.0181	0.152	5.00	4.79	4.75	4.80	4.25 to 5.75	95.8	70.0 to 130	0.839	20.0
BC01610	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01611	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.101	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01610	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.102	0.0999	0.103	0.0850 to 0.115	102	70.0 to 130	2.08	20.0
BC01611	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.0991	0.102	0.101	0.0850 to 0.115	99.1	70.0 to 130	2.88	20.0
BC01610	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.201	0.200	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BC01611	Iron, Total	mg/L	-0.000334	0.0176	0.2	0.199	0.196	0.197	0.170 to 0.230	99.5	70.0 to 130	1.52	20.0
BC01610	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.110	0.107	0.110	0.0850 to 0.115	110	70.0 to 130	2.76	20.0
BC01611	Lead, Total	mg/L	0.000013	0.000147	0.100	0.105	0.110	0.115	0.0850 to 0.115	105	70.0 to 130	4.65	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 11:33
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-2 DUP

Laboratory ID Number: BC01607

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.252	0.250	0.194	0.170 to 0.230	104	70.0 to 130	0.797	20.0
BC01611	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC01610	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	441	425	5.01	4.25 to 5.75	240	70.0 to 130	3.70	20.0
BC01611	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	5.05	5.03	4.99	4.25 to 5.75	101	70.0 to 130	0.397	20.0
BC01610	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC01611	Manganese, Total	mg/L	0.0000277	0.000147	0.100	0.0999	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	3.06	20.0
BC01611	Mercury, Total by CVAA	mg/L	-8.000E-05	0.000500	0.004	0.00394	0.00392	0.00393	0.00340 to 0.00460	98.5	70.0 to 130	0.509	20.0
BC01610	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.0987	0.0998	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BC01611	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0980	0.102	0.101	0.0850 to 0.115	98.0	70.0 to 130	4.00	20.0
BC01610	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	17.4	17.2	9.82	8.50 to 11.5	100	70.0 to 130	1.16	20.0
BC01611	Potassium, Total	mg/L	-0.0160	0.367	10.0	9.56	9.91	9.85	8.50 to 11.5	95.6	70.0 to 130	3.60	20.0
BC01610	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.108	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.930	20.0
BC01611	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.105	0.107	0.107	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC01610	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	6.97	6.94	1.01	0.850 to 1.15	103	70.0 to 130	0.431	20.0
BC01611	Silicon, Total	mg/L	0.000194	0.0440	1.00	1.02	0.998	1.01	0.850 to 1.15	102	70.0 to 130	2.18	20.0
BC01610	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	36.9	36.9	4.84	4.25 to 5.75	76.0	70.0 to 130	0.00	20.0
BC01611	Sodium, Total	mg/L	0.00428	0.0660	5.00	4.96	5.01	4.97	4.25 to 5.75	99.2	70.0 to 130	1.00	20.0
BC01610	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01611	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01605	Total Organic Carbon	mg/L	0.220	1.00	10.0	10.5	10.8	23.7		95.0	80.0 to 120	2.82	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORPU
Sample Date: 1/25/22 11:33
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-2 DUP

Laboratory ID Number: BC01607

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01611	Chloride	mg/L	-0.0356	1.00	10.0	9.89	0.183	10.1	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BC01611	Fluoride	mg/L	0.0112	0.100	2.50	2.48	0.00933	2.48	2.25 to 2.75	99.2	80.0 to 120	0.00	20.0
BC01611	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	2.07	0.038	1.97	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC01610	Solids, Dissolved	mg/L	0.0000	25.0			3110	50.0	40.0 to 60.0			2.23	10.0
BC01611	Sulfate	mg/L	-0.682	1.00	20.0	17.9	-0.531	18.5	18.0 to 22.0	89.5	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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-3

Location Code: WMWGORPU
Collected: 1/25/22 12:58
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01608

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:42		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 11:24		20.3	285	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 10:42		1.015	0.0451	mg/L	0.008120	0.0406	
* Lithium, Total	1/27/22 10:03	1/28/22 10:42		1.015	0.0770	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:24		20.3	542	mg/L	0.4263	8.12	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:42		1	23.5	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:42		1.015	11.0	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 11:24		20.3	49.9	mg/L	0.609	8.12	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:27		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:03		20.3	305	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:27		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:27		1.015	0.0732	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 10:03		20.3	566	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:27		1	23.8	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:27		1.015	11.1	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 10:03		20.3	52.7	mg/L	0.609	8.12	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.0419	mg/L	0.004060	0.01015	
* Arsenic, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.000275	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.00821	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 15:26		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.00178	mg/L	0.000068	0.000203	
* Chromium, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.000509	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.00510	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 15:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.466	mg/L	0.000068	0.000203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.0000801	mg/L	0.000068	0.000203	J
* Potassium, Total	1/27/22 09:55	1/27/22 15:26		1.015	7.05	mg/L	0.169505	0.5075	

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

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

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-3

Location Code: WMWGORPU
Collected: 1/25/22 12:58
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01608

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 15:26		1.015	0.0154	mg/L	0.000508	0.001015	
* Thallium, Total	1/27/22 09:55	1/27/22 15:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.0317	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.000240	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.00871	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.00174	mg/L	0.000068	0.000203	
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.000340	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.00535	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.499	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	7.16	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	0.0163	mg/L	0.000508	0.001015	
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/26/22 15:24	1/26/22 20:03		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/1/22 13:49	2/1/22 13:49		1	3.70	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	71.5	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	3950	mg/L		208.3	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	71.5	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.01	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/4/22 17:17	2/4/22 17:17		1	1.01	mg/L	1.00	2	J

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

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

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-3

Location Code: WMWGORPU
Collected: 1/25/22 12:58
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01608

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/26/22 15:18	1/26/22 15:18		1	2.12	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 11:08	1/27/22 11:08		1	0.325	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 13:13	2/7/22 13:13		80	2550	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/25/22 12:53	1/25/22 12:53			3139.08	uS/cm			FA
pH	1/25/22 12:53	1/25/22 12:53			5.90	SU			FA
Temperature	1/25/22 12:53	1/25/22 12:53			20.01	C			FA
Turbidity	1/25/22 12:53	1/25/22 12:53			2.05	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.

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 12:58
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-3

Laboratory ID Number: BC01608

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC01611	Aluminum, Total	mg/L	0.000849	0.00880	0.100	0.100	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BC01610	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0984	0.0981	0.0977	0.0850 to 0.115	98.4	70.0 to 130	0.305	20.0
BC01611	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0970	0.101	0.0957	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BC01610	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.106	0.105	0.105	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01611	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.103	0.107	0.105	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BC01610	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.102	0.106	0.0997	0.0850 to 0.115	92.1	70.0 to 130	3.85	20.0
BC01611	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.0910	0.0910	0.0953	0.0850 to 0.115	91.0	70.0 to 130	0.00	20.0
BC01610	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0870	0.0866	0.0983	0.0850 to 0.115	87.0	70.0 to 130	0.461	20.0
BC01611	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0830	0.0889	0.0945	0.0850 to 0.115	83.0	70.0 to 130	6.86	20.0
BC01610	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	106	70.0 to 130	0.913	20.0
BC01611	Boron, Total	mg/L	-0.000624	0.0650	1.00	0.995	0.982	0.987	0.850 to 1.15	99.5	70.0 to 130	1.32	20.0
BC01610	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.107	0.107	0.105	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01611	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.104	0.108	0.107	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC01610	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	276	262	4.87	4.25 to 5.75	240	70.0 to 130	5.20	20.0
BC01611	Calcium, Total	mg/L	-0.0181	0.152	5.00	4.79	4.75	4.80	4.25 to 5.75	95.8	70.0 to 130	0.839	20.0
BC01610	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01611	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.101	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01610	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.102	0.0999	0.103	0.0850 to 0.115	102	70.0 to 130	2.08	20.0
BC01611	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.0991	0.102	0.101	0.0850 to 0.115	99.1	70.0 to 130	2.88	20.0
BC01610	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.201	0.200	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BC01611	Iron, Total	mg/L	-0.000334	0.0176	0.2	0.199	0.196	0.197	0.170 to 0.230	99.5	70.0 to 130	1.52	20.0
BC01610	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.110	0.107	0.110	0.0850 to 0.115	110	70.0 to 130	2.76	20.0
BC01611	Lead, Total	mg/L	0.000013	0.000147	0.100	0.105	0.110	0.115	0.0850 to 0.115	105	70.0 to 130	4.65	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 12:58
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-3

Laboratory ID Number: BC01608

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.252	0.250	0.194	0.170 to 0.230	104	70.0 to 130	0.797	20.0
BC01611	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC01610	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	441	425	5.01	4.25 to 5.75	240	70.0 to 130	3.70	20.0
BC01611	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	5.05	5.03	4.99	4.25 to 5.75	101	70.0 to 130	0.397	20.0
BC01610	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC01611	Manganese, Total	mg/L	0.0000277	0.000147	0.100	0.0999	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	3.06	20.0
BC01611	Mercury, Total by CVAA	mg/L	-8.000E-05	0.000500	0.004	0.00394	0.00392	0.00393	0.00340 to 0.00460	98.5	70.0 to 130	0.509	20.0
BC01610	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.0987	0.0998	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BC01611	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0980	0.102	0.101	0.0850 to 0.115	98.0	70.0 to 130	4.00	20.0
BC01610	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	17.4	17.2	9.82	8.50 to 11.5	100	70.0 to 130	1.16	20.0
BC01611	Potassium, Total	mg/L	-0.0160	0.367	10.0	9.56	9.91	9.85	8.50 to 11.5	95.6	70.0 to 130	3.60	20.0
BC01610	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.108	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.930	20.0
BC01611	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.105	0.107	0.107	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC01610	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	6.97	6.94	1.01	0.850 to 1.15	103	70.0 to 130	0.431	20.0
BC01611	Silicon, Total	mg/L	0.000194	0.0440	1.00	1.02	0.998	1.01	0.850 to 1.15	102	70.0 to 130	2.18	20.0
BC01610	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	36.9	36.9	4.84	4.25 to 5.75	76.0	70.0 to 130	0.00	20.0
BC01611	Sodium, Total	mg/L	0.00428	0.0660	5.00	4.96	5.01	4.97	4.25 to 5.75	99.2	70.0 to 130	1.00	20.0
BC01610	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01611	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01605	Total Organic Carbon	mg/L	0.220	1.00	10.0	10.5	10.8	23.7		95.0	80.0 to 120	2.82	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORPU
Sample Date: 1/25/22 12:58
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-3

Laboratory ID Number: BC01608

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01611	Chloride	mg/L	-0.0356	1.00	10.0	9.89	0.183	10.1	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BC01611	Fluoride	mg/L	0.0112	0.100	2.50	2.48	0.00933	2.48	2.25 to 2.75	99.2	80.0 to 120	0.00	20.0
BC01611	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	2.07	0.038	1.97	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC01610	Solids, Dissolved	mg/L	0.0000	25.0			3110	50.0	40.0 to 60.0			2.23	10.0
BC01611	Sulfate	mg/L	-0.682	1.00	20.0	17.9	-0.531	18.5	18.0 to 22.0	89.5	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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient Field Blank-1

Location Code: WMWGORPUFB
Collected: 1/25/22 13:45
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01609

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:44		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 10:44		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	1/27/22 10:03	1/28/22 10:44		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	1/27/22 10:03	1/28/22 10:44		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	1/27/22 10:03	1/28/22 10:44		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:44		1	Not Detected	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:44		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	1/27/22 10:03	1/28/22 10:44		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	1/27/22 15:30		1.015	0.000110	mg/L	0.000068	0.000203	J
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/26/22 15:24	1/26/22 20:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/1/22 13:50	2/1/22 13:50		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient Field Blank-1

Location Code: WMWGORPUFB
Collected: 1/25/22 13:45
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01609

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	2/4/22 17:34	2/4/22 17:34		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/26/22 15:20	1/26/22 15:20		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/27/22 11:09	1/27/22 11:09		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 13:14	2/7/22 13:14		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPUFB
Sample Date: 1/25/22 13:45
Customer ID:
Delivery Date: 1/26/22 09:58

Description:Gorgas Pooled Upgradient Field Blank-1

Laboratory ID Number: BC01609

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01611	Aluminum, Total	mg/L	0.000849	0.00880	0.100	0.100	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BC01611	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0970	0.101	0.0957	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BC01611	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.103	0.107	0.105	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BC01611	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.0910	0.0910	0.0953	0.0850 to 0.115	91.0	70.0 to 130	0.00	20.0
BC01611	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0830	0.0889	0.0945	0.0850 to 0.115	83.0	70.0 to 130	6.86	20.0
BC01611	Boron, Total	mg/L	-0.000624	0.0650	1.00	0.995	0.982	0.987	0.850 to 1.15	99.5	70.0 to 130	1.32	20.0
BC01611	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.104	0.108	0.107	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC01611	Calcium, Total	mg/L	-0.0181	0.152	5.00	4.79	4.75	4.80	4.25 to 5.75	95.8	70.0 to 130	0.839	20.0
BC01611	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.101	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01611	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.0991	0.102	0.101	0.0850 to 0.115	99.1	70.0 to 130	2.88	20.0
BC01611	Iron, Total	mg/L	-0.000334	0.0176	0.2	0.199	0.196	0.197	0.170 to 0.230	99.5	70.0 to 130	1.52	20.0
BC01611	Lead, Total	mg/L	0.000013	0.000147	0.100	0.105	0.110	0.115	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BC01611	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC01611	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	5.05	5.03	4.99	4.25 to 5.75	101	70.0 to 130	0.397	20.0
BC01611	Manganese, Total	mg/L	0.0000277	0.000147	0.100	0.0999	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	3.06	20.0
BC01611	Mercury, Total by CVAA	mg/L	-8.000E-05	0.000500	0.004	0.00394	0.00392	0.00393	0.00340 to 0.00460	98.5	70.0 to 130	0.509	20.0
BC01611	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0980	0.102	0.101	0.0850 to 0.115	98.0	70.0 to 130	4.00	20.0
BC01611	Potassium, Total	mg/L	-0.0160	0.367	10.0	9.56	9.91	9.85	8.50 to 11.5	95.6	70.0 to 130	3.60	20.0
BC01611	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.105	0.107	0.107	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC01611	Silicon, Total	mg/L	0.000194	0.0440	1.00	1.02	0.998	1.01	0.850 to 1.15	102	70.0 to 130	2.18	20.0
BC01611	Sodium, Total	mg/L	0.00428	0.0660	5.00	4.96	5.01	4.97	4.25 to 5.75	99.2	70.0 to 130	1.00	20.0
BC01611	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01605	Total Organic Carbon	mg/L	0.220	1.00	10.0	10.5	10.8	23.7		95.0	80.0 to 120	2.82	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORPUFB
Sample Date: 1/25/22 13:45
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient Field Blank-1

Laboratory ID Number: BC01609

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01611	Chloride	mg/L	-0.0356	1.00	10.0	9.89	0.183	10.1	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BC01611	Fluoride	mg/L	0.0112	0.100	2.50	2.48	0.00933	2.48	2.25 to 2.75	99.2	80.0 to 120	0.00	20.0
BC01611	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	2.07	0.038	1.97	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC01610	Solids, Dissolved	mg/L	0.0000	25.0			3110	50.0	40.0 to 60.0			2.23	10.0
BC01611	Sulfate	mg/L	-0.682	1.00	20.0	17.9	-0.531	18.5	18.0 to 22.0	89.5	80.0 to 120	0.00	20.0

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-4

Location Code: WMWGORPU
Collected: 1/25/22 14:40
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01610

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:46		1.015	0.0408	mg/L	0.030000	0.1015	J
* Calcium, Total	1/27/22 10:03	1/28/22 11:25		20.3	259	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 10:46		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	1/27/22 10:03	1/28/22 10:46		1.015	0.0433	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:25		20.3	424	mg/L	0.4263	8.12	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:46		1	12.4	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:46		1.015	5.80	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 10:46		1.015	33.1	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:29		1.015	0.0432	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:05		20.3	264	mg/L	1.4007	8.12	RA
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:29		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:29		1.015	0.0434	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 10:05		20.3	429	mg/L	0.4263	8.12	RA
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:29		1	12.7	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:29		1.015	5.94	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 09:29		1.015	33.1	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:33		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:33		1.015	0.00905	mg/L	0.004060	0.01015	J
* Arsenic, Total	1/27/22 09:55	1/27/22 15:33		1.015	0.0000875	mg/L	0.000068	0.000203	J
* Barium, Total	1/27/22 09:55	1/27/22 15:33		1.015	0.00908	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 15:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 15:33		1.015	0.000208	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 15:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	1/27/22 09:55	1/27/22 15:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	1/27/22 15:33		1.015	0.000745	mg/L	0.000068	0.000203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:33		1.015	0.000114	mg/L	0.000068	0.000203	J
* Potassium, Total	1/27/22 09:55	1/27/22 15:33		1.015	7.45	mg/L	0.169505	0.5075	

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

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

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-4

Location Code: WMWGORPU
Collected: 1/25/22 14:40
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01610

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 15:33		1.015	0.00224	mg/L	0.000508	0.001015	
* Thallium, Total	1/27/22 09:55	1/27/22 15:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	0.0000697	mg/L	0.000068	0.000203	J
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	0.00991	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	0.0000859	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	0.000216	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	0.000284	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	0.000110	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	7.38	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	0.00227	mg/L	0.000508	0.001015	
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/26/22 15:24	1/26/22 20:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/1/22 13:51	2/1/22 13:51		1	0.226	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	174	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	3180	mg/L		147.1	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	174	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.05	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/4/22 17:52	2/4/22 17:52		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient - MW-4

Location Code: WMWGORPU
Collected: 1/25/22 14:40
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01610

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/26/22 15:21	1/26/22 15:21		1	1.54	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/27/22 11:10	1/27/22 11:10		1	0.364	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 13:15	2/7/22 13:15		80	1930	mg/L	40.00	80	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	1/25/22 14:35	1/25/22 14:35			2843.39	uS/cm			FA
pH	1/25/22 14:35	1/25/22 14:35			6.30	SU			FA
Temperature	1/25/22 14:35	1/25/22 14:35			21.37	C			FA
Turbidity	1/25/22 14:35	1/25/22 14:35			1.1	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.

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 14:40
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-4

Laboratory ID Number: BC01610

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	0.104	0.103	0.104	0.0850 to 0.115	104	70.0 to 130	0.966	20.0
BC01611	Aluminum, Total	mg/L	0.000849	0.00880	0.100	0.100	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BC01610	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0984	0.0981	0.0977	0.0850 to 0.115	98.4	70.0 to 130	0.305	20.0
BC01611	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0970	0.101	0.0957	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BC01610	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.106	0.105	0.105	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01611	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.103	0.107	0.105	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BC01610	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.102	0.106	0.0997	0.0850 to 0.115	92.1	70.0 to 130	3.85	20.0
BC01611	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.0910	0.0910	0.0953	0.0850 to 0.115	91.0	70.0 to 130	0.00	20.0
BC01610	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0870	0.0866	0.0983	0.0850 to 0.115	87.0	70.0 to 130	0.461	20.0
BC01611	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0830	0.0889	0.0945	0.0850 to 0.115	83.0	70.0 to 130	6.86	20.0
BC01610	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.10	1.09	0.998	0.850 to 1.15	106	70.0 to 130	0.913	20.0
BC01611	Boron, Total	mg/L	-0.000624	0.0650	1.00	0.995	0.982	0.987	0.850 to 1.15	99.5	70.0 to 130	1.32	20.0
BC01610	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.107	0.107	0.105	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01611	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.104	0.108	0.107	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC01610	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	276	262	4.87	4.25 to 5.75	240	70.0 to 130	5.20	20.0
BC01611	Calcium, Total	mg/L	-0.0181	0.152	5.00	4.79	4.75	4.80	4.25 to 5.75	95.8	70.0 to 130	0.839	20.0
BC01610	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01611	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.101	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01610	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.102	0.0999	0.103	0.0850 to 0.115	102	70.0 to 130	2.08	20.0
BC01611	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.0991	0.102	0.101	0.0850 to 0.115	99.1	70.0 to 130	2.88	20.0
BC01610	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.201	0.200	0.201	0.170 to 0.230	100	70.0 to 130	0.499	20.0
BC01611	Iron, Total	mg/L	-0.000334	0.0176	0.2	0.199	0.196	0.197	0.170 to 0.230	99.5	70.0 to 130	1.52	20.0
BC01610	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.110	0.107	0.110	0.0850 to 0.115	110	70.0 to 130	2.76	20.0
BC01611	Lead, Total	mg/L	0.000013	0.000147	0.100	0.105	0.110	0.115	0.0850 to 0.115	105	70.0 to 130	4.65	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPU
Sample Date: 1/25/22 14:40
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-4

Laboratory ID Number: BC01610

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01610	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.252	0.250	0.194	0.170 to 0.230	104	70.0 to 130	0.797	20.0
BC01611	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC01610	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	441	425	5.01	4.25 to 5.75	240	70.0 to 130	3.70	20.0
BC01611	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	5.05	5.03	4.99	4.25 to 5.75	101	70.0 to 130	0.397	20.0
BC01610	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC01611	Manganese, Total	mg/L	0.0000277	0.000147	0.100	0.0999	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	3.06	20.0
BC01611	Mercury, Total by CVAA	mg/L	-8.000E-05	0.000500	0.004	0.00394	0.00392	0.00393	0.00340 to 0.00460	98.5	70.0 to 130	0.509	20.0
BC01610	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.0987	0.0998	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BC01611	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0980	0.102	0.101	0.0850 to 0.115	98.0	70.0 to 130	4.00	20.0
BC01610	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	17.4	17.2	9.82	8.50 to 11.5	100	70.0 to 130	1.16	20.0
BC01611	Potassium, Total	mg/L	-0.0160	0.367	10.0	9.56	9.91	9.85	8.50 to 11.5	95.6	70.0 to 130	3.60	20.0
BC01610	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.108	0.107	0.108	0.0850 to 0.115	106	70.0 to 130	0.930	20.0
BC01611	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.105	0.107	0.107	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC01610	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	6.97	6.94	1.01	0.850 to 1.15	103	70.0 to 130	0.431	20.0
BC01611	Silicon, Total	mg/L	0.000194	0.0440	1.00	1.02	0.998	1.01	0.850 to 1.15	102	70.0 to 130	2.18	20.0
BC01610	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	36.9	36.9	4.84	4.25 to 5.75	76.0	70.0 to 130	0.00	20.0
BC01611	Sodium, Total	mg/L	0.00428	0.0660	5.00	4.96	5.01	4.97	4.25 to 5.75	99.2	70.0 to 130	1.00	20.0
BC01610	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.103	0.104	0.105	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01611	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01605	Total Organic Carbon	mg/L	0.220	1.00	10.0	10.5	10.8	23.7		95.0	80.0 to 120	2.82	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORPU
Sample Date: 1/25/22 14:40
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient - MW-4

Laboratory ID Number: BC01610

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01611	Chloride	mg/L	-0.0356	1.00	10.0	9.89	0.183	10.1	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BC01611	Fluoride	mg/L	0.0112	0.100	2.50	2.48	0.00933	2.48	2.25 to 2.75	99.2	80.0 to 120	0.00	20.0
BC01611	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	2.07	0.038	1.97	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC01610	Solids, Dissolved	mg/L	0.0000	25.0			3110	50.0	40.0 to 60.0			2.23	10.0
BC01611	Sulfate	mg/L	-0.682	1.00	20.0	17.9	-0.531	18.5	18.0 to 22.0	89.5	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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient Equipment Blank-1

Location Code: WMWGORPUEB
Collected: 1/25/22 15:10
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01611

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:48		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 10:48		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	1/27/22 10:03	1/28/22 10:48		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	1/27/22 10:03	1/28/22 10:48		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	1/27/22 10:03	1/28/22 10:48		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:48		1	Not Detected	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:48		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	1/27/22 10:03	1/28/22 10:48		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 15:37		1.015	0.000207	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/26/22 15:24	1/26/22 20:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/1/22 13:52	2/1/22 13:52		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Pooled Upgradient Equipment Blank-1

Location Code: WMWGORPUEB
Collected: 1/25/22 15:10
Customer ID:
Submittal Date: 1/26/22 09:58

Laboratory ID Number: BC01611

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	2/4/22 18:09	2/4/22 18:09		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/26/22 15:22	1/26/22 15:22		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/27/22 11:11	1/27/22 11:11		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 13:16	2/7/22 13:16		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORPUEB
Sample Date: 1/25/22 15:10
Customer ID:
Delivery Date: 1/26/22 09:58

Description:Gorgas Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC01611

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01611	Aluminum, Total	mg/L	0.000849	0.00880	0.100	0.100	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	3.92	20.0
BC01611	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0970	0.101	0.0957	0.0850 to 0.115	97.0	70.0 to 130	4.04	20.0
BC01611	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.103	0.107	0.105	0.0850 to 0.115	103	70.0 to 130	3.81	20.0
BC01611	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.0910	0.0910	0.0953	0.0850 to 0.115	91.0	70.0 to 130	0.00	20.0
BC01611	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0830	0.0889	0.0945	0.0850 to 0.115	83.0	70.0 to 130	6.86	20.0
BC01611	Boron, Total	mg/L	-0.000624	0.0650	1.00	0.995	0.982	0.987	0.850 to 1.15	99.5	70.0 to 130	1.32	20.0
BC01611	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.104	0.108	0.107	0.0850 to 0.115	104	70.0 to 130	3.77	20.0
BC01611	Calcium, Total	mg/L	-0.0181	0.152	5.00	4.79	4.75	4.80	4.25 to 5.75	95.8	70.0 to 130	0.839	20.0
BC01611	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.101	0.105	0.104	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01611	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.0991	0.102	0.101	0.0850 to 0.115	99.1	70.0 to 130	2.88	20.0
BC01611	Iron, Total	mg/L	-0.000334	0.0176	0.2	0.199	0.196	0.197	0.170 to 0.230	99.5	70.0 to 130	1.52	20.0
BC01611	Lead, Total	mg/L	0.000013	0.000147	0.100	0.105	0.110	0.115	0.0850 to 0.115	105	70.0 to 130	4.65	20.0
BC01611	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC01611	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	5.05	5.03	4.99	4.25 to 5.75	101	70.0 to 130	0.397	20.0
BC01611	Manganese, Total	mg/L	0.0000277	0.000147	0.100	0.0999	0.103	0.102	0.0850 to 0.115	99.9	70.0 to 130	3.06	20.0
BC01611	Mercury, Total by CVAA	mg/L	-8.000E-05	0.000500	0.004	0.00394	0.00392	0.00393	0.00340 to 0.00460	98.5	70.0 to 130	0.509	20.0
BC01611	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0980	0.102	0.101	0.0850 to 0.115	98.0	70.0 to 130	4.00	20.0
BC01611	Potassium, Total	mg/L	-0.0160	0.367	10.0	9.56	9.91	9.85	8.50 to 11.5	95.6	70.0 to 130	3.60	20.0
BC01611	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.105	0.107	0.107	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC01611	Silicon, Total	mg/L	0.000194	0.0440	1.00	1.02	0.998	1.01	0.850 to 1.15	102	70.0 to 130	2.18	20.0
BC01611	Sodium, Total	mg/L	0.00428	0.0660	5.00	4.96	5.01	4.97	4.25 to 5.75	99.2	70.0 to 130	1.00	20.0
BC01611	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC01605	Total Organic Carbon	mg/L	0.220	1.00	10.0	10.5	10.8	23.7		95.0	80.0 to 120	2.82	20.0

Comments:

Reported: 2/28/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORPUEB
Sample Date: 1/25/22 15:10
Customer ID:
Delivery Date: 1/26/22 09:58

Description: Gorgas Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC01611

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01611	Chloride	mg/L	-0.0356	1.00	10.0	9.89	0.183	10.1	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BC01611	Fluoride	mg/L	0.0112	0.100	2.50	2.48	0.00933	2.48	2.25 to 2.75	99.2	80.0 to 120	0.00	20.0
BC01611	Nitrogen, Nitrate/Nitrite	mg/L as N	0.03	0.200	2.00	2.07	0.038	1.97	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC01610	Solids, Dissolved	mg/L	0.0000	25.0			3110	50.0	40.0 to 60.0			2.23	10.0
BC01611	Sulfate	mg/L	-0.682	1.00	20.0	17.9	-0.531	18.5	18.0 to 22.0	89.5	80.0 to 120	0.00	20.0

Comments:

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

Definitions

Alabama Power

Project Number: WMWGORPU_1347

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

Qualifier	Description
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.

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
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Gorgas Pooled Upgradient

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

Comments: Nitrate/nitrite, TOC pH<2. LBM 1/26/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	01/25/2022	10:15	7	Groundwater		BC01605
MW-2	01/25/2022	11:33	7	Groundwater		BC01606
MW-2 Dup	01/25/2022	11:33	7	Sample Duplicate		BC01607
MW-3	01/25/2022	12:58	7	Groundwater		BC01608
FB-1	01/25/2022	13:45	5	Field Blank		BC01609
MW-4	01/25/2022	14:40	7	Groundwater		BC01610
EB-1	01/25/2022	15:10	5	Equipment Blank		BC01611

Relinquished By	Received By	Date/Time
		01/25/2022 16:45
		01/26/2022 08:09

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	0.2 degrees C
Sample Event	1347	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Gorgas Pooled Upgradient

Bottles													
	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Sulfide	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Rad MS/MSD @ MW-1
Sulfide bottles pH>9. LBM 1/26/22 Adding date/time per inhouse COC. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	01/25/2022	10:15	4	Groundwater		BC01612
MW-2	01/25/2022	11:33	2	Groundwater		BC01613
MW-2 Dup	01/25/2022	11:33	2	Sample Duplicate		BC01614
MW-3	01/25/2022	12:58	2	Groundwater		BC01615
FB-1	01/25/2022	13:45	2	Field Blank		BC01616
MW-4	01/25/2022	14:40	2	Groundwater		BC01617
EB-1	01/25/2022	15:10	2	Equipment Blank		BC01618

Relinquished By	Received By	Date/Time
		01/25/2022 16:45
		01/26/2022 08:09

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	0.2 degrees C
Sample Event	1347	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

March 22, 2022

Laura Midkiff
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory between January 31, 2022 and February 08, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

This report replaces the March, 11, 2022 report. This project was revised to update the lab qualifiers.

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

Sincerely,

Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Brooke Caton, Alabama Power
Renee Jernigan, Alabama Power

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30461864001	**BC01612 MW-1**	Water	01/25/22 10:15	01/31/22 09:35
30461864002	**BC01613 MW-2**	Water	01/25/22 11:33	01/31/22 09:35
30461864003	**BC01614 MW-2 DUP**	Water	01/25/22 11:33	01/31/22 09:35
30461864004	**BC01615 MW-3**	Water	01/25/22 12:58	01/31/22 09:35
30461864005	**BC01616 FB-1**	Water	01/25/22 13:45	01/31/22 09:35
30461864006	**BC01617 MW-4**	Water	01/25/22 14:40	01/31/22 09:35
30461864007	**BC01618 EB-1**	Water	01/25/22 15:10	01/31/22 09:35
30461864008	**-**	Water	01/25/22 11:33	02/08/22 12:44
30461864009	**BC01612 MW-1 MS**	Water	01/25/22 10:15	02/08/22 13:37
30461864010	**BC01612 MW-1 MSD**	Water	01/25/22 10:15	02/08/22 13:37

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30461864001	**BC01612 MW-1**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30461864002	**BC01613 MW-2**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30461864003	**BC01614 MW-2 DUP**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30461864004	**BC01615 MW-3**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30461864005	**BC01616 FB-1**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30461864006	**BC01617 MW-4**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30461864007	**BC01618 EB-1**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30461864009	**BC01612 MW-1 MS**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30461864010	**BC01612 MW-1 MSD**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Method: **EPA 9315**
Description: 9315 Total Radium
Client: Alabama Power
Date: March 22, 2022

General Information:
9 samples were analyzed for EPA 9315 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Method: **EPA 9320**
Description: 9320 Radium 228
Client: Alabama Power
Date: March 22, 2022

General Information:
9 samples were analyzed for EPA 9320 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Alabama Power
Date: March 22, 2022

General Information:
7 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01612 MW-1 **Lab ID: 30461864001** Collected: 01/25/22 10:15 Received: 01/31/22 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.344 ± 0.226 (0.340) C:99% T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.667U ± 0.559 (1.12) C:78% T:59%**	pCi/L	02/16/22 15:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.01U ± 0.785 (1.46)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01613 MW-2 **Lab ID: 30461864002** Collected: 01/25/22 11:33 Received: 01/31/22 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.292U ± 0.213 (0.335) C:97% T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.371U ± 0.301 (0.595) C:81% T:92%**	pCi/L	02/16/22 15:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.663U ± 0.514 (0.930)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01614 MW-2 DUP **Lab ID: 30461864003** Collected: 01/25/22 11:33 Received: 01/31/22 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.326U ± 0.225 (0.355) C:98% T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.215U ± 0.323 (0.697) C:70% T:87%**	pCi/L	02/16/22 15:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.541U ± 0.548 (1.05)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01615 MW-3 **Lab ID: 30461864004** Collected: 01/25/22 12:58 Received: 01/31/22 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.109U ± 0.154 (0.323) C:97% T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.309U ± 0.328 (0.679) C:76% T:83%**	pCi/L	02/16/22 15:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.418U ± 0.482 (1.00)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01616 FB-1 **Lab ID: 30461864005** Collected: 01/25/22 13:45 Received: 01/31/22 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0474U ± 0.159 (0.398) C:93% T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.227U± 0.307 (0.657) C:79% T:92%**	pCi/L	02/16/22 15:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.274U ± 0.466 (1.06)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01617 MW-4 **Lab ID: 30461864006** Collected: 01/25/22 14:40 Received: 01/31/22 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.184U ± 0.229 (0.483) C:96% T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.700 ± 0.379 (0.671) C:76% T:90%**	pCi/L	02/16/22 15:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.884U ± 0.608 (1.15)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01618 EB-1 **Lab ID: 30461864007** Collected: 01/25/22 15:10 Received: 01/31/22 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.194U ± 0.215 (0.426) C:85% T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.385U ± 0.373 (0.757) C:74% T:73%**	pCi/L	02/16/22 15:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.579U ± 0.588 (1.18)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01612 MW-1 MS **Lab ID: 30461864009** Collected: 01/25/22 10:15 Received: 02/08/22 13:37 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • Sample is an MS of 30461864 001.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 9315	**90.02 %REC ± NA (NA) C:NA T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 9320	**76.40 %REC ± NA (NA) C:NA T:NA**	pCi/L	02/16/22 15:15	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Sample: BC01612 MW-1 MSD **Lab ID: 30461864010** Collected: 01/25/22 10:15 Received: 02/08/22 13:37 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • Sample is an MSD of 30461864 001.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**101.91 %REC ± NA (NA) C:NA T:NA**	pCi/L	03/07/22 08:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**86.53 %REC 12.43 RPD ± NA (NA) C:NA T:NA**	pCi/L	02/16/22 15:16	15262-20-1	

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

QC Batch: 482647 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30461864001, 30461864002, 30461864003, 30461864004, 30461864005, 30461864006, 30461864007, 30461864009, 30461864010

METHOD BLANK: 2332794 Matrix: Water
Associated Lab Samples: 30461864001, 30461864002, 30461864003, 30461864004, 30461864005, 30461864006, 30461864007, 30461864009, 30461864010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.113 ± 0.297 (0.666) C:81% T:74%	pCi/L	02/16/22 15:14	

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

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

QC Batch: 482099
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30461864001, 30461864002, 30461864003, 30461864004, 30461864005, 30461864006, 30461864007, 30461864009, 30461864010

METHOD BLANK: 2330654 Matrix: Water
Associated Lab Samples: 30461864001, 30461864002, 30461864003, 30461864004, 30461864005, 30461864006, 30461864007, 30461864009, 30461864010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.218 ± 0.189 (0.326) C:97% T:NA	pCi/L	03/07/22 08:05	

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

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORPU_1347-Revised Report
Pace Project No.: 30461864

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30461864001	**BC01612 MW-1**	EPA 9315	482099		
30461864002	**BC01613 MW-2**	EPA 9315	482099		
30461864003	**BC01614 MW-2 DUP**	EPA 9315	482099		
30461864004	**BC01615 MW-3**	EPA 9315	482099		
30461864005	**BC01616 FB-1**	EPA 9315	482099		
30461864006	**BC01617 MW-4**	EPA 9315	482099		
30461864007	**BC01618 EB-1**	EPA 9315	482099		
30461864009	**BC01612 MW-1 MS**	EPA 9315	482099		
30461864010	**BC01612 MW-1 MSD**	EPA 9315	482099		
30461864001	**BC01612 MW-1**	EPA 9320	482647		
30461864002	**BC01613 MW-2**	EPA 9320	482647		
30461864003	**BC01614 MW-2 DUP**	EPA 9320	482647		
30461864004	**BC01615 MW-3**	EPA 9320	482647		
30461864005	**BC01616 FB-1**	EPA 9320	482647		
30461864006	**BC01617 MW-4**	EPA 9320	482647		
30461864007	**BC01618 EB-1**	EPA 9320	482647		
30461864009	**BC01612 MW-1 MS**	EPA 9320	482647		
30461864010	**BC01612 MW-1 MSD**	EPA 9320	482647		
30461864001	**BC01612 MW-1**	Total Radium Calculation	488597		
30461864002	**BC01613 MW-2**	Total Radium Calculation	488597		
30461864003	**BC01614 MW-2 DUP**	Total Radium Calculation	488597		
30461864004	**BC01615 MW-3**	Total Radium Calculation	488597		
30461864005	**BC01616 FB-1**	Total Radium Calculation	488597		
30461864006	**BC01617 MW-4**	Total Radium Calculation	488597		
30461864007	**BC01618 EB-1**	Total Radium Calculation	488597		

WO# : 30461864

30461864

CHAIN-OF-CUSTODY / Analytical Request Dc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

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	Copy To:	Brooke Caton & Renee Jernigan	Company Name:	Alabama Power Co.
	Calera, AL 35040			Address:	744 Highway 87 GSC Bldg #8
Email To:	lbmidkif@southernco.com	Purchase Order #:	APC10700668	Pace Quote:	CCR
Phone:	205-664-6197 Fax:	Project Name:	Plant Gorgas Pooled Upgradient	Pace Project Manager:	Heather Dennison
Requested Due Date:	Normal	Project Number:	WMWGORPU_1347	Pace Profile #:	13805

Regulatory Agency	State / Location
	AL

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	Requested Analysis Filtered (Y/N) RSM 1/28/22	# OF CONTAINERS	Preservatives: Unpreserved	Preservatives: NaOH+ZnAcetate	Preservatives: HNO3	Preservatives:	Preservatives:	Y/N	Analyses Test: EPA 9315	Analyses Test: EPA 9320	Analyses Test: Total Radium Sum	Analyses Test: Total Sulfide		Residual Chlorine (Y/N)	
1	BC01612	MW-1	APCO-GS-UP-MW-1	APCO_Gorgas_Pooled_Upgradient		X		GW	G	1/25/2022	10:15		3			X				X	X	X				001
2	BC01613	MW-2	APCO-GS-UP-MW-2	APCO_Gorgas_Pooled_Upgradient				GW	G	1/25/2022	11:33		1			X				X	X	X				002
3	BC01614	MW-2 DUP	APCO-GS-UP-MW-2	APCO_Gorgas_Pooled_Upgradient	X			GW	G	1/25/2022	11:33		1			X				X	X	X				003
4	BC01615	MW-3	APCO-GS-UP-MW-3	APCO_Gorgas_Pooled_Upgradient				GW	G	1/25/2022	12:58		1			X				X	X	X				004
5	BC01616	FB-1	APCO-GS-UP-FB-01	APCO_Gorgas_Pooled_Upgradient				GW	G	1/25/2022	13:45		1			X				X	X	X				005
6	BC01617	MW-4	APCO-GS-UP-MW-4	APCO_Gorgas_Pooled_Upgradient				GW	G	1/25/2022	14:40		1			X				X	X	X				006
7	BC01618	EB-1	APCO-GS-UP-EB-01	APCO_Gorgas_Pooled_Upgradient				GW	G	1/25/2022	15:10		1			X				X	X	X				007
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Laura Midkiff/ APC GTL	1/28/2022	8:22	T Pelregon	1-31-22	9:35	—	N	Y	Y

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)

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: Alabama Power Company Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Label 2a
LIMS Login VPIN

Tracking #: 5557 2008 5857

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# 10D2811 / Date and Initials of person examining contents: 2.22.22 2a
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix: WT				
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests 2a 2.22.22	✓		✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	✓			16. pH <2
All containers meet method preservation requirements.	✓			Initial when completed 2a Date/time of preservation Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:			✓	18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr	✓			Initial when completed: 2a Date: 2.22.22 Survey Meter SN: 1563

WO#: 30461864
PM: AES Due Date: 02/21/22
CLIENT: ALABAMA PWR

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.

Pace Analytical®

Pace C **WO# : 30461864** Container Count

PM: AES Due Date: 02/21/22

CLIENT: ALABAMA PWR

Client Alabama Power Company

Site Plant Gorgas Pooled Upgradient

Profile Number 16788

Notes

Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
1	WT											3																	
2	WT											1																	
3	WT											1																	
4	WT											1																	
5	WT											1																	
6	WT											1																	
7	WT											1																	
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass

GJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unprserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosul
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	1L amber glass Na Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserve
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved		

Plastic / Misc.

GCUB	1 Gallon Cubitainer
12GN	1/2 Gallon Cubitainer
SP5T	120mL Coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250ml plastic NAOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved

EZI	5g Encore
VOAK	Kit for Volatile Solid
I	Wipe/Swab
ZPLC	Ziploc Bag

WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	JJY
Date:	2/14/2022
Worklist:	64954
Matrix:	DW

Method Blank Assessment	
MB Sample ID	2330654
MB concentration:	0.218
M/B Counting Uncertainty:	0.186
MB MDC:	0.326
MB Numerical Performance Indicator:	2.30
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS64954	**LCSD64954**
Count Date:	3/7/2022	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.029	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.213	
Target Conc. (pCi/L, g, F):	11.304	
Uncertainty (Calculated):	0.136	
Result (pCi/L, g, F):	11.019	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.067	
Numerical Performance Indicator:	-0.52	
Percent Recovery:	97.48%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	1/25/2022	1/25/2022
Sample I.D.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
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):	0.204	0.203
MS Target Conc.(pCi/L, g, F):	23.508	23.703
MSD Aliquot (L, g, F):	0.204	0.202
MSD Target Conc. (pCi/L, g, F):	23.538	23.844
MS Spike Uncertainty (calculated):	0.282	0.284
MSD Spike Uncertainty (calculated):	0.282	0.286
Sample Result:	0.344	0.135
Sample Result Counting Uncertainty (pCi/L, g, F):	0.221	0.183
Sample Matrix Spike Result:	21.507	21.835
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.510	1.546
Sample Matrix Spike Duplicate Result:	24.332	24.899
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.610	1.632
MS Numerical Performance Indicator:	-2.963	-2.481
MSD Numerical Performance Indicator:	0.534	1.081
MS Percent Recovery:	90.02%	91.55%
MSD Percent Recovery:	101.91%	103.86%
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%

Duplicate Sample Assessment		
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?	See Below ##	
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Sample Matrix Spike Result:	21.507	21.835
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.510	1.546
Sample Matrix Spike Duplicate Result:	24.332	24.899
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.610	1.632
Duplicate Numerical Performance Indicator:	-2.509	-2.671
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	12.39%	12.60%
MS/ MSD Duplicate Status vs Numerical Indicator:	N/A	N/A
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:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	VAL
Date:	2/14/2022
Worklist:	64977
Matrix:	W I

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2332794
MB concentration:	0.113
M/B 2 Sigma CSU:	0.297
MB MDC:	0.666
MB Numerical Performance Indicator:	0.75
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS64977	LCSD64977
Count Date:	2/16/2022	
Spike I.D.:	21-029	
Decay Corrected Spike Concentration (pCi/mL):	36.317	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.805	
Target Conc. (pCi/L, g, F):	4.511	
Uncertainty (Calculated):	0.221	
Result (pCi/L, g, F):	3.017	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.809	
Numerical Performance Indicator:	-3.49	
Percent Recovery:	66.89%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	135%	
Lower % Recovery Limits:	60%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	1/25/2022	1/25/2022
Sample I.D.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Spike I.D.:	21-029	21-029
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.584	36.584
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):	0.803	0.808
MS Target Conc.(pCi/L, g, F):	9.111	9.059
MSD Aliquot (L, g, F):	0.812	0.807
MSD Target Conc. (pCi/L, g, F):	9.008	9.068
MS Spike Uncertainty (calculated):	0.446	0.444
MSD Spike Uncertainty (calculated):	0.441	0.444
Sample Result:	0.667	-0.358
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.559	0.371
Sample Matrix Spike Result:	7.628	7.865
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.654	1.643
Sample Matrix Spike Duplicate Result:	8.461	7.496
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.807	1.575
MS Numerical Performance Indicator:	-2.339	-0.940
MSD Numerical Performance Indicator:	-1.224	-1.417
MS Percent Recovery:	76.40%	90.78%
MSD Percent Recovery:	86.53%	86.62%
MS Status vs Numerical Indicator:	Warning	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%

Duplicate Sample Assessment		
Sample I.D.:		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.		
Sample Result (pCi/L, g, F):		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Sample Matrix Spike Result:	7.628	7.865
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.654	1.643
Sample Matrix Spike Duplicate Result:	8.461	7.496
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.807	1.575
Duplicate Numerical Performance Indicator:	-0.667	0.317
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	12.43%	4.68%
MS/ MSD Duplicate Status vs Numerical Indicator:	Pass	Pass
MS/ MSD Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	36%	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/21/22

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

Analytical Report

Alabama Power

Sample Group : WMWGORG_1348

Project/Site : Gorgas Gypsum
Parrish, AL 35580

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

Attention : Dustin Brooks & Greg Dyer

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

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

March 10, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between January 26, 2022 and January 27, 2022. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2022

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

Sincerely,

Quality Control: Laura Midkiff
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2022.03.10 09:30:42 -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: 2022.03.14 13:40:23 -05'00'

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

Case Narrative

Alabama Power

Total Metals ICP

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	716891	WMWGORG_1348
BC01620	716891	WMWGORG_1348
BC01621	716891	WMWGORG_1348
BC01622	716891	WMWGORG_1348
BC01623	716891	WMWGORG_1348
BC01624	716891	WMWGORG_1348
BC01625	716891	WMWGORG_1348
BC01768	717265	WMWGORG_1348
BC01769	717265	WMWGORG_1348
BC01770	717265	WMWGORG_1348
BC01771	717265	WMWGORG_1348
BC01772	717265	WMWGORG_1348
BC01773	717265	WMWGORG_1348
BC01774	717265	WMWGORG_1348
BC01775	717265	WMWGORG_1348
BC01776	717265	WMWGORG_1348
BC01777	717265	WMWGORG_1348
BC01778	717266	WMWGORG_1348
BC01779	717266	WMWGORG_1348
BC01780	717266	WMWGORG_1348
BC01781	717266	WMWGORG_1348
BC01782	717266	WMWGORG_1348
BC01783	717266	WMWGORG_1348
BC01784	717266	WMWGORG_1348

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
    - BC01625 Calcium & Magnesium MS/MSD spike levels were <30% of the sample concentrations.
    - BC01777 Calcium, Magnesium, & Sodium MS/MSD spike levels were <30% of the sample concentrations.
    - BC01784 Calcium, Iron, Magnesium, & Silicon MS/MSD spike levels were <30% of the sample concentrations.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01619	Sodium	20.3
BC01620	Calcium, Iron	20.3
BC01621	Calcium, Iron, Magnesium, Sodium	10.15
BC01623	Calcium, Magnesium, Sodium	20.3
BC01624	Calcium, Magnesium	20.3
BC01625	Calcium, Magnesium	20.3
BC01768	Calcium, Iron, Magnesium, Sodium	101.5
BC01769	Sodium	101.5
BC01770	Calcium, Iron, Magnesium, Sodium	101.5
BC01771	Calcium, Iron, Magnesium	101.5
BC01772	Calcium, Magnesium	10.15
BC01773	Calcium, Magnesium, Sodium	10.15
BC01774	Calcium, Iron, Magnesium, Sodium	20.3
BC01775	Calcium, Iron, Magnesium, Sodium	20.3
BC01776	Calcium, Magnesium, Sodium	20.3
BC01777	Calcium, Iron, Magnesium, Sodium	20.3
BC01778	Calcium, Iron, Magnesium, Sodium	101.5
BC01779	Calcium, Iron, Magnesium, Sodium	101.5
BC01782	Calcium, Iron, Magnesium	10.15
BC01783	Calcium, Iron, Magnesium, Silicon	10.15
BC01784	Calcium, Iron, Magnesium, Silicon	10.15

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

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

Case Narrative

Alabama Power

Dissolved Metals ICP

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	716866	WMWGORG_1348
BC01620	716866	WMWGORG_1348
BC01621	716866	WMWGORG_1348
BC01623	716866	WMWGORG_1348
BC01624	716866	WMWGORG_1348
BC01625	716866	WMWGORG_1348
BC01768	717233	WMWGORG_1348
BC01769	717233	WMWGORG_1348
BC01770	717233	WMWGORG_1348
BC01771	717233	WMWGORG_1348
BC01772	717233	WMWGORG_1348
BC01773	717233	WMWGORG_1348
BC01774	717233	WMWGORG_1348
BC01775	717233	WMWGORG_1348
BC01776	717233	WMWGORG_1348
BC01777	717233	WMWGORG_1348
BC01778	717234	WMWGORG_1348
BC01779	717234	WMWGORG_1348
BC01782	717234	WMWGORG_1348
BC01783	717234	WMWGORG_1348
BC01784	717234	WMWGORG_1348

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met, except for the following:
    - BC01625 Silicon MS/MSD spike levels were <30% of the sample concentrations.
    - BC01777 Calcium, Iron, Magnesium, & Sodium MS/MSD spike levels were <30% of the sample concentrations.
    - BC01784 Calcium, Iron, & Magnesium MS/MSD spike levels were <30% of the sample concentrations.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01619	Sodium	20.3
BC01620	Calcium, Iron	20.3
BC01621	Calcium, Iron, Magnesium, Sodium	10.15
BC01623	Calcium, Magnesium, Sodium	20.3
BC01624	Calcium, Magnesium	20.3
BC01625	Calcium, Magnesium	20.3
BC01768	Calcium, Iron, Magnesium, Sodium	101.5
BC01769	Sodium	101.5
BC01770	Calcium, Iron, Magnesium, Sodium	101.5
BC01771	Calcium, Iron, Magnesium	101.5
BC01772	Calcium, Magnesium	10.15
BC01773	Calcium, Magnesium, Sodium	10.15
BC01774	Calcium, Iron, Magnesium, Sodium	20.3
BC01775	Calcium, Iron, Magnesium, Sodium	20.3
BC01776	Calcium, Magnesium, Sodium	20.3
BC01777	Calcium, Iron, Magnesium, Sodium	20.3
BC01778	Calcium, Iron, Magnesium, Sodium	101.5
BC01779	Calcium, Iron, Magnesium, Sodium	101.5
BC01782	Calcium, Iron, Magnesium	10.15
BC01783	Calcium, Iron, Magnesium, Silicon	10.15
BC01784	Calcium, Iron, Magnesium, Silicon	10.15

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

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

Case Narrative

Alabama Power

Total Metals ICPMS

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	717111	WMWGORG_1348
BC01620	717111	WMWGORG_1348
BC01621	717111	WMWGORG_1348
BC01622	717111	WMWGORG_1348
BC01623	717111	WMWGORG_1348
BC01624	717111	WMWGORG_1348
BC01625	717111	WMWGORG_1348
BC01768	717377	WMWGORG_1348
BC01769	717377	WMWGORG_1348
BC01770	717377	WMWGORG_1348
BC01771	717377	WMWGORG_1348
BC01772	717377	WMWGORG_1348
BC01773	717377	WMWGORG_1348
BC01774	717377	WMWGORG_1348
BC01775	717377	WMWGORG_1348
BC01776	717377	WMWGORG_1348
BC01777	717377	WMWGORG_1348
BC01778	717378	WMWGORG_1348
BC01779	717378	WMWGORG_1348
BC01780	717378	WMWGORG_1348
BC01781	717378	WMWGORG_1348
BC01782	717378	WMWGORG_1348
BC01783	717378	WMWGORG_1348
BC01784	717378	WMWGORG_1348

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met except for the following:
    - BC01625 Aluminum & Manganese MS/MSD spike levels were <30% of the sample concentrations.
    - BC01777 Manganese MS/MSD spike level was <30% of the sample concentration.
    - BC01784 Aluminum & Manganese MS/MSD spike levels were <30% of the sample concentrations.
- 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:

Sample ID	Analyte	Dilution Factor
BC01619	Manganese	10.15
BC01620	Manganese	10.15
BC01624	Aluminum & Manganese	92.365
BC01625	Aluminum & Manganese	92.365
BC01768	Manganese	92.365
BC01770	Manganese	92.365
BC01771	Aluminum & Manganese	10.15
BC01772	Aluminum & Manganese	92.365
BC01773	Manganese	10.15
BC01774	Manganese	92.365
BC01775	Manganese	92.365
BC01776	Manganese	10.15
BC01777	Manganese	92.365
BC01778	Manganese	92.365
BC01779	Manganese	92.365
BC01782	Aluminum & Manganese	92.365
BC01783	Aluminum & Manganese	92.365
BC01784	Aluminum & Manganese	92.365

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

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

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	717047	WMWGORG_1348
BC01620	717047	WMWGORG_1348
BC01621	717047	WMWGORG_1348
BC01623	717047	WMWGORG_1348
BC01624	717047	WMWGORG_1348
BC01625	717047	WMWGORG_1348
BC01768	717725	WMWGORG_1348
BC01769	717725	WMWGORG_1348
BC01770	717725	WMWGORG_1348
BC01771	717725	WMWGORG_1348
BC01772	717725	WMWGORG_1348
BC01773	717725	WMWGORG_1348
BC01774	717725	WMWGORG_1348
BC01775	717725	WMWGORG_1348
BC01776	717725	WMWGORG_1348
BC01777	717725	WMWGORG_1348
BC01778	717726	WMWGORG_1348
BC01779	717726	WMWGORG_1348
BC01782	717726	WMWGORG_1348
BC01783	717726	WMWGORG_1348
BC01784	717726	WMWGORG_1348

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met except for the following:
    - BC01625 Aluminum & Manganese MS/MSD spike levels were <30% of the sample concentrations.
    - BC01777 Manganese MS/MSD spike level was <30% of the sample concentration.
    - BC01784 Aluminum & Manganese MS/MSD spike levels were <30% of the sample concentrations.
- 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:

Sample ID	Analyte	Dilution Factor
BC01619	Manganese	10.15
BC01620	Manganese	10.15
BC01624	Aluminum & Manganese	92.365
BC01625	Aluminum & Manganese	92.365
BC01768	Manganese	92.365
BC01770	Manganese	92.365
BC01771	Manganese	10.15
BC01772	Aluminum & Manganese	92.365
BC01773	Manganese	10.15
BC01774	Manganese	92.365
BC01775	Manganese	92.365
BC01776	Manganese	10.15
BC01777	Manganese	92.365
BC01778	Manganese	92.365
BC01779	Manganese	92.365
BC01782	Aluminum & Manganese	92.365
BC01783	Aluminum & Manganese	92.365
BC01784	Aluminum & Manganese	92.365

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

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

Case Narrative

Alabama Power

Mercury

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	716962	WMWGORG_1348
BC01620	716962	WMWGORG_1348
BC01621	716962	WMWGORG_1348
BC01622	716962	WMWGORG_1348
BC01623	716962	WMWGORG_1348
BC01624	716962	WMWGORG_1348
BC01625	716962	WMWGORG_1348
BC01768	716962	WMWGORG_1348
BC01769	716962	WMWGORG_1348
BC01770	716962	WMWGORG_1348
BC01771	716963	WMWGORG_1348
BC01772	716963	WMWGORG_1348
BC01773	716963	WMWGORG_1348
BC01774	716963	WMWGORG_1348
BC01775	716963	WMWGORG_1348
BC01776	716963	WMWGORG_1348
BC01777	716963	WMWGORG_1348
BC01778	716963	WMWGORG_1348
BC01779	716963	WMWGORG_1348
BC01780	716963	WMWGORG_1348
BC01781	716964	WMWGORG_1348
BC01782	716964	WMWGORG_1348
BC01783	716964	WMWGORG_1348
BC01784	716964	WMWGORG_1348

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

7. All samples were analyzed without a dilution.

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

Case Narrative

Alabama Power

TDS

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	716904	WMWGORG_1348
BC01620	716904	WMWGORG_1348
BC01621	716904	WMWGORG_1348
BC01622	716904	WMWGORG_1348
BC01623	716904	WMWGORG_1348
BC01624	716982	WMWGORG_1348
BC01625	716982	WMWGORG_1348
BC01768	716982	WMWGORG_1348
BC01769	716982	WMWGORG_1348
BC01770	716982	WMWGORG_1348
BC01771	716982	WMWGORG_1348
BC01772	716982	WMWGORG_1348
BC01773	716982	WMWGORG_1348
BC01774	716982	WMWGORG_1348
BC01775	716982	WMWGORG_1348
BC01776	716983	WMWGORG_1348
BC01777	716983	WMWGORG_1348
BC01778	716983	WMWGORG_1348
BC01779	716983	WMWGORG_1348
BC01780	716983	WMWGORG_1348
BC01781	716983	WMWGORG_1348
BC01782	716983	WMWGORG_1348
BC01783	716983	WMWGORG_1348
BC01784	716983	WMWGORG_1348

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was ≤10%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
    - BC01622
    - BC01780
    - BC01781

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

Case Narrative

Alabama Power

Anions

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	716999, 716998, & 717661	WMWGORG_1348
BC01620	716999, 716998, & 717661	WMWGORG_1348
BC01621	716999, 716998, & 717661	WMWGORG_1348
BC01622	716999, 716998, & 717661	WMWGORG_1348
BC01623	716999, 716998, & 717661	WMWGORG_1348
BC01624	716999, 716998, & 717661	WMWGORG_1348
BC01625	716999, 716998, & 717661	WMWGORG_1348
BC01768	716999, 717002, & 717661	WMWGORG_1348
BC01769	716999, 717002, & 717661	WMWGORG_1348
BC01770	716999, 717002, & 717661	WMWGORG_1348
BC01771	717000, 717002, & 717662	WMWGORG_1348
BC01772	717000, 717002, & 717662	WMWGORG_1348
BC01773	717000, 717002, & 717662	WMWGORG_1348
BC01774	717000, 717002, & 717662	WMWGORG_1348
BC01775	717000, 717002, & 717662	WMWGORG_1348
BC01776	717000, 717002, & 717662	WMWGORG_1348
BC01777	717000, 717002, & 717662	WMWGORG_1348
BC01778	717000, 717003, & 717662	WMWGORG_1348
BC01779	717000, 717003, & 717662	WMWGORG_1348
BC01780	717000, 717003, & 717662	WMWGORG_1348
BC01781	717001, 717003, & 717663	WMWGORG_1348
BC01782	717001, 717003, & 717663	WMWGORG_1348
BC01783	717001, 717003, & 717663	WMWGORG_1348
BC01784	717001, 717003, & 717663	WMWGORG_1348

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. Sample BC01624, BC01625, BC01772, BC01782, BC01783, & BC01784 results for Fluoride are qualified due to potential matrix interferences.

8. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC01620	Sulfate	20
BC01621	Sulfate	20
BC01623	Sulfate	20
BC01624	Sulfate	40
BC01625	Sulfate	40
BC01768	Chloride & Sulfate	20 & 80
BC01769	Sulfate	10
BC01770	Chloride & Sulfate	40 & 125
BC01771	Chloride & Sulfate	5 & 32
BC01772	Sulfate	20
BC01773	Sulfate	32
BC01774	Sulfate	32
BC01775	Sulfate	32
BC01776	Chloride & Sulfate	5 & 50
BC01777	Chloride & Sulfate	5 & 50
BC01778	Chloride & Sulfate	10 & 80
BC01779	Chloride & Sulfate	10 & 80
BC01782	Sulfate	25
BC01783	Sulfate	32
BC01784	Chloride & Sulfate	20 & 80

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

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

Case Narrative

Alkalinity

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	717127 & 717128	WMWGORG_1348
BC01620	717127 & 717128	WMWGORG_1348
BC01621	717127 & 717128	WMWGORG_1348
BC01623	717127 & 717128	WMWGORG_1348
BC01624	717127 & 717128	WMWGORG_1348
BC01625	717127 & 717128	WMWGORG_1348
BC01768	717127 & 717128	WMWGORG_1348
BC01769	717127 & 717128	WMWGORG_1348
BC01770	717127 & 717128	WMWGORG_1348
BC01771	717127 & 717128	WMWGORG_1348
BC01772	717127 & 717128	WMWGORG_1348
BC01773	717127 & 717128	WMWGORG_1348
BC01774	717346 & 717347	WMWGORG_1348
BC01775	717346 & 717347	WMWGORG_1348
BC01776	717346 & 717347	WMWGORG_1348
BC01777	717346 & 717347	WMWGORG_1348
BC01778	717346 & 717347	WMWGORG_1348
BC01779	717346 & 717347	WMWGORG_1348
BC01782	717346 & 717347	WMWGORG_1348
BC01783	717346 & 717347	WMWGORG_1348
BC01784	717346 & 717347	WMWGORG_1348

4. All of the above samples were prepared and analyzed by Standard Method 2320B, except for the following:
   - Samples BC01624, BC01625, BC01772, BC01782, BC01783, and BC01784 were not performed for Alkalinity due to the initial pH readings were below the titration end point of 4.5 SU.
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.

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

Case Narrative

Alabama Power

Nitrate/Nitrite

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	717153	WMWGORG_1348
BC01620	717153	WMWGORG_1348
BC01621	717153	WMWGORG_1348
BC01622	717153	WMWGORG_1348
BC01623	717153	WMWGORG_1348
BC01624	717153	WMWGORG_1348
BC01625	717153	WMWGORG_1348
BC01768	717153	WMWGORG_1348
BC01769	717153	WMWGORG_1348
BC01770	717153	WMWGORG_1348
BC01771	717154	WMWGORG_1348
BC01772	717154	WMWGORG_1348
BC01773	717154	WMWGORG_1348
BC01774	717154	WMWGORG_1348
BC01775	717154	WMWGORG_1348
BC01776	717154	WMWGORG_1348
BC01777	717154	WMWGORG_1348
BC01778	717154	WMWGORG_1348
BC01779	717154	WMWGORG_1348
BC01780	717154	WMWGORG_1348
BC01781	717155	WMWGORG_1348
BC01782	717155	WMWGORG_1348
BC01783	717155	WMWGORG_1348
BC01784	717155	WMWGORG_1348

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

General Quality Control Procedures:

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

EPA 353.2 Specific QC:

- Prior to sample analysis, Cadmium coil reduction efficiency check met criteria.
- Matrix Specific QC:
    - A sample duplicate was run and criteria for precision was met.
    - A matrix spike was run and criteria for accuracy was met, except for the following:
        - BC01770 MS recovery was outside of the specification limit.
        - BC01784 MS recovery was outside of the specification limit but passes using values below the detection limit.

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

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

Case Narrative

Alabama Power

Total Organic Carbon

Gorgas Gypsum

WMWGORG_1348

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.

Sample ID	Batch ID	Project ID
BC01619	717210	WMWGORG_1348
BC01620	717210	WMWGORG_1348
BC01621	717210	WMWGORG_1348
BC01622	717210	WMWGORG_1348
BC01623	717210	WMWGORG_1348
BC01624	717210	WMWGORG_1348
BC01625	717210	WMWGORG_1348
BC01768	717210	WMWGORG_1348
BC01769	717210	WMWGORG_1348
BC01770	717210	WMWGORG_1348
BC01771	717211	WMWGORG_1348
BC01772	717211	WMWGORG_1348
BC01773	717211	WMWGORG_1348
BC01774	717211	WMWGORG_1348
BC01775	717211	WMWGORG_1348
BC01776	717211	WMWGORG_1348
BC01777	717211	WMWGORG_1348
BC01778	717211	WMWGORG_1348
BC01779	717211	WMWGORG_1348
BC01780	717211	WMWGORG_1348
BC01781	717212	WMWGORG_1348
BC01782	717212	WMWGORG_1348
BC01783	717212	WMWGORG_1348
BC01784	717212	WMWGORG_1348

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

7. All samples were analyzed without a dilution factor.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-21

Location Code: WMWGORG
Collected: 1/25/22 10:38
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01619

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:57		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 10:57		1.015	39.0	mg/L	0.070035	0.406	
* Iron, Total	1/27/22 10:03	1/28/22 10:57		1.015	3.63	mg/L	0.008120	0.0406	
* Lithium, Total	1/27/22 10:03	1/28/22 10:57		1.015	0.0175	mg/L	0.007105	0.01999956	J
* Magnesium, Total	1/27/22 10:03	1/28/22 10:57		1.015	37.7	mg/L	0.021315	0.406	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:57		1	18.8	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:57		1.015	8.79	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 11:31		20.3	95.8	mg/L	0.609	8.12	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:39		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	1/27/22 09:52	1/28/22 09:39		1.015	40.3	mg/L	0.070035	0.406	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:39		1.015	3.39	mg/L	0.008120	0.0406	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:39		1.015	0.0171	mg/L	0.007105	0.01999956	J
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 09:39		1.015	37.8	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:39		1	18.7	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:39		1.015	8.73	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 10:14		20.3	92.3	mg/L	0.609	8.12	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 15:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 15:58		1.015	0.301	mg/L	0.004060	0.01015	
* Arsenic, Total	1/27/22 09:55	1/27/22 15:58		1.015	0.00262	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 15:58		1.015	0.151	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 15:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 15:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 15:58		1.015	0.000585	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 15:58		1.015	0.00257	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 15:58		1.015	0.000251	mg/L	0.000068	0.000203	
* Manganese, Total	1/27/22 09:55	2/1/22 12:36		10.15	1.60	mg/L	0.000680	0.00203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 15:58		1.015	0.00297	mg/L	0.000068	0.000203	
* Potassium, Total	1/27/22 09:55	1/27/22 15:58		1.015	2.40	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-21

Location Code: WMWGORG
Collected: 1/25/22 10:38
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01619

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 15:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 15:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	0.00256	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	0.143	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	0.00247	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	2/1/22 11:53		10.15	1.58	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	0.00294	mg/L	0.000068	0.000203	
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	2.38	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 19:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:26	2/1/22 14:26		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	427	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	466	mg/L		50	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	426	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.50	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 12:31	2/1/22 12:31		1	3.67	mg/L	1.00	2	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-21

Location Code: WMWGORG
Collected: 1/25/22 10:38
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01619

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 09:59	1/28/22 09:59		1	12.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 13:38	1/27/22 13:38		1	0.354	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:20	2/7/22 14:20		1	32.8	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/25/22 10:35	1/25/22 10:35			797.36	uS/cm			FA
pH	1/25/22 10:35	1/25/22 10:35			6.94	SU			FA
Temperature	1/25/22 10:35	1/25/22 10:35			16.15	C			FA
Turbidity	1/25/22 10:35	1/25/22 10:35			0.89	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 10:38
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-21

Laboratory ID Number: BC01619

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	11.7	12.3	0.104	0.0850 to 0.115	200	70.0 to 130	5.00	20.0
BC01625	Aluminum, Total	mg/L	0.000849	0.00880	0.100	12.0	12.0	0.104	0.0850 to 0.115	200	70.0 to 130	0.00	20.0
BC01625	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0998	0.0994	0.0977	0.0850 to 0.115	99.8	70.0 to 130	0.402	20.0
BC01625	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0989	0.108	0.0957	0.0850 to 0.115	98.9	70.0 to 130	8.80	20.0
BC01625	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.105	0.108	0.105	0.0850 to 0.115	104	70.0 to 130	2.82	20.0
BC01625	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	101	70.0 to 130	6.64	20.0
BC01625	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.109	0.109	0.0997	0.0850 to 0.115	97.3	70.0 to 130	0.00	20.0
BC01625	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.104	0.113	0.0953	0.0850 to 0.115	91.0	70.0 to 130	8.29	20.0
BC01625	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0967	0.0938	0.0983	0.0850 to 0.115	89.5	70.0 to 130	3.04	20.0
BC01625	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0945	0.0944	0.0945	0.0850 to 0.115	87.6	70.0 to 130	0.106	20.0
BC01625	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.11	1.09	0.998	0.850 to 1.15	104	70.0 to 130	1.82	20.0
BC01625	Boron, Total	mg/L	-0.000624	0.0650	1.00	1.10	1.08	0.987	0.850 to 1.15	104	70.0 to 130	1.83	20.0
BC01625	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.113	0.111	0.105	0.0850 to 0.115	110	70.0 to 130	1.79	20.0
BC01625	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.109	0.114	0.107	0.0850 to 0.115	106	70.0 to 130	4.48	20.0
BC01625	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	131	130	4.87	4.25 to 5.75	100	70.0 to 130	0.766	20.0
BC01625	Calcium, Total	mg/L	-0.0181	0.152	5.00	126	124	4.80	4.25 to 5.75	60.0	70.0 to 130	1.60	20.0
BC01625	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.0992	0.101	0.105	0.0850 to 0.115	98.9	70.0 to 130	1.80	20.0
BC01625	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.0978	0.106	0.104	0.0850 to 0.115	97.4	70.0 to 130	8.05	20.0
BC01625	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.407	0.414	0.103	0.0850 to 0.115	92.0	70.0 to 130	1.71	20.0
BC01625	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.407	0.443	0.101	0.0850 to 0.115	91.0	70.0 to 130	8.47	20.0
BC01625	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.806	0.790	0.201	0.170 to 0.230	102	70.0 to 130	2.01	20.0
BC01625	Iron, Total	mg/L	-0.000334	0.0176	0.2	1.13	1.12	0.197	0.170 to 0.230	104	70.0 to 130	0.889	20.0
BC01625	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.113	0.112	0.110	0.0850 to 0.115	108	70.0 to 130	0.889	20.0
BC01625	Lead, Total	mg/L	0.000013	0.000147	0.100	0.112	0.111	0.115	0.0850 to 0.115	107	70.0 to 130	0.897	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 10:38
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-21

Laboratory ID Number: BC01619

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.616	0.588	0.194	0.170 to 0.230	108	70.0 to 130	4.65	20.0
BC01625	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.606	0.598	0.200	0.170 to 0.230	103	70.0 to 130	1.33	20.0
BC01625	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	137	136	5.01	4.25 to 5.75	120	70.0 to 130	0.733	20.0
BC01625	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	134	131	4.99	4.25 to 5.75	100	70.0 to 130	2.26	20.0
BC01625	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	13.5	13.9	0.102	0.0850 to 0.115	0.00	70.0 to 130	2.92	20.0
BC01625	Manganese, Total	mg/L	0.0000277	0.000147	0.100	14.0	13.9	0.102	0.0850 to 0.115	200	70.0 to 130	0.717	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01625	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.103	0.0998	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC01625	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0971	0.105	0.101	0.0850 to 0.115	97.1	70.0 to 130	7.82	20.0
BC01625	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	14.4	14.4	9.82	8.50 to 11.5	94.8	70.0 to 130	0.00	20.0
BC01625	Potassium, Total	mg/L	-0.0160	0.367	10.0	14.5	15.6	9.85	8.50 to 11.5	97.0	70.0 to 130	7.31	20.0
BC01625	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.0923	0.0917	0.108	0.0850 to 0.115	89.1	70.0 to 130	0.652	20.0
BC01625	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.0884	0.0920	0.107	0.0850 to 0.115	85.3	70.0 to 130	3.99	20.0
BC01625	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	21.2	21.0	1.01	0.850 to 1.15	140	70.0 to 130	0.948	20.0
BC01625	Silicon, Total	mg/L	0.000194	0.0440	1.00	20.5	20.7	1.01	0.850 to 1.15	80.0	70.0 to 130	0.971	20.0
BC01625	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	32.8	31.5	4.84	4.25 to 5.75	108	70.0 to 130	4.04	20.0
BC01625	Sodium, Total	mg/L	0.00428	0.0660	5.00	32.4	31.9	4.97	4.25 to 5.75	100	70.0 to 130	1.56	20.0
BC01625	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC01625	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.101	0.105	0.108	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/25/22 10:38
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-21

Laboratory ID Number: BC01619

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01623	Fluoride	mg/L	0.00166	0.100	2.50	2.70	0.204	2.50	2.25 to 2.75	100	80.0 to 120	5.03	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01623	Solids, Dissolved	mg/L	0.0000	25.0			888	50.0	40.0 to 60.0			0.338	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-22

Location Code: WMWGORG
Collected: 1/25/22 11:53
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01620

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 10:59		1.015	0.0754	mg/L	0.030000	0.1015	J
* Calcium, Total	1/27/22 10:03	1/28/22 11:33		20.3	74.6	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 11:33		20.3	51.2	mg/L	0.1624	0.812	
* Lithium, Total	1/27/22 10:03	1/28/22 10:59		1.015	0.0718	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 10:59		1.015	38.0	mg/L	0.021315	0.406	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 10:59		1	21.3	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 10:59		1.015	9.97	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 10:59		1.015	37.1	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:41		1.015	0.0765	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:16		20.3	71.9	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 10:16		20.3	50.6	mg/L	0.1624	0.812	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:41		1.015	0.0684	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 09:41		1.015	38.0	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:41		1	20.9	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:41		1.015	9.77	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 09:41		1.015	35.5	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 16:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 16:02		1.015	0.0445	mg/L	0.004060	0.01015	
* Arsenic, Total	1/27/22 09:55	1/27/22 16:02		1.015	0.0446	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 16:02		1.015	0.0176	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 16:02		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 16:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 16:02		1.015	0.000303	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 16:02		1.015	0.00294	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 16:02		1.015	0.0000904	mg/L	0.000068	0.000203	J
* Manganese, Total	1/27/22 09:55	2/1/22 12:40		10.15	2.25	mg/L	0.000680	0.00203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 16:02		1.015	0.000931	mg/L	0.000068	0.000203	
* Potassium, Total	1/27/22 09:55	1/27/22 16:02		1.015	6.55	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-22

Location Code: WMWGORG
Collected: 1/25/22 11:53
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01620

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 16:02		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 16:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	0.00680	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	0.0431	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	0.0164	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	0.000204	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	0.00311	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	2/1/22 11:57		10.15	2.29	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	0.000897	mg/L	0.000068	0.000203	
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	6.63	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 19:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:28	2/1/22 14:28		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	79.1	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	688	mg/L		50	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	79.1	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.02	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 12:51	2/1/22 12:51		1	1.46	mg/L	1.00	2	J

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-22

Location Code: WMWGORG
Collected: 1/25/22 11:53
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01620

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:00	1/28/22 10:00		1	5.76	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 13:39	1/27/22 13:39		1	0.169	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:22	2/7/22 14:22		20	440	mg/L	10.00	20	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/25/22 11:49	1/25/22 11:49			921.21	uS/cm			FA
pH	1/25/22 11:49	1/25/22 11:49			5.99	SU			FA
Temperature	1/25/22 11:49	1/25/22 11:49			17.45	C			FA
Turbidity	1/25/22 11:49	1/25/22 11:49			7.59	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 11:53
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-22

Laboratory ID Number: BC01620

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	11.7	12.3	0.104	0.0850 to 0.115	200	70.0 to 130	5.00	20.0
BC01625	Aluminum, Total	mg/L	0.000849	0.00880	0.100	12.0	12.0	0.104	0.0850 to 0.115	200	70.0 to 130	0.00	20.0
BC01625	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0998	0.0994	0.0977	0.0850 to 0.115	99.8	70.0 to 130	0.402	20.0
BC01625	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0989	0.108	0.0957	0.0850 to 0.115	98.9	70.0 to 130	8.80	20.0
BC01625	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.105	0.108	0.105	0.0850 to 0.115	104	70.0 to 130	2.82	20.0
BC01625	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	101	70.0 to 130	6.64	20.0
BC01625	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.109	0.109	0.0997	0.0850 to 0.115	97.3	70.0 to 130	0.00	20.0
BC01625	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.104	0.113	0.0953	0.0850 to 0.115	91.0	70.0 to 130	8.29	20.0
BC01625	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0967	0.0938	0.0983	0.0850 to 0.115	89.5	70.0 to 130	3.04	20.0
BC01625	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0945	0.0944	0.0945	0.0850 to 0.115	87.6	70.0 to 130	0.106	20.0
BC01625	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.11	1.09	0.998	0.850 to 1.15	104	70.0 to 130	1.82	20.0
BC01625	Boron, Total	mg/L	-0.000624	0.0650	1.00	1.10	1.08	0.987	0.850 to 1.15	104	70.0 to 130	1.83	20.0
BC01625	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.113	0.111	0.105	0.0850 to 0.115	110	70.0 to 130	1.79	20.0
BC01625	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.109	0.114	0.107	0.0850 to 0.115	106	70.0 to 130	4.48	20.0
BC01625	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	131	130	4.87	4.25 to 5.75	100	70.0 to 130	0.766	20.0
BC01625	Calcium, Total	mg/L	-0.0181	0.152	5.00	126	124	4.80	4.25 to 5.75	60.0	70.0 to 130	1.60	20.0
BC01625	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.0992	0.101	0.105	0.0850 to 0.115	98.9	70.0 to 130	1.80	20.0
BC01625	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.0978	0.106	0.104	0.0850 to 0.115	97.4	70.0 to 130	8.05	20.0
BC01625	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.407	0.414	0.103	0.0850 to 0.115	92.0	70.0 to 130	1.71	20.0
BC01625	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.407	0.443	0.101	0.0850 to 0.115	91.0	70.0 to 130	8.47	20.0
BC01625	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.806	0.790	0.201	0.170 to 0.230	102	70.0 to 130	2.01	20.0
BC01625	Iron, Total	mg/L	-0.000334	0.0176	0.2	1.13	1.12	0.197	0.170 to 0.230	104	70.0 to 130	0.889	20.0
BC01625	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.113	0.112	0.110	0.0850 to 0.115	108	70.0 to 130	0.889	20.0
BC01625	Lead, Total	mg/L	0.000013	0.000147	0.100	0.112	0.111	0.115	0.0850 to 0.115	107	70.0 to 130	0.897	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 11:53
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-22

Laboratory ID Number: BC01620

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.616	0.588	0.194	0.170 to 0.230	108	70.0 to 130	4.65	20.0
BC01625	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.606	0.598	0.200	0.170 to 0.230	103	70.0 to 130	1.33	20.0
BC01625	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	137	136	5.01	4.25 to 5.75	120	70.0 to 130	0.733	20.0
BC01625	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	134	131	4.99	4.25 to 5.75	100	70.0 to 130	2.26	20.0
BC01625	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	13.5	13.9	0.102	0.0850 to 0.115	0.00	70.0 to 130	2.92	20.0
BC01625	Manganese, Total	mg/L	0.0000277	0.000147	0.100	14.0	13.9	0.102	0.0850 to 0.115	200	70.0 to 130	0.717	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01625	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.103	0.0998	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC01625	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0971	0.105	0.101	0.0850 to 0.115	97.1	70.0 to 130	7.82	20.0
BC01625	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	14.4	14.4	9.82	8.50 to 11.5	94.8	70.0 to 130	0.00	20.0
BC01625	Potassium, Total	mg/L	-0.0160	0.367	10.0	14.5	15.6	9.85	8.50 to 11.5	97.0	70.0 to 130	7.31	20.0
BC01625	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.0923	0.0917	0.108	0.0850 to 0.115	89.1	70.0 to 130	0.652	20.0
BC01625	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.0884	0.0920	0.107	0.0850 to 0.115	85.3	70.0 to 130	3.99	20.0
BC01625	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	21.2	21.0	1.01	0.850 to 1.15	140	70.0 to 130	0.948	20.0
BC01625	Silicon, Total	mg/L	0.000194	0.0440	1.00	20.5	20.7	1.01	0.850 to 1.15	80.0	70.0 to 130	0.971	20.0
BC01625	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	32.8	31.5	4.84	4.25 to 5.75	108	70.0 to 130	4.04	20.0
BC01625	Sodium, Total	mg/L	0.00428	0.0660	5.00	32.4	31.9	4.97	4.25 to 5.75	100	70.0 to 130	1.56	20.0
BC01625	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC01625	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.101	0.105	0.108	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/25/22 11:53
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-22

Laboratory ID Number: BC01620

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01623	Fluoride	mg/L	0.00166	0.100	2.50	2.70	0.204	2.50	2.25 to 2.75	100	80.0 to 120	5.03	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01623	Solids, Dissolved	mg/L	0.0000	25.0			888	50.0	40.0 to 60.0			0.338	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-20

Location Code: WMWGORG
Collected: 1/25/22 12:55
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01621

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 11:01		1.015	0.0765	mg/L	0.030000	0.1015	J
* Calcium, Total	1/27/22 10:03	1/28/22 11:35		10.15	96.7	mg/L	0.70035	4.06	
* Iron, Total	1/27/22 10:03	1/28/22 11:35		10.15	5.37	mg/L	0.08120	0.406	
* Lithium, Total	1/27/22 10:03	1/28/22 11:01		1.015	0.0884	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:35		10.15	53.6	mg/L	0.21315	4.06	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 11:01		1	19.7	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 11:01		1.015	9.21	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 11:35		10.15	107	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:42		1.015	0.0781	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:18		10.15	92.4	mg/L	0.70035	4.06	
* Iron, Dissolved	1/27/22 09:52	1/28/22 10:18		10.15	5.01	mg/L	0.08120	0.406	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:42		1.015	0.0884	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 10:18		10.15	51.5	mg/L	0.21315	4.06	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:42		1	19.3	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:42		1.015	9.04	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 10:18		10.15	106	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 16:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.0655	mg/L	0.004060	0.01015	
* Arsenic, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.00223	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.0201	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 16:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 16:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.000256	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.00273	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.000143	mg/L	0.000068	0.000203	J
* Manganese, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.304	mg/L	0.000068	0.000203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.000973	mg/L	0.000068	0.000203	
* Potassium, Total	1/27/22 09:55	1/27/22 16:06		1.015	4.87	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-20

Location Code: WMWGORG
Collected: 1/25/22 12:55
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01621

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.00273	mg/L	0.000508	0.001015	
* Thallium, Total	1/27/22 09:55	1/27/22 16:06		1.015	0.000208	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	0.00200	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	0.0163	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	0.00279	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	0.303	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	0.00101	mg/L	0.000068	0.000203	
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	4.80	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	0.00308	mg/L	0.000508	0.001015	
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:42		1.015	0.000198	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 19:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:30	2/1/22 14:30		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	212	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	840	mg/L		50	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	212	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.07	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 13:09	2/1/22 13:09		1	1.71	mg/L	1.00	2	J

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-20

Location Code: WMWGORG
Collected: 1/25/22 12:55
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01621

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/28/22 10:01	1/28/22 10:01		1	13.0	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/27/22 13:41	1/27/22 13:41		1	0.191	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 14:23	2/7/22 14:23		20	437	mg/L	10.00	20	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	1/25/22 12:52	1/25/22 12:52			1181.7	uS/cm			FA
pH	1/25/22 12:52	1/25/22 12:52			6.33	SU			FA
Temperature	1/25/22 12:52	1/25/22 12:52			17.62	C			FA
Turbidity	1/25/22 12:52	1/25/22 12:52			4.6	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 12:55
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-20

Laboratory ID Number: BC01621

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	11.7	12.3	0.104	0.0850 to 0.115	200	70.0 to 130	5.00	20.0
BC01625	Aluminum, Total	mg/L	0.000849	0.00880	0.100	12.0	12.0	0.104	0.0850 to 0.115	200	70.0 to 130	0.00	20.0
BC01625	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0998	0.0994	0.0977	0.0850 to 0.115	99.8	70.0 to 130	0.402	20.0
BC01625	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0989	0.108	0.0957	0.0850 to 0.115	98.9	70.0 to 130	8.80	20.0
BC01625	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.105	0.108	0.105	0.0850 to 0.115	104	70.0 to 130	2.82	20.0
BC01625	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	101	70.0 to 130	6.64	20.0
BC01625	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.109	0.109	0.0997	0.0850 to 0.115	97.3	70.0 to 130	0.00	20.0
BC01625	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.104	0.113	0.0953	0.0850 to 0.115	91.0	70.0 to 130	8.29	20.0
BC01625	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0967	0.0938	0.0983	0.0850 to 0.115	89.5	70.0 to 130	3.04	20.0
BC01625	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0945	0.0944	0.0945	0.0850 to 0.115	87.6	70.0 to 130	0.106	20.0
BC01625	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.11	1.09	0.998	0.850 to 1.15	104	70.0 to 130	1.82	20.0
BC01625	Boron, Total	mg/L	-0.000624	0.0650	1.00	1.10	1.08	0.987	0.850 to 1.15	104	70.0 to 130	1.83	20.0
BC01625	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.113	0.111	0.105	0.0850 to 0.115	110	70.0 to 130	1.79	20.0
BC01625	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.109	0.114	0.107	0.0850 to 0.115	106	70.0 to 130	4.48	20.0
BC01625	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	131	130	4.87	4.25 to 5.75	100	70.0 to 130	0.766	20.0
BC01625	Calcium, Total	mg/L	-0.0181	0.152	5.00	126	124	4.80	4.25 to 5.75	60.0	70.0 to 130	1.60	20.0
BC01625	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.0992	0.101	0.105	0.0850 to 0.115	98.9	70.0 to 130	1.80	20.0
BC01625	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.0978	0.106	0.104	0.0850 to 0.115	97.4	70.0 to 130	8.05	20.0
BC01625	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.407	0.414	0.103	0.0850 to 0.115	92.0	70.0 to 130	1.71	20.0
BC01625	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.407	0.443	0.101	0.0850 to 0.115	91.0	70.0 to 130	8.47	20.0
BC01625	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.806	0.790	0.201	0.170 to 0.230	102	70.0 to 130	2.01	20.0
BC01625	Iron, Total	mg/L	-0.000334	0.0176	0.2	1.13	1.12	0.197	0.170 to 0.230	104	70.0 to 130	0.889	20.0
BC01625	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.113	0.112	0.110	0.0850 to 0.115	108	70.0 to 130	0.889	20.0
BC01625	Lead, Total	mg/L	0.000013	0.000147	0.100	0.112	0.111	0.115	0.0850 to 0.115	107	70.0 to 130	0.897	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 12:55
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-20

Laboratory ID Number: BC01621

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.616	0.588	0.194	0.170 to 0.230	108	70.0 to 130	4.65	20.0
BC01625	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.606	0.598	0.200	0.170 to 0.230	103	70.0 to 130	1.33	20.0
BC01625	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	137	136	5.01	4.25 to 5.75	120	70.0 to 130	0.733	20.0
BC01625	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	134	131	4.99	4.25 to 5.75	100	70.0 to 130	2.26	20.0
BC01625	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	13.5	13.9	0.102	0.0850 to 0.115	0.00	70.0 to 130	2.92	20.0
BC01625	Manganese, Total	mg/L	0.0000277	0.000147	0.100	14.0	13.9	0.102	0.0850 to 0.115	200	70.0 to 130	0.717	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01625	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.103	0.0998	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC01625	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0971	0.105	0.101	0.0850 to 0.115	97.1	70.0 to 130	7.82	20.0
BC01625	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	14.4	14.4	9.82	8.50 to 11.5	94.8	70.0 to 130	0.00	20.0
BC01625	Potassium, Total	mg/L	-0.0160	0.367	10.0	14.5	15.6	9.85	8.50 to 11.5	97.0	70.0 to 130	7.31	20.0
BC01625	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.0923	0.0917	0.108	0.0850 to 0.115	89.1	70.0 to 130	0.652	20.0
BC01625	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.0884	0.0920	0.107	0.0850 to 0.115	85.3	70.0 to 130	3.99	20.0
BC01625	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	21.2	21.0	1.01	0.850 to 1.15	140	70.0 to 130	0.948	20.0
BC01625	Silicon, Total	mg/L	0.000194	0.0440	1.00	20.5	20.7	1.01	0.850 to 1.15	80.0	70.0 to 130	0.971	20.0
BC01625	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	32.8	31.5	4.84	4.25 to 5.75	108	70.0 to 130	4.04	20.0
BC01625	Sodium, Total	mg/L	0.00428	0.0660	5.00	32.4	31.9	4.97	4.25 to 5.75	100	70.0 to 130	1.56	20.0
BC01625	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC01625	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.101	0.105	0.108	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/25/22 12:55
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-20

Laboratory ID Number: BC01621

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01623	Fluoride	mg/L	0.00166	0.100	2.50	2.70	0.204	2.50	2.25 to 2.75	100	80.0 to 120	5.03	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01623	Solids, Dissolved	mg/L	0.0000	25.0			888	50.0	40.0 to 60.0			0.338	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Field Blank-1

Location Code: WMWGORGFB
Collected: 1/25/22 13:25
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01622

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 11:03		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	1/27/22 10:03	1/28/22 11:03		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	1/27/22 10:03	1/28/22 11:03		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	1/27/22 10:03	1/28/22 11:03		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	1/27/22 10:03	1/28/22 11:03		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	1/27/22 10:03	1/28/22 11:03		1	Not Detected	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 11:03		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	1/27/22 10:03	1/28/22 11:03		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	1/27/22 16:09		1.015	0.000116	mg/L	0.000068	0.000203	J
* Molybdenum, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 16:09		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 19:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:31	2/1/22 14:31		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Field Blank-1

Location Code: WMWGORGFB
Collected: 1/25/22 13:25
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01622

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	2/1/22 13:26	2/1/22 13:26		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/28/22 10:02	1/28/22 10:02		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/27/22 13:42	1/27/22 13:42		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 14:24	2/7/22 14:24		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORGFB
Sample Date: 1/25/22 13:25
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum Field Blank-1

Laboratory ID Number: BC01622

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Aluminum, Total	mg/L	0.000849	0.00880	0.100	12.0	12.0	0.104	0.0850 to 0.115	200	70.0 to 130	0.00	20.0
BC01625	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0989	0.108	0.0957	0.0850 to 0.115	98.9	70.0 to 130	8.80	20.0
BC01625	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	101	70.0 to 130	6.64	20.0
BC01625	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.104	0.113	0.0953	0.0850 to 0.115	91.0	70.0 to 130	8.29	20.0
BC01625	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0945	0.0944	0.0945	0.0850 to 0.115	87.6	70.0 to 130	0.106	20.0
BC01625	Boron, Total	mg/L	-0.000624	0.0650	1.00	1.10	1.08	0.987	0.850 to 1.15	104	70.0 to 130	1.83	20.0
BC01625	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.109	0.114	0.107	0.0850 to 0.115	106	70.0 to 130	4.48	20.0
BC01625	Calcium, Total	mg/L	-0.0181	0.152	5.00	126	124	4.80	4.25 to 5.75	60.0	70.0 to 130	1.60	20.0
BC01625	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.0978	0.106	0.104	0.0850 to 0.115	97.4	70.0 to 130	8.05	20.0
BC01625	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.407	0.443	0.101	0.0850 to 0.115	91.0	70.0 to 130	8.47	20.0
BC01625	Iron, Total	mg/L	-0.000334	0.0176	0.2	1.13	1.12	0.197	0.170 to 0.230	104	70.0 to 130	0.889	20.0
BC01625	Lead, Total	mg/L	0.000013	0.000147	0.100	0.112	0.111	0.115	0.0850 to 0.115	107	70.0 to 130	0.897	20.0
BC01625	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.606	0.598	0.200	0.170 to 0.230	103	70.0 to 130	1.33	20.0
BC01625	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	134	131	4.99	4.25 to 5.75	100	70.0 to 130	2.26	20.0
BC01625	Manganese, Total	mg/L	0.0000277	0.000147	0.100	14.0	13.9	0.102	0.0850 to 0.115	200	70.0 to 130	0.717	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01625	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0971	0.105	0.101	0.0850 to 0.115	97.1	70.0 to 130	7.82	20.0
BC01625	Potassium, Total	mg/L	-0.0160	0.367	10.0	14.5	15.6	9.85	8.50 to 11.5	97.0	70.0 to 130	7.31	20.0
BC01625	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.0884	0.0920	0.107	0.0850 to 0.115	85.3	70.0 to 130	3.99	20.0
BC01625	Silicon, Total	mg/L	0.000194	0.0440	1.00	20.5	20.7	1.01	0.850 to 1.15	80.0	70.0 to 130	0.971	20.0
BC01625	Sodium, Total	mg/L	0.00428	0.0660	5.00	32.4	31.9	4.97	4.25 to 5.75	100	70.0 to 130	1.56	20.0
BC01625	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.101	0.105	0.108	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	80.0 to 120	0.00	20.0

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORGFB
Sample Date: 1/25/22 13:25
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum Field Blank-1

Laboratory ID Number: BC01622

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01623	Fluoride	mg/L	0.00166	0.100	2.50	2.70	0.204	2.50	2.25 to 2.75	100	80.0 to 120	5.03	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01623	Solids, Dissolved	mg/L	0.0000	25.0			888	50.0	40.0 to 60.0			0.338	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-19

Location Code: WMWGORG
Collected: 1/25/22 14:45
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01623

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 11:05		1.015	0.0561	mg/L	0.030000	0.1015	J
* Calcium, Total	1/27/22 10:03	1/28/22 11:37		20.3	117	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 11:05		1.015	2.82	mg/L	0.008120	0.0406	
* Lithium, Total	1/27/22 10:03	1/28/22 11:05		1.015	0.0782	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:37		20.3	53.0	mg/L	0.4263	8.12	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 11:05		1	21.6	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 11:05		1.015	10.1	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 11:37		20.3	125	mg/L	0.609	8.12	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:44		1.015	0.0570	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:20		20.3	124	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:44		1.015	2.82	mg/L	0.008120	0.0406	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:44		1.015	0.0791	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 10:20		20.3	56.0	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:44		1	22.3	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:44		1.015	10.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 10:20		20.3	132	mg/L	0.609	8.12	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 16:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	1/27/22 16:13		1.015	0.00580	mg/L	0.004060	0.01015	J
* Arsenic, Total	1/27/22 09:55	1/27/22 16:13		1.015	0.00162	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 16:13		1.015	0.0373	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 16:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	1/27/22 09:55	1/27/22 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	1/27/22 09:55	1/27/22 16:13		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	1/27/22 09:55	1/27/22 16:13		1.015	0.000689	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	1/27/22 09:55	1/27/22 16:13		1.015	0.875	mg/L	0.000068	0.000203	
* Molybdenum, Total	1/27/22 09:55	1/27/22 16:13		1.015	0.000680	mg/L	0.000068	0.000203	
* Potassium, Total	1/27/22 09:55	1/27/22 16:13		1.015	4.11	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-19

Location Code: WMWGORG
Collected: 1/25/22 14:45
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01623

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 16:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	1/27/22 09:55	1/27/22 16:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	0.00160	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	0.0330	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	0.000205	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	0.000715	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	0.868	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	0.000717	mg/L	0.000068	0.000203	
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	4.19	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 19:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:33	2/1/22 14:33		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	431	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/27/22 11:00	1/28/22 13:33		1	885	mg/L		75.8	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	431	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.23	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 13:40	2/1/22 13:40		1	1.51	mg/L	1.00	2	J

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-19

Location Code: WMWGORG
Collected: 1/25/22 14:45
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01623

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:03	1/28/22 10:03		1	13.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 13:43	1/27/22 13:43		1	0.194	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:25	2/7/22 14:25		20	344	mg/L	10.00	20	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/25/22 14:42	1/25/22 14:42			1292.60	uS/cm			FA
pH	1/25/22 14:42	1/25/22 14:42			6.68	SU			FA
Temperature	1/25/22 14:42	1/25/22 14:42			17.58	C			FA
Turbidity	1/25/22 14:42	1/25/22 14:42			1.05	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 14:45
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-19

Laboratory ID Number: BC01623

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	11.7	12.3	0.104	0.0850 to 0.115	200	70.0 to 130	5.00	20.0
BC01625	Aluminum, Total	mg/L	0.000849	0.00880	0.100	12.0	12.0	0.104	0.0850 to 0.115	200	70.0 to 130	0.00	20.0
BC01625	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0998	0.0994	0.0977	0.0850 to 0.115	99.8	70.0 to 130	0.402	20.0
BC01625	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0989	0.108	0.0957	0.0850 to 0.115	98.9	70.0 to 130	8.80	20.0
BC01625	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.105	0.108	0.105	0.0850 to 0.115	104	70.0 to 130	2.82	20.0
BC01625	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	101	70.0 to 130	6.64	20.0
BC01625	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.109	0.109	0.0997	0.0850 to 0.115	97.3	70.0 to 130	0.00	20.0
BC01625	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.104	0.113	0.0953	0.0850 to 0.115	91.0	70.0 to 130	8.29	20.0
BC01625	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0967	0.0938	0.0983	0.0850 to 0.115	89.5	70.0 to 130	3.04	20.0
BC01625	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0945	0.0944	0.0945	0.0850 to 0.115	87.6	70.0 to 130	0.106	20.0
BC01625	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.11	1.09	0.998	0.850 to 1.15	104	70.0 to 130	1.82	20.0
BC01625	Boron, Total	mg/L	-0.000624	0.0650	1.00	1.10	1.08	0.987	0.850 to 1.15	104	70.0 to 130	1.83	20.0
BC01625	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.113	0.111	0.105	0.0850 to 0.115	110	70.0 to 130	1.79	20.0
BC01625	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.109	0.114	0.107	0.0850 to 0.115	106	70.0 to 130	4.48	20.0
BC01625	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	131	130	4.87	4.25 to 5.75	100	70.0 to 130	0.766	20.0
BC01625	Calcium, Total	mg/L	-0.0181	0.152	5.00	126	124	4.80	4.25 to 5.75	60.0	70.0 to 130	1.60	20.0
BC01625	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.0992	0.101	0.105	0.0850 to 0.115	98.9	70.0 to 130	1.80	20.0
BC01625	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.0978	0.106	0.104	0.0850 to 0.115	97.4	70.0 to 130	8.05	20.0
BC01625	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.407	0.414	0.103	0.0850 to 0.115	92.0	70.0 to 130	1.71	20.0
BC01625	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.407	0.443	0.101	0.0850 to 0.115	91.0	70.0 to 130	8.47	20.0
BC01625	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.806	0.790	0.201	0.170 to 0.230	102	70.0 to 130	2.01	20.0
BC01625	Iron, Total	mg/L	-0.000334	0.0176	0.2	1.13	1.12	0.197	0.170 to 0.230	104	70.0 to 130	0.889	20.0
BC01625	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.113	0.112	0.110	0.0850 to 0.115	108	70.0 to 130	0.889	20.0
BC01625	Lead, Total	mg/L	0.000013	0.000147	0.100	0.112	0.111	0.115	0.0850 to 0.115	107	70.0 to 130	0.897	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 14:45
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-19

Laboratory ID Number: BC01623

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.616	0.588	0.194	0.170 to 0.230	108	70.0 to 130	4.65	20.0
BC01625	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.606	0.598	0.200	0.170 to 0.230	103	70.0 to 130	1.33	20.0
BC01625	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	137	136	5.01	4.25 to 5.75	120	70.0 to 130	0.733	20.0
BC01625	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	134	131	4.99	4.25 to 5.75	100	70.0 to 130	2.26	20.0
BC01625	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	13.5	13.9	0.102	0.0850 to 0.115	0.00	70.0 to 130	2.92	20.0
BC01625	Manganese, Total	mg/L	0.0000277	0.000147	0.100	14.0	13.9	0.102	0.0850 to 0.115	200	70.0 to 130	0.717	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01625	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.103	0.0998	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC01625	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0971	0.105	0.101	0.0850 to 0.115	97.1	70.0 to 130	7.82	20.0
BC01625	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	14.4	14.4	9.82	8.50 to 11.5	94.8	70.0 to 130	0.00	20.0
BC01625	Potassium, Total	mg/L	-0.0160	0.367	10.0	14.5	15.6	9.85	8.50 to 11.5	97.0	70.0 to 130	7.31	20.0
BC01625	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.0923	0.0917	0.108	0.0850 to 0.115	89.1	70.0 to 130	0.652	20.0
BC01625	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.0884	0.0920	0.107	0.0850 to 0.115	85.3	70.0 to 130	3.99	20.0
BC01625	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	21.2	21.0	1.01	0.850 to 1.15	140	70.0 to 130	0.948	20.0
BC01625	Silicon, Total	mg/L	0.000194	0.0440	1.00	20.5	20.7	1.01	0.850 to 1.15	80.0	70.0 to 130	0.971	20.0
BC01625	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	32.8	31.5	4.84	4.25 to 5.75	108	70.0 to 130	4.04	20.0
BC01625	Sodium, Total	mg/L	0.00428	0.0660	5.00	32.4	31.9	4.97	4.25 to 5.75	100	70.0 to 130	1.56	20.0
BC01625	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC01625	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.101	0.105	0.108	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/25/22 14:45
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - PZ-19

Laboratory ID Number: BC01623

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01623	Fluoride	mg/L	0.00166	0.100	2.50	2.70	0.204	2.50	2.25 to 2.75	100	80.0 to 120	5.03	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01623	Solids, Dissolved	mg/L	0.0000	25.0			888	50.0	40.0 to 60.0			0.338	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12H

Location Code: WMWGORG
Collected: 1/25/22 15:48
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01624

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 11:07		1.015	0.0645	mg/L	0.030000	0.1015	J
* Calcium, Total	1/27/22 10:03	1/28/22 11:38		20.3	124	mg/L	1.4007	8.12	
* Iron, Total	1/27/22 10:03	1/28/22 11:07		1.015	0.856	mg/L	0.008120	0.0406	
* Lithium, Total	1/27/22 10:03	1/28/22 11:07		1.015	0.397	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:38		20.3	129	mg/L	0.4263	8.12	
Silica, Total (calc.)	1/27/22 10:03	1/28/22 11:07		1	41.7	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 11:07		1.015	19.5	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 11:07		1.015	27.0	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:46		1.015	0.0651	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:22		20.3	131	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:46		1.015	0.596	mg/L	0.008120	0.0406	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:46		1.015	0.395	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 10:22		20.3	135	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:46		1	41.5	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:46		1.015	19.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	1/27/22 09:52	1/28/22 09:46		1.015	27.0	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 16:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	2/1/22 12:43		92.365	11.9	mg/L	0.369460	0.92365	
* Arsenic, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.00129	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.0130	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.00729	mg/L	0.000406	0.001015	
* Cadmium, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.00333	mg/L	0.000068	0.000203	
* Chromium, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.000334	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.315	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.00520	mg/L	0.000068	0.000203	
* Manganese, Total	1/27/22 09:55	2/1/22 12:43		92.365	14.0	mg/L	0.006188	0.018473	
* Molybdenum, Total	1/27/22 09:55	1/27/22 16:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 16:16		1.015	4.76	mg/L	0.169505	0.5075	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12H

Location Code: WMWGORG
Collected: 1/25/22 15:48
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01624

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.00311	mg/L	0.000508	0.001015	
* Thallium, Total	1/27/22 09:55	1/27/22 16:16		1.015	0.000317	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	2/1/22 12:00		92.365	11.8	mg/L	0.369460	0.92365	
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.00110	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.0126	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.00753	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.00315	mg/L	0.000068	0.000203	
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.000226	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.317	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.00488	mg/L	0.000068	0.000203	
* Manganese, Dissolved	1/27/22 10:10	2/1/22 12:00		92.365	13.7	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	4.79	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.00315	mg/L	0.000508	0.001015	
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:49		1.015	0.000324	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 19:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:35	2/1/22 14:35		1	0.248	mg/L as N	0.20	0.3	J
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1320	mg/L		75.8	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 13:59	2/1/22 13:59		1	1.22	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:05	1/28/22 10:05		1	1.83	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 13:18	1/27/22 13:18		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:26	2/7/22 14:26		40	903	mg/L	20.00	40	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12H

Location Code: WMWGORG
Collected: 1/25/22 15:48
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01624

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/25/22 15:45	1/25/22 15:45			1495.64	uS/cm			FA
pH	1/25/22 15:45	1/25/22 15:45			4.11	SU			FA
Temperature	1/25/22 15:45	1/25/22 15:45			19.14	C			FA
Turbidity	1/25/22 15:45	1/25/22 15:45			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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 15:48
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - MW-12H

Laboratory ID Number: BC01624

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	11.7	12.3	0.104	0.0850 to 0.115	200	70.0 to 130	5.00	20.0
BC01625	Aluminum, Total	mg/L	0.000849	0.00880	0.100	12.0	12.0	0.104	0.0850 to 0.115	200	70.0 to 130	0.00	20.0
BC01625	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0998	0.0994	0.0977	0.0850 to 0.115	99.8	70.0 to 130	0.402	20.0
BC01625	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0989	0.108	0.0957	0.0850 to 0.115	98.9	70.0 to 130	8.80	20.0
BC01625	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.105	0.108	0.105	0.0850 to 0.115	104	70.0 to 130	2.82	20.0
BC01625	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	101	70.0 to 130	6.64	20.0
BC01625	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.109	0.109	0.0997	0.0850 to 0.115	97.3	70.0 to 130	0.00	20.0
BC01625	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.104	0.113	0.0953	0.0850 to 0.115	91.0	70.0 to 130	8.29	20.0
BC01625	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0967	0.0938	0.0983	0.0850 to 0.115	89.5	70.0 to 130	3.04	20.0
BC01625	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0945	0.0944	0.0945	0.0850 to 0.115	87.6	70.0 to 130	0.106	20.0
BC01625	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.11	1.09	0.998	0.850 to 1.15	104	70.0 to 130	1.82	20.0
BC01625	Boron, Total	mg/L	-0.000624	0.0650	1.00	1.10	1.08	0.987	0.850 to 1.15	104	70.0 to 130	1.83	20.0
BC01625	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.113	0.111	0.105	0.0850 to 0.115	110	70.0 to 130	1.79	20.0
BC01625	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.109	0.114	0.107	0.0850 to 0.115	106	70.0 to 130	4.48	20.0
BC01625	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	131	130	4.87	4.25 to 5.75	100	70.0 to 130	0.766	20.0
BC01625	Calcium, Total	mg/L	-0.0181	0.152	5.00	126	124	4.80	4.25 to 5.75	60.0	70.0 to 130	1.60	20.0
BC01625	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.0992	0.101	0.105	0.0850 to 0.115	98.9	70.0 to 130	1.80	20.0
BC01625	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.0978	0.106	0.104	0.0850 to 0.115	97.4	70.0 to 130	8.05	20.0
BC01625	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.407	0.414	0.103	0.0850 to 0.115	92.0	70.0 to 130	1.71	20.0
BC01625	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.407	0.443	0.101	0.0850 to 0.115	91.0	70.0 to 130	8.47	20.0
BC01625	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.806	0.790	0.201	0.170 to 0.230	102	70.0 to 130	2.01	20.0
BC01625	Iron, Total	mg/L	-0.000334	0.0176	0.2	1.13	1.12	0.197	0.170 to 0.230	104	70.0 to 130	0.889	20.0
BC01625	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.113	0.112	0.110	0.0850 to 0.115	108	70.0 to 130	0.889	20.0
BC01625	Lead, Total	mg/L	0.000013	0.000147	0.100	0.112	0.111	0.115	0.0850 to 0.115	107	70.0 to 130	0.897	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 15:48
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - MW-12H

Laboratory ID Number: BC01624

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.616	0.588	0.194	0.170 to 0.230	108	70.0 to 130	4.65	20.0
BC01625	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.606	0.598	0.200	0.170 to 0.230	103	70.0 to 130	1.33	20.0
BC01625	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	137	136	5.01	4.25 to 5.75	120	70.0 to 130	0.733	20.0
BC01625	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	134	131	4.99	4.25 to 5.75	100	70.0 to 130	2.26	20.0
BC01625	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	13.5	13.9	0.102	0.0850 to 0.115	0.00	70.0 to 130	2.92	20.0
BC01625	Manganese, Total	mg/L	0.0000277	0.000147	0.100	14.0	13.9	0.102	0.0850 to 0.115	200	70.0 to 130	0.717	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01625	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.103	0.0998	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC01625	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0971	0.105	0.101	0.0850 to 0.115	97.1	70.0 to 130	7.82	20.0
BC01625	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	14.4	14.4	9.82	8.50 to 11.5	94.8	70.0 to 130	0.00	20.0
BC01625	Potassium, Total	mg/L	-0.0160	0.367	10.0	14.5	15.6	9.85	8.50 to 11.5	97.0	70.0 to 130	7.31	20.0
BC01625	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.0923	0.0917	0.108	0.0850 to 0.115	89.1	70.0 to 130	0.652	20.0
BC01625	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.0884	0.0920	0.107	0.0850 to 0.115	85.3	70.0 to 130	3.99	20.0
BC01625	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	21.2	21.0	1.01	0.850 to 1.15	140	70.0 to 130	0.948	20.0
BC01625	Silicon, Total	mg/L	0.000194	0.0440	1.00	20.5	20.7	1.01	0.850 to 1.15	80.0	70.0 to 130	0.971	20.0
BC01625	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	32.8	31.5	4.84	4.25 to 5.75	108	70.0 to 130	4.04	20.0
BC01625	Sodium, Total	mg/L	0.00428	0.0660	5.00	32.4	31.9	4.97	4.25 to 5.75	100	70.0 to 130	1.56	20.0
BC01625	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC01625	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.101	0.105	0.108	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/25/22 15:48
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - MW-12H

Laboratory ID Number: BC01624

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01623	Fluoride	mg/L	0.00166	0.100	2.50	2.70	0.204	2.50	2.25 to 2.75	100	80.0 to 120	5.03	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12H DUP

Location Code: WMWGORG
Collected: 1/25/22 15:48
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01625

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	1/27/22 10:03	1/28/22 11:09		1.015	0.0645	mg/L	0.030000	0.1015	J
* Calcium, Total	1/27/22 10:03	1/28/22 11:40		20.3	123	mg/L	1.4007	8.12	RA
* Iron, Total	1/27/22 10:03	1/28/22 11:09		1.015	0.922	mg/L	0.008120	0.0406	
* Lithium, Total	1/27/22 10:03	1/28/22 11:09		1.015	0.400	mg/L	0.007105	0.01999956	
* Magnesium, Total	1/27/22 10:03	1/28/22 11:40		20.3	129	mg/L	0.4263	8.12	RA
Silica, Total (calc.)	1/27/22 10:03	1/28/22 11:09		1	42.2	mg/L			
Silicon, Total	1/27/22 10:03	1/28/22 11:09		1.015	19.7	mg/L	0.02030	0.25375	
* Sodium, Total	1/27/22 10:03	1/28/22 11:09		1.015	27.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	1/27/22 09:52	1/28/22 09:48		1.015	0.0656	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	1/27/22 09:52	1/28/22 10:24		20.3	126	mg/L	1.4007	8.12	
* Iron, Dissolved	1/27/22 09:52	1/28/22 09:48		1.015	0.601	mg/L	0.008120	0.0406	
* Lithium, Dissolved	1/27/22 09:52	1/28/22 09:48		1.015	0.400	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	1/27/22 09:52	1/28/22 10:24		20.3	131	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	1/27/22 09:52	1/28/22 09:48		1	42.4	mg/L			
Silicon, Dissolved	1/27/22 09:52	1/28/22 09:48		1.015	19.8	mg/L	0.02030	0.25375	RA
* Sodium, Dissolved	1/27/22 09:52	1/28/22 09:48		1.015	27.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	1/27/22 09:55	1/27/22 16:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	1/27/22 09:55	2/1/22 12:47		92.365	11.8	mg/L	0.369460	0.92365	RA
* Arsenic, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.00118	mg/L	0.000068	0.000203	
* Barium, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.0130	mg/L	0.000102	0.000203	
* Beryllium, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.00693	mg/L	0.000406	0.001015	
* Cadmium, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.00333	mg/L	0.000068	0.000203	
* Chromium, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.000388	mg/L	0.000203	0.001015	J
* Cobalt, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.316	mg/L	0.000068	0.000203	
* Lead, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.00506	mg/L	0.000068	0.000203	
* Manganese, Total	1/27/22 09:55	2/1/22 12:47		92.365	13.8	mg/L	0.006188	0.018473	RA
* Molybdenum, Total	1/27/22 09:55	1/27/22 16:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	1/27/22 09:55	1/27/22 16:20		1.015	4.80	mg/L	0.169505	0.5075	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12H DUP

Location Code: WMWGORG
Collected: 1/25/22 15:48
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01625

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.00311	mg/L	0.000508	0.001015	
* Thallium, Total	1/27/22 09:55	1/27/22 16:20		1.015	0.000326	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	1/27/22 10:10	2/1/22 12:04		92.365	11.5	mg/L	0.369460	0.92365	RA
* Arsenic, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.00115	mg/L	0.000068	0.000203	
* Barium, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.0117	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.00720	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.00314	mg/L	0.000068	0.000203	
* Chromium, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.000271	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.315	mg/L	0.000068	0.000203	
* Lead, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.00485	mg/L	0.000068	0.000203	
* Manganese, Dissolved	1/27/22 10:10	2/1/22 12:04		92.365	13.5	mg/L	0.006188	0.018473	RA
* Molybdenum, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	4.92	mg/L	0.169505	0.5075	
* Selenium, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.00317	mg/L	0.000508	0.001015	
* Thallium, Dissolved	1/27/22 10:10	1/27/22 13:52		1.015	0.000326	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 20:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:37	2/1/22 14:37		1	0.243	mg/L as N	0.20	0.3	J
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1310	mg/L		75.8	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 14:18	2/1/22 14:18		1	1.15	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:06	1/28/22 10:06		1	1.86	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/27/22 13:20	1/27/22 13:20		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:28	2/7/22 14:28		40	895	mg/L	20.00	40	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12H DUP

Location Code: WMWGORG
Collected: 1/25/22 15:48
Customer ID:
Submittal Date: 1/26/22 10:06

Laboratory ID Number: BC01625

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/25/22 15:45	1/25/22 15:45			1495.64	uS/cm			FA
pH	1/25/22 15:45	1/25/22 15:45			4.11	SU			FA
Temperature	1/25/22 15:45	1/25/22 15:45			19.14	C			FA
Turbidity	1/25/22 15:45	1/25/22 15:45			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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 15:48
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - MW-12H DUP

Laboratory ID Number: BC01625

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Aluminum, Dissolved	mg/L	0.000300	0.00880	0.100	11.7	12.3	0.104	0.0850 to 0.115	200	70.0 to 130	5.00	20.0
BC01625	Aluminum, Total	mg/L	0.000849	0.00880	0.100	12.0	12.0	0.104	0.0850 to 0.115	200	70.0 to 130	0.00	20.0
BC01625	Antimony, Dissolved	mg/L	0.0000892	0.00100	0.100	0.0998	0.0994	0.0977	0.0850 to 0.115	99.8	70.0 to 130	0.402	20.0
BC01625	Antimony, Total	mg/L	0.0000707	0.00100	0.100	0.0989	0.108	0.0957	0.0850 to 0.115	98.9	70.0 to 130	8.80	20.0
BC01625	Arsenic, Dissolved	mg/L	0.0000136	0.000147	0.100	0.105	0.108	0.105	0.0850 to 0.115	104	70.0 to 130	2.82	20.0
BC01625	Arsenic, Total	mg/L	0.0000151	0.000147	0.100	0.102	0.109	0.105	0.0850 to 0.115	101	70.0 to 130	6.64	20.0
BC01625	Barium, Dissolved	mg/L	-0.0000179	0.000200	0.100	0.109	0.109	0.0997	0.0850 to 0.115	97.3	70.0 to 130	0.00	20.0
BC01625	Barium, Total	mg/L	0.0000264	0.000200	0.100	0.104	0.113	0.0953	0.0850 to 0.115	91.0	70.0 to 130	8.29	20.0
BC01625	Beryllium, Dissolved	mg/L	0.0000412	0.000880	0.100	0.0967	0.0938	0.0983	0.0850 to 0.115	89.5	70.0 to 130	3.04	20.0
BC01625	Beryllium, Total	mg/L	0.000044	0.000880	0.100	0.0945	0.0944	0.0945	0.0850 to 0.115	87.6	70.0 to 130	0.106	20.0
BC01625	Boron, Dissolved	mg/L	-0.0004	0.0650	1.00	1.11	1.09	0.998	0.850 to 1.15	104	70.0 to 130	1.82	20.0
BC01625	Boron, Total	mg/L	-0.000624	0.0650	1.00	1.10	1.08	0.987	0.850 to 1.15	104	70.0 to 130	1.83	20.0
BC01625	Cadmium, Dissolved	mg/L	0.0000271	0.000147	0.100	0.113	0.111	0.105	0.0850 to 0.115	110	70.0 to 130	1.79	20.0
BC01625	Cadmium, Total	mg/L	0.0000127	0.000147	0.100	0.109	0.114	0.107	0.0850 to 0.115	106	70.0 to 130	4.48	20.0
BC01625	Calcium, Dissolved	mg/L	-0.0126	0.152	5.00	131	130	4.87	4.25 to 5.75	100	70.0 to 130	0.766	20.0
BC01625	Calcium, Total	mg/L	-0.0181	0.152	5.00	126	124	4.80	4.25 to 5.75	60.0	70.0 to 130	1.60	20.0
BC01625	Chromium, Dissolved	mg/L	-0.0000049	0.000440	0.100	0.0992	0.101	0.105	0.0850 to 0.115	98.9	70.0 to 130	1.80	20.0
BC01625	Chromium, Total	mg/L	0.0000174	0.000440	0.100	0.0978	0.106	0.104	0.0850 to 0.115	97.4	70.0 to 130	8.05	20.0
BC01625	Cobalt, Dissolved	mg/L	0.0000104	0.000147	0.100	0.407	0.414	0.103	0.0850 to 0.115	92.0	70.0 to 130	1.71	20.0
BC01625	Cobalt, Total	mg/L	0.0000076	0.000147	0.100	0.407	0.443	0.101	0.0850 to 0.115	91.0	70.0 to 130	8.47	20.0
BC01625	Iron, Dissolved	mg/L	-0.000395	0.0176	0.2	0.806	0.790	0.201	0.170 to 0.230	102	70.0 to 130	2.01	20.0
BC01625	Iron, Total	mg/L	-0.000334	0.0176	0.2	1.13	1.12	0.197	0.170 to 0.230	104	70.0 to 130	0.889	20.0
BC01625	Lead, Dissolved	mg/L	0.0000136	0.000147	0.100	0.113	0.112	0.110	0.0850 to 0.115	108	70.0 to 130	0.889	20.0
BC01625	Lead, Total	mg/L	0.000013	0.000147	0.100	0.112	0.111	0.115	0.0850 to 0.115	107	70.0 to 130	0.897	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/25/22 15:48
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - MW-12H DUP

Laboratory ID Number: BC01625

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01625	Lithium, Dissolved	mg/L	-0.000047	0.0154	0.200	0.616	0.588	0.194	0.170 to 0.230	108	70.0 to 130	4.65	20.0
BC01625	Lithium, Total	mg/L	-0.000265	0.0154	0.200	0.606	0.598	0.200	0.170 to 0.230	103	70.0 to 130	1.33	20.0
BC01625	Magnesium, Dissolved	mg/L	-0.00921	0.0462	5.00	137	136	5.01	4.25 to 5.75	120	70.0 to 130	0.733	20.0
BC01625	Magnesium, Total	mg/L	-0.00243	0.0462	5.00	134	131	4.99	4.25 to 5.75	100	70.0 to 130	2.26	20.0
BC01625	Manganese, Dissolved	mg/L	0.0000192	0.000147	0.100	13.5	13.9	0.102	0.0850 to 0.115	0.00	70.0 to 130	2.92	20.0
BC01625	Manganese, Total	mg/L	0.0000277	0.000147	0.100	14.0	13.9	0.102	0.0850 to 0.115	200	70.0 to 130	0.717	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01625	Molybdenum, Dissolved	mg/L	0.0000298	0.000147	0.100	0.101	0.103	0.0998	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BC01625	Molybdenum, Total	mg/L	-0.0000003	0.000147	0.100	0.0971	0.105	0.101	0.0850 to 0.115	97.1	70.0 to 130	7.82	20.0
BC01625	Potassium, Dissolved	mg/L	-0.0112	0.367	10.0	14.4	14.4	9.82	8.50 to 11.5	94.8	70.0 to 130	0.00	20.0
BC01625	Potassium, Total	mg/L	-0.0160	0.367	10.0	14.5	15.6	9.85	8.50 to 11.5	97.0	70.0 to 130	7.31	20.0
BC01625	Selenium, Dissolved	mg/L	0.0000355	0.00100	0.100	0.0923	0.0917	0.108	0.0850 to 0.115	89.1	70.0 to 130	0.652	20.0
BC01625	Selenium, Total	mg/L	0.0000422	0.00100	0.100	0.0884	0.0920	0.107	0.0850 to 0.115	85.3	70.0 to 130	3.99	20.0
BC01625	Silicon, Dissolved	mg/L	0.000078	0.0440	1.00	21.2	21.0	1.01	0.850 to 1.15	140	70.0 to 130	0.948	20.0
BC01625	Silicon, Total	mg/L	0.000194	0.0440	1.00	20.5	20.7	1.01	0.850 to 1.15	80.0	70.0 to 130	0.971	20.0
BC01625	Sodium, Dissolved	mg/L	-0.000372	0.0660	5.00	32.8	31.5	4.84	4.25 to 5.75	108	70.0 to 130	4.04	20.0
BC01625	Sodium, Total	mg/L	0.00428	0.0660	5.00	32.4	31.9	4.97	4.25 to 5.75	100	70.0 to 130	1.56	20.0
BC01625	Thallium, Dissolved	mg/L	0.0000134	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC01625	Thallium, Total	mg/L	0.0000134	0.000147	0.100	0.101	0.105	0.108	0.0850 to 0.115	101	70.0 to 130	3.88	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/25/22 15:48
Customer ID:
Delivery Date: 1/26/22 10:06

Description: Gorgas Gypsum - MW-12H DUP

Laboratory ID Number: BC01625

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01623	Fluoride	mg/L	0.00166	0.100	2.50	2.70	0.204	2.50	2.25 to 2.75	100	80.0 to 120	5.03	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-3V

Location Code: WMWGORG
Collected: 1/26/22 11:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01768

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:29		1.015	2.81	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 11:59		101.5	448	mg/L	7.0035	40.6	
* Iron, Total	2/3/22 12:00	2/4/22 11:59		101.5	33.0	mg/L	0.8120	4.06	
* Lithium, Total	2/3/22 12:00	2/4/22 10:29		1.015	0.347	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 11:59		101.5	239	mg/L	2.1315	40.6	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:29		1	24.2	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:29		1.015	11.3	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 11:59		101.5	230	mg/L	3.045	40.6	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:42		1.015	2.82	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:16		101.5	481	mg/L	7.0035	40.6	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:16		101.5	33.0	mg/L	0.8120	4.06	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:42		1.015	0.352	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:16		101.5	256	mg/L	2.1315	40.6	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:42		1	24.0	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:42		1.015	11.2	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:16		101.5	245	mg/L	3.045	40.6	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 14:51		1.015	0.000520	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/1/22 08:51	2/1/22 14:51		1.015	0.0130	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 14:51		1.015	0.000360	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 14:51		1.015	0.0161	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 14:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 14:51		1.015	0.000497	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 14:51		1.015	0.0120	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 18:02		92.365	13.7	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 14:51		1.015	0.000120	mg/L	0.000068	0.000203	J
* Potassium, Total	2/1/22 08:51	2/1/22 14:51		1.015	7.52	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-3V

Location Code: WMWGORG
Collected: 1/26/22 11:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01768

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 14:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	0.00876	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	0.000208	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	0.0149	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	0.000248	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	0.0132	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 14:52		92.365	13.1	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	0.0000931	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	7.49	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 20:05		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:39	2/1/22 14:39		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	173	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	3150	mg/L		208.3	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	173	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.03	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 14:37	2/1/22 14:37		1	1.34	mg/L	1.00	2	J

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-3V

Location Code: WMWGORG
Collected: 1/26/22 11:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01768

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:29	1/28/22 10:29		20	238	mg/L	10.00	20	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:39	1/28/22 12:39		1	0.516	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:29	2/7/22 14:29		80	2010	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/26/22 11:47	1/26/22 11:47			3876.99	uS/cm			FA
pH	1/26/22 11:47	1/26/22 11:47			6.61	SU			FA
Temperature	1/26/22 11:47	1/26/22 11:47			15.02	C			FA
Turbidity	1/26/22 11:47	1/26/22 11:47			2.45	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 11:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-3V

Laboratory ID Number: BC01768

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 11:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-3V

Laboratory ID Number: BC01768

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 11:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-3V

Laboratory ID Number: BC01768

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-8V

Location Code: WMWGORG
Collected: 1/26/22 13:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01769

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:31		1.015	0.153	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 10:31		1.015	31.5	mg/L	0.070035	0.406	
* Iron, Total	2/3/22 12:00	2/4/22 10:31		1.015	0.107	mg/L	0.008120	0.0406	
* Lithium, Total	2/3/22 12:00	2/4/22 10:31		1.015	0.233	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 10:31		1.015	13.7	mg/L	0.021315	0.406	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:31		1	19.9	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:31		1.015	9.32	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:01		101.5	365	mg/L	3.045	40.6	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:44		1.015	0.149	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 09:44		1.015	32.0	mg/L	0.070035	0.406	
* Iron, Dissolved	2/3/22 12:00	2/4/22 09:44		1.015	0.0387	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:44		1.015	0.226	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 09:44		1.015	13.5	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:44		1	19.5	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:44		1.015	9.11	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:18		101.5	386	mg/L	3.045	40.6	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 14:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 14:55		1.015	0.0178	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 14:55		1.015	0.00542	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 14:55		1.015	0.137	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 14:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 14:55		1.015	0.000229	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/1/22 08:51	2/1/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 18:06		1.015	0.209	mg/L	0.000068	0.000203	
* Molybdenum, Total	2/1/22 08:51	2/1/22 14:55		1.015	0.000782	mg/L	0.000068	0.000203	
* Potassium, Total	2/1/22 08:51	2/1/22 14:55		1.015	4.34	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-8V

Location Code: WMWGORG
Collected: 1/26/22 13:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01769

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 14:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	0.00641	mg/L	0.004060	0.01015	J
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	0.00385	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	0.123	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 14:55		1.015	0.198	mg/L	0.000068	0.000203	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	0.000177	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	3.79	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	0.0124	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 20:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:41	2/1/22 14:41		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	791	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1050	mg/L		100	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	786	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	4.56	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 14:56	2/1/22 14:56		1	2.60	mg/L	1.00	2	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-8V

Location Code: WMWGORG
Collected: 1/26/22 13:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01769

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:08	1/28/22 10:08		1	18.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:40	1/28/22 12:40		1	0.306	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:30	2/7/22 14:30		10	199	mg/L	5.00	10	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/26/22 13:46	1/26/22 13:46			1722.53	uS/cm			FA
pH	1/26/22 13:46	1/26/22 13:46			8.18	SU			FA
Temperature	1/26/22 13:46	1/26/22 13:46			19.12	C			FA
Turbidity	1/26/22 13:46	1/26/22 13:46			1.06	NTU			FA

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 13:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-8V

Laboratory ID Number: BC01769

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 13:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-8V

Laboratory ID Number: BC01769

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 13:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-8V

Laboratory ID Number: BC01769

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-3

Location Code: WMWGORG
Collected: 1/26/22 15:08
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01770

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:33		1.015	2.50	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:03		101.5	517	mg/L	7.0035	40.6	
* Iron, Total	2/3/22 12:00	2/4/22 12:03		101.5	144	mg/L	0.8120	4.06	
* Lithium, Total	2/3/22 12:00	2/4/22 10:33		1.015	0.310	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:03		101.5	337	mg/L	2.1315	40.6	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:33		1	22.7	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:33		1.015	10.6	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:03		101.5	205	mg/L	3.045	40.6	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:46		1.015	2.54	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:19		101.5	518	mg/L	7.0035	40.6	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:19		101.5	145	mg/L	0.8120	4.06	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 12:42		1.015	0.285	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:19		101.5	331	mg/L	2.1315	40.6	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:46		1	22.9	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:46		1.015	10.7	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:19		101.5	202	mg/L	3.045	40.6	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.000658	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.245	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.00136	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.0148	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.00179	mg/L	0.000406	0.001015	
* Cadmium, Total	2/1/22 08:51	2/1/22 14:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.000480	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.0794	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.000140	mg/L	0.000068	0.000203	J
* Manganese, Total	2/1/22 08:51	2/3/22 18:09		92.365	51.7	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.000225	mg/L	0.000068	0.000203	
* Potassium, Total	2/1/22 08:51	2/1/22 14:59		1.015	9.04	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-3

Location Code: WMWGORG
Collected: 1/26/22 15:08
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01770

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 14:59		1.015	0.00117	mg/L	0.000508	0.001015	
* Thallium, Total	2/1/22 08:51	2/1/22 14:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	0.0577	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	0.00104	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	0.0118	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	0.00196	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	0.0840	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 14:59		92.365	49.7	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	0.000188	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	8.92	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	0.00209	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	1/31/22 15:35	1/31/22 20:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:43	2/1/22 14:43		1	0.320	mg/L as N	0.20	0.3	R
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	197	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	4260	mg/L		227.3	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	197	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.02	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 15:15	2/1/22 15:15		1	1.32	mg/L	1.00	2	J

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-3

Location Code: WMWGORG
Collected: 1/26/22 15:08
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01770

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:30	1/28/22 10:30		40	255	mg/L	20.00	40	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:41	1/28/22 12:41		1	0.447	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 14:31	2/7/22 14:31		125	2620	mg/L	62.50	125	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/26/22 15:05	1/26/22 15:05			4478	uS/cm			FA
pH	1/26/22 15:05	1/26/22 15:05			6.52	SU			FA
Temperature	1/26/22 15:05	1/26/22 15:05			19.18	C			FA
Turbidity	1/26/22 15:05	1/26/22 15:05			9.2	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 15:08
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-3

Laboratory ID Number: BC01770

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 15:08
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-3

Laboratory ID Number: BC01770

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01770	Mercury, Total by CVAA	mg/L	-2.000E-05	0.000500	0.004	0.00393	0.00396	0.00393	0.00340 to 0.00460	98.2	70.0 to 130	0.760	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01770	Total Organic Carbon	mg/L	0.280	1.00	10.0	11.2	11.2	25.4		98.8	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.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 15:08
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-3

Laboratory ID Number: BC01770

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01770	Chloride	mg/L	0.0684	1.00	400	680	263	10.2	9.00 to 11.0	106	80.0 to 120	3.09	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01770	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	1.95	0.350	1.91	1.80 to 2.20	81.5	90.0 to 110	8.96	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01770	Sulfate	mg/L	-0.00917	1.00	2500	5010	2610	19.2	18.0 to 22.0	95.6	80.0 to 120	0.382	20.0

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

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-4V

Location Code: WMWGORG
Collected: 1/27/22 09:40
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01771

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:35		1.015	3.47	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:04		101.5	172	mg/L	7.0035	40.6	
* Iron, Total	2/3/22 12:00	2/4/22 12:04		101.5	40.0	mg/L	0.8120	4.06	
* Lithium, Total	2/3/22 12:00	2/4/22 10:35		1.015	0.305	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:04		101.5	116	mg/L	2.1315	40.6	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:35		1	31.5	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:35		1.015	14.7	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 10:35		1.015	27.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:48		1.015	3.44	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:21		101.5	176	mg/L	7.0035	40.6	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:21		101.5	39.2	mg/L	0.8120	4.06	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:48		1.015	0.294	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:21		101.5	117	mg/L	2.1315	40.6	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:48		1	29.5	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:48		1.015	13.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 09:48		1.015	26.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.000544	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/1/22 08:51	2/3/22 18:13		10.15	2.90	mg/L	0.04060	0.1015	
* Arsenic, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.00124	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.0108	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.00431	mg/L	0.000406	0.001015	
* Cadmium, Total	2/1/22 08:51	2/1/22 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.000291	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.124	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.0000743	mg/L	0.000068	0.000203	J
* Manganese, Total	2/1/22 08:51	2/3/22 18:13		10.15	5.10	mg/L	0.000680	0.00203	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.0000908	mg/L	0.000068	0.000203	J
* Potassium, Total	2/1/22 08:51	2/1/22 15:02		1.015	4.62	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-4V

Location Code: WMWGORG
Collected: 1/27/22 09:40
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01771

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:02		1.015	0.00101	mg/L	0.000508	0.001015	J
* Thallium, Total	2/1/22 08:51	2/1/22 15:02		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	0.530	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	0.00108	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	0.00995	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	0.00335	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	0.000267	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	0.138	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:03		10.15	5.22	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	4.43	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	0.00142	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:52	2/1/22 14:52		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	41.4	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1330	mg/L		75.8	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	41.4	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.00	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 16:33	2/1/22 16:33		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-4V

Location Code: WMWGORG
Collected: 1/27/22 09:40
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01771

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:49	1/28/22 10:49		5	51.9	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:42	1/28/22 12:42		1	0.373	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:12	2/7/22 15:12		32	825	mg/L	16.00	32	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/27/22 09:37	1/27/22 09:37			1619.95	uS/cm			FA
pH	1/27/22 09:37	1/27/22 09:37			6.17	SU			FA
Temperature	1/27/22 09:37	1/27/22 09:37			18.50	C			FA
Turbidity	1/27/22 09:37	1/27/22 09:37			9.53	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 09:40
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-4V

Laboratory ID Number: BC01771

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 09:40
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-4V

Laboratory ID Number: BC01771

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/27/22 09:40
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-4V

Laboratory ID Number: BC01771

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-17

Location Code: WMWGORG
Collected: 1/27/22 10:45
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01772

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:36		1.015	0.0640	mg/L	0.030000	0.1015	J
* Calcium, Total	2/3/22 12:00	2/4/22 12:06		10.15	73.5	mg/L	0.70035	4.06	
* Iron, Total	2/3/22 12:00	2/4/22 10:36		1.015	3.10	mg/L	0.008120	0.0406	
* Lithium, Total	2/3/22 12:00	2/4/22 10:36		1.015	0.294	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:06		10.15	46.9	mg/L	0.21315	4.06	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:36		1	30.4	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:36		1.015	14.2	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 10:36		1.015	7.37	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:50		1.015	0.0626	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:23		10.15	73.3	mg/L	0.70035	4.06	
* Iron, Dissolved	2/3/22 12:00	2/4/22 09:50		1.015	2.97	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:50		1.015	0.273	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:23		10.15	46.6	mg/L	0.21315	4.06	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:50		1	30.0	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:50		1.015	14.0	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 09:50		1.015	6.86	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.000508	mg/L	0.000508	0.001015	J
* Aluminum, Total	2/1/22 08:51	2/3/22 18:18		92.365	12.4	mg/L	0.369460	0.92365	
* Arsenic, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.00136	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.0177	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.00456	mg/L	0.000406	0.001015	
* Cadmium, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.00151	mg/L	0.000068	0.000203	
* Chromium, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.000896	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.129	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.00362	mg/L	0.000068	0.000203	
* Manganese, Total	2/1/22 08:51	2/3/22 18:18		92.365	4.83	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/1/22 08:51	2/1/22 15:06		1.015	4.62	mg/L	0.169505	0.5075	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-17

Location Code: WMWGORG
Collected: 1/27/22 10:45
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01772

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.00269	mg/L	0.000508	0.001015	
* Thallium, Total	2/1/22 08:51	2/1/22 15:06		1.015	0.000184	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 15:06		92.365	12.9	mg/L	0.369460	0.92365	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.00110	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.0151	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.00489	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.00136	mg/L	0.000068	0.000203	
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.000816	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.140	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.00381	mg/L	0.000068	0.000203	
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:06		92.365	4.79	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	4.27	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.00349	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:38		1.015	0.000175	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:54	2/1/22 14:54		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	648	mg/L		25	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 16:49	2/1/22 16:49		1	1.34	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:51	1/28/22 10:51		1	1.64	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:44	1/28/22 12:44		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:13	2/7/22 15:13		20	379	mg/L	10.00	20	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-17

Location Code: WMWGORG
Collected: 1/27/22 10:45
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01772

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	1/27/22 10:41	1/27/22 10:41			756.96	uS/cm			FA
pH	1/27/22 10:41	1/27/22 10:41			4.63	SU			FA
Temperature	1/27/22 10:41	1/27/22 10:41			18.64	C			FA
Turbidity	1/27/22 10:41	1/27/22 10:41			0.97	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 10:45
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - PZ-17

Laboratory ID Number: BC01772

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 10:45
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - PZ-17

Laboratory ID Number: BC01772

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/27/22 10:45
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - PZ-17

Laboratory ID Number: BC01772

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-11H

Location Code: WMWGORG
Collected: 1/26/22 10:10
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01773

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:38		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/3/22 12:00	2/4/22 12:08		10.15	143	mg/L	0.70035	4.06	
* Iron, Total	2/3/22 12:00	2/4/22 10:38		1.015	1.53	mg/L	0.008120	0.0406	
* Lithium, Total	2/3/22 12:00	2/4/22 10:38		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/3/22 12:00	2/4/22 12:08		10.15	126	mg/L	0.21315	4.06	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:38		1	19.4	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:38		1.015	9.05	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:08		10.15	45.3	mg/L	0.3045	4.06	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:51		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:25		10.15	144	mg/L	0.70035	4.06	
* Iron, Dissolved	2/3/22 12:00	2/4/22 09:51		1.015	1.43	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:51		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:25		10.15	124	mg/L	0.21315	4.06	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:51		1	18.9	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:51		1.015	8.84	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:25		10.15	44.6	mg/L	0.3045	4.06	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.348	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.000427	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.0139	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.000294	mg/L	0.000068	0.000203	
* Chromium, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.000524	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.00479	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.000231	mg/L	0.000068	0.000203	
* Manganese, Total	2/1/22 08:51	2/3/22 18:22		10.15	1.94	mg/L	0.000680	0.00203	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:10		1.015	0.000112	mg/L	0.000068	0.000203	J
* Potassium, Total	2/1/22 08:51	2/1/22 15:10		1.015	1.02	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-11H

Location Code: WMWGORG
Collected: 1/26/22 10:10
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01773

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:10		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 15:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	0.000234	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	0.0112	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	0.000132	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	0.000208	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	0.00505	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:10		10.15	1.86	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	0.883	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:55	2/1/22 14:55		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	1/31/22 09:50	1/31/22 13:00		1	85.2	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1140	mg/L		75.8	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	85.2	mg/L			
Carbonate Alkalinity, (calc.)	1/31/22 09:50	1/31/22 13:00		1	0.02	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 17:07	2/1/22 17:07		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-11H

Location Code: WMWGORG
Collected: 1/26/22 10:10
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01773

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:52	1/28/22 10:52		1	5.40	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:45	1/28/22 12:45		1	0.0809	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:15	2/7/22 15:15		32	745	mg/L	16.00	32	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/26/22 10:06	1/26/22 10:06			1445.07	uS/cm			FA
pH	1/26/22 10:06	1/26/22 10:06			5.95	SU			FA
Temperature	1/26/22 10:06	1/26/22 10:06			19.79	C			FA
Turbidity	1/26/22 10:06	1/26/22 10:06			8.2	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 10:10
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-11H

Laboratory ID Number: BC01773

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 10:10
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-11H

Laboratory ID Number: BC01773

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 10:10
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-11H

Laboratory ID Number: BC01773

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01773	Alkalinity, Total as CaCO3	mg/L					89.2	50.5	45.0 to 55.0			4.59	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-13H

Location Code: WMWGORG
Collected: 1/26/22 11:17
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01774

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:40		1.015	0.206	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:10		20.3	158	mg/L	1.4007	8.12	
* Iron, Total	2/3/22 12:00	2/4/22 12:10		20.3	55.8	mg/L	0.1624	0.812	
* Lithium, Total	2/3/22 12:00	2/4/22 10:40		1.015	0.0301	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:10		20.3	113	mg/L	0.4263	8.12	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:40		1	25.7	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:40		1.015	12.0	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:10		20.3	57.2	mg/L	0.609	8.12	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:53		1.015	0.220	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:27		20.3	166	mg/L	1.4007	8.12	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:27		20.3	57.3	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:53		1.015	0.0309	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:27		20.3	120	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:53		1	25.3	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:53		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:27		20.3	59.4	mg/L	0.609	8.12	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.122	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.283	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.0334	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.0000700	mg/L	0.000068	0.000203	J
* Chromium, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.000232	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.228	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 18:25		92.365	20.4	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.00126	mg/L	0.000068	0.000203	
* Potassium, Total	2/1/22 08:51	2/1/22 15:13		1.015	9.67	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-13H

Location Code: WMWGORG
Collected: 1/26/22 11:17
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01774

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:13		1.015	0.000694	mg/L	0.000508	0.001015	J
* Thallium, Total	2/1/22 08:51	2/1/22 15:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.142	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.272	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.0332	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.000418	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.000292	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.288	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:13		92.365	22.3	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.00126	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	8.89	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	0.000964	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:57	2/1/22 14:57		1	0.291	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	2/2/22 10:15	2/2/22 12:30		1	197	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1360	mg/L		100	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	197	mg/L			
Carbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	0.08	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 17:24	2/1/22 17:24		1	3.54	mg/L	1.00	2	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-13H

Location Code: WMWGORG
Collected: 1/26/22 11:17
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01774

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:53	1/28/22 10:53		1	10.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:46	1/28/22 12:46		1	0.208	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:16	2/7/22 15:16		32	883	mg/L	16.00	32	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/26/22 11:14	1/26/22 11:14			1543.63	uS/cm			FA
pH	1/26/22 11:14	1/26/22 11:14			6.08	SU			FA
Temperature	1/26/22 11:14	1/26/22 11:14			20.26	C			FA
Turbidity	1/26/22 11:14	1/26/22 11:14			2.51	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 11:17
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-13H

Laboratory ID Number: BC01774

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 11:17
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-13H

Laboratory ID Number: BC01774

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 11:17
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-13H

Laboratory ID Number: BC01774

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01774	Alkalinity, Total as CaCO3	mg/L					179	47.0	45.0 to 55.0			9.57	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-13H DUP

Location Code: WMWGORG
Collected: 1/26/22 11:17
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01775

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:42		1.015	0.205	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:12		20.3	161	mg/L	1.4007	8.12	
* Iron, Total	2/3/22 12:00	2/4/22 12:12		20.3	56.5	mg/L	0.1624	0.812	
* Lithium, Total	2/3/22 12:00	2/4/22 10:42		1.015	0.0298	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:12		20.3	113	mg/L	0.4263	8.12	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:42		1	25.5	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:42		1.015	11.9	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:12		20.3	57.8	mg/L	0.609	8.12	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:55		1.015	0.222	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:29		20.3	168	mg/L	1.4007	8.12	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:29		20.3	56.2	mg/L	0.1624	0.812	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:55		1.015	0.0309	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:29		20.3	122	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:55		1	25.3	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:55		1.015	11.8	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:29		20.3	60.6	mg/L	0.609	8.12	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:17		1.015	0.125	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 15:17		1.015	0.283	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:17		1.015	0.0351	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 15:17		1.015	0.000272	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:17		1.015	0.230	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 18:29		92.365	20.9	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:17		1.015	0.00145	mg/L	0.000068	0.000203	
* Potassium, Total	2/1/22 08:51	2/1/22 15:17		1.015	9.64	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-13H DUP

Location Code: WMWGORG
Collected: 1/26/22 11:17
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01775

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:17		1.015	0.000834	mg/L	0.000508	0.001015	J
* Thallium, Total	2/1/22 08:51	2/1/22 15:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.142	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.260	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.0310	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.000410	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.000283	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.288	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:17		92.365	25.6	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.00125	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	8.77	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	0.000986	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 14:59	2/1/22 14:59		1	0.257	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	2/2/22 10:15	2/2/22 12:30		1	197	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1410	mg/L		100	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	197	mg/L			
Carbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	0.20	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 17:43	2/1/22 17:43		1	3.65	mg/L	1.00	2	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-13H DUP

Location Code: WMWGORG
Collected: 1/26/22 11:17
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01775

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:54	1/28/22 10:54		1	10.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:47	1/28/22 12:47		1	0.212	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:17	2/7/22 15:17		32	918	mg/L	16.00	32	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/26/22 11:14	1/26/22 11:14			1543.63	uS/cm			FA
pH	1/26/22 11:14	1/26/22 11:14			6.08	SU			FA
Temperature	1/26/22 11:14	1/26/22 11:14			20.26	C			FA
Turbidity	1/26/22 11:14	1/26/22 11:14			2.51	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 11:17
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-13H DUP

Laboratory ID Number: BC01775

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 11:17
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-13H DUP

Laboratory ID Number: BC01775

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 11:17
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-13H DUP

Laboratory ID Number: BC01775

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01774	Alkalinity, Total as CaCO3	mg/L					179	47.0	45.0 to 55.0			9.57	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01775	Solids, Dissolved	mg/L	0.0000	25.0			1340	50.0	40.0 to 60.0			5.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-9V

Location Code: WMWGORG
Collected: 1/26/22 13:20
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01776

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:44		1.015	0.110	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:14		20.3	417	mg/L	1.4007	8.12	
* Iron, Total	2/3/22 12:00	2/4/22 10:44		1.015	1.09	mg/L	0.008120	0.0406	
* Lithium, Total	2/3/22 12:00	2/4/22 10:44		1.015	0.312	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:14		20.3	169	mg/L	0.4263	8.12	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:44		1	29.7	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:44		1.015	13.9	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:14		20.3	290	mg/L	0.609	8.12	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:57		1.015	0.104	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:31		20.3	438	mg/L	1.4007	8.12	
* Iron, Dissolved	2/3/22 12:00	2/4/22 09:57		1.015	0.873	mg/L	0.008120	0.0406	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 09:57		1.015	0.327	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:31		20.3	178	mg/L	0.4263	8.12	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:57		1	29.7	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:57		1.015	13.9	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:31		20.3	300	mg/L	0.609	8.12	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/1/22 08:51	2/1/22 15:20		1.015	0.00128	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:20		1.015	0.0120	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	2/1/22 08:51	2/1/22 15:20		1.015	0.000541	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 18:32		10.15	1.55	mg/L	0.000680	0.00203	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:20		1.015	0.000299	mg/L	0.000068	0.000203	
* Potassium, Total	2/1/22 08:51	2/1/22 15:20		1.015	7.74	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-9V

Location Code: WMWGORG
Collected: 1/26/22 13:20
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01776

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 15:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	0.000816	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	0.0104	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	0.000221	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	0.000360	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:20		10.15	1.44	mg/L	0.000680	0.00203	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	0.000189	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	7.38	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 15:01	2/1/22 15:01		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	2/2/22 10:15	2/2/22 12:30		1	329	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	2890	mg/L		178.6	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	328	mg/L			
Carbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	0.59	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 18:01	2/1/22 18:01		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-9V

Location Code: WMWGORG
Collected: 1/26/22 13:20
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01776

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:55	1/28/22 10:55		5	57.2	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:48	1/28/22 12:48		1	0.155	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:18	2/7/22 15:18		50	1820	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/26/22 13:15	1/26/22 13:15			3210.84	uS/cm			FA
pH	1/26/22 13:15	1/26/22 13:15			6.89	SU			FA
Temperature	1/26/22 13:15	1/26/22 13:15			19	C			FA
Turbidity	1/26/22 13:15	1/26/22 13:15			0.42	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 13:20
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-9V

Laboratory ID Number: BC01776

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 13:20
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-9V

Laboratory ID Number: BC01776

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 13:20
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-9V

Laboratory ID Number: BC01776

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01774	Alkalinity, Total as CaCO3	mg/L					179	47.0	45.0 to 55.0			9.57	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-9H

Location Code: WMWGORG
Collected: 1/26/22 15:25
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01777

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:46		1.015	5.87	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:16		20.3	300	mg/L	1.4007	8.12	RA
* Iron, Total	2/3/22 12:00	2/4/22 12:16		20.3	16.0	mg/L	0.1624	0.812	
* Lithium, Total	2/3/22 12:00	2/4/22 10:46		1.015	0.115	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:16		20.3	205	mg/L	0.4263	8.12	RA
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:46		1	20.5	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:46		1.015	9.56	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:16		20.3	118	mg/L	0.609	8.12	RA
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 09:59		1.015	5.84	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:33		20.3	318	mg/L	1.4007	8.12	RA
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:33		20.3	16.4	mg/L	0.1624	0.812	RA
* Lithium, Dissolved	2/3/22 12:00	2/4/22 12:44		1.015	0.115	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:33		20.3	219	mg/L	0.4263	8.12	RA
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 09:59		1	20.7	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 09:59		1.015	9.65	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:33		20.3	127	mg/L	0.609	8.12	RA
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.223	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.00113	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.0146	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.000630	mg/L	0.000406	0.001015	J
* Cadmium, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.000240	mg/L	0.000068	0.000203	
* Chromium, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.000243	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.141	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.000125	mg/L	0.000068	0.000203	J
* Manganese, Total	2/1/22 08:51	2/3/22 18:36		92.365	20.6	mg/L	0.006188	0.018473	RA
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/1/22 08:51	2/1/22 15:24		1.015	7.96	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-9H

Location Code: WMWGORG
Collected: 1/26/22 15:25
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01777

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.00129	mg/L	0.000508	0.001015	
* Thallium, Total	2/1/22 08:51	2/1/22 15:24		1.015	0.000222	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.209	mg/L	0.004060	0.01015	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.00103	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.0134	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.000683	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.000304	mg/L	0.000068	0.000203	
* Chromium, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.149	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.000105	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:24		92.365	19.9	mg/L	0.006188	0.018473	RA
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	7.36	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.00126	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 12:55		1.015	0.000235	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 15:03	2/1/22 15:03		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	2/2/22 10:15	2/2/22 12:30		1	49.1	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	2490	mg/L		147.1	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	49.0	mg/L			
Carbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	0.12	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 18:19	2/1/22 18:19		1	1.29	mg/L	1.00	2	J

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-9H

Location Code: WMWGORG
Collected: 1/26/22 15:25
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01777

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:57	1/28/22 10:57		5	59.3	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 12:49	1/28/22 12:49		1	0.117	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:27	2/7/22 15:27		50	1660	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/26/22 15:22	1/26/22 15:22			2589.92	uS/cm			FA
pH	1/26/22 15:22	1/26/22 15:22			5.35	SU			FA
Temperature	1/26/22 15:22	1/26/22 15:22			20.94	C			FA
Turbidity	1/26/22 15:22	1/26/22 15:22			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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 15:25
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-9H

Laboratory ID Number: BC01777

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	0.305	0.310	0.0972	0.0850 to 0.115	96.0	70.0 to 130	1.63	20.0
BC01777	Aluminum, Total	mg/L	0.000470	0.00880	0.100	0.323	0.323	0.103	0.0850 to 0.115	100	70.0 to 130	0.00	20.0
BC01777	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0946	0.0947	0.0892	0.0850 to 0.115	94.6	70.0 to 130	0.106	20.0
BC01777	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.110	0.109	0.102	0.0850 to 0.115	110	70.0 to 130	0.913	20.0
BC01777	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.104	0.104	0.104	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC01777	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.103	0.106	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC01777	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.110	0.113	0.0978	0.0850 to 0.115	96.6	70.0 to 130	2.69	20.0
BC01777	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.124	0.125	0.113	0.0850 to 0.115	109	70.0 to 130	0.803	20.0
BC01777	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0926	0.0941	0.0989	0.0850 to 0.115	91.9	70.0 to 130	1.61	20.0
BC01777	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0873	0.0852	0.0927	0.0850 to 0.115	86.7	70.0 to 130	2.43	20.0
BC01777	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	6.75	6.82	1.03	0.850 to 1.15	91.0	70.0 to 130	1.03	20.0
BC01777	Boron, Total	mg/L	0.00026	0.0650	1.00	6.81	6.87	1.00	0.850 to 1.15	94.0	70.0 to 130	0.877	20.0
BC01777	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.0966	0.0966	0.0984	0.0850 to 0.115	96.3	70.0 to 130	0.00	20.0
BC01777	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	318	320	5.03	4.25 to 5.75	0.00	70.0 to 130	0.627	20.0
BC01777	Calcium, Total	mg/L	-0.00198	0.152	5.00	304	313	4.80	4.25 to 5.75	80.0	70.0 to 130	2.92	20.0
BC01777	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0980	0.0981	0.101	0.0850 to 0.115	98.0	70.0 to 130	0.102	20.0
BC01777	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.100	0.0997	0.101	0.0850 to 0.115	99.8	70.0 to 130	0.300	20.0
BC01777	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.246	0.248	0.105	0.0850 to 0.115	97.0	70.0 to 130	0.810	20.0
BC01777	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.237	0.234	0.102	0.0850 to 0.115	96.0	70.0 to 130	1.27	20.0
BC01777	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	16.3	16.4	0.202	0.170 to 0.230	-50.0	70.0 to 130	0.612	20.0
BC01777	Iron, Total	mg/L	-0.00024	0.0176	0.2	16.2	16.2	0.198	0.170 to 0.230	100	70.0 to 130	0.00	20.0
BC01777	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.107	0.107	0.111	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC01777	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.0986	0.0970	0.102	0.0850 to 0.115	98.5	70.0 to 130	1.64	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/26/22 15:25
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-9H

Laboratory ID Number: BC01777

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01777	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.314	0.329	0.201	0.170 to 0.230	99.5	70.0 to 130	4.67	20.0
BC01777	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.313	0.326	0.198	0.170 to 0.230	99.0	70.0 to 130	4.07	20.0
BC01777	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	218	223	5.19	4.25 to 5.75	-20.0	70.0 to 130	2.27	20.0
BC01777	Magnesium, Total	mg/L	0.000303	0.0462	5.00	208	218	5.01	4.25 to 5.75	60.0	70.0 to 130	4.69	20.0
BC01777	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	19.5	19.8	0.112	0.0850 to 0.115	-400	70.0 to 130	1.53	20.0
BC01777	Manganese, Total	mg/L	0.000015	0.000147	0.100	20.6	20.3	0.105	0.0850 to 0.115	0.00	70.0 to 130	1.47	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01777	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0973	0.0967	0.0973	0.0850 to 0.115	97.3	70.0 to 130	0.619	20.0
BC01777	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0991	0.101	0.103	0.0850 to 0.115	99.1	70.0 to 130	1.90	20.0
BC01777	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	17.2	17.0	9.75	8.50 to 11.5	98.4	70.0 to 130	1.17	20.0
BC01777	Potassium, Total	mg/L	0.0887	0.367	10.0	18.0	18.0	10.6	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BC01777	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.102	0.102	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC01777	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.103	0.101	0.103	0.0850 to 0.115	102	70.0 to 130	1.96	20.0
BC01777	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	85.0	70.0 to 130	0.948	20.0
BC01777	Silicon, Total	mg/L	0.00043	0.0440	1.00	10.5	10.6	1.02	0.850 to 1.15	94.0	70.0 to 130	0.948	20.0
BC01777	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	129	132	5.07	4.25 to 5.75	40.0	70.0 to 130	2.30	20.0
BC01777	Sodium, Total	mg/L	0.00603	0.0660	5.00	121	128	4.99	4.25 to 5.75	60.0	70.0 to 130	5.62	20.0
BC01777	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.107	0.104	0.105	0.0850 to 0.115	107	70.0 to 130	2.84	20.0
BC01777	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0966	0.0961	0.0991	0.0850 to 0.115	96.4	70.0 to 130	0.519	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/26/22 15:25
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-9H

Laboratory ID Number: BC01777

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01774	Alkalinity, Total as CaCO3	mg/L					179	47.0	45.0 to 55.0			9.57	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01777	Fluoride	mg/L	0.018	0.100	2.50	2.37	0.101	2.50	2.25 to 2.75	90.1	80.0 to 120	14.7	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12V

Location Code: WMWGORG
Collected: 1/27/22 09:00
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01778

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:55		1.015	1.52	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:25		101.5	347	mg/L	7.0035	40.6	
* Iron, Total	2/3/22 12:00	2/4/22 12:25		101.5	33.2	mg/L	0.8120	4.06	
* Lithium, Total	2/3/22 12:00	2/4/22 10:55		1.015	0.303	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:25		101.5	213	mg/L	2.1315	40.6	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:55		1	27.4	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:55		1.015	12.8	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:25		101.5	390	mg/L	3.045	40.6	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 10:08		1.015	1.52	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:42		101.5	345	mg/L	7.0035	40.6	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:42		101.5	35.1	mg/L	0.8120	4.06	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 10:08		1.015	0.285	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:42		101.5	216	mg/L	2.1315	40.6	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 10:08		1	27.2	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 10:08		1.015	12.7	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:42		101.5	368	mg/L	3.045	40.6	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:46		1.015	0.00600	mg/L	0.004060	0.01015	J
* Arsenic, Total	2/1/22 08:51	2/1/22 15:46		1.015	0.000665	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:46		1.015	0.0125	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:46		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 15:46		1.015	0.000252	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:46		1.015	0.000216	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 18:57		92.365	22.1	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:46		1.015	0.00268	mg/L	0.000068	0.000203	
* Potassium, Total	2/1/22 08:51	2/1/22 15:46		1.015	7.49	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12V

Location Code: WMWGORG
Collected: 1/27/22 09:00
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01778

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 15:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	0.000476	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	0.0106	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	0.000162	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:45		92.365	22.0	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	0.00183	mg/L	0.000068	0.000203	
* Potassium, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	6.94	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/2/22 09:05	2/3/22 13:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 15:05	2/1/22 15:05		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	2/2/22 10:15	2/2/22 12:30		1	307	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	3170	mg/L		208.3	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	306	mg/L			
Carbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	0.74	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 18:37	2/1/22 18:37		1	1.31	mg/L	1.00	2	J

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-12V

Location Code: WMWGORG
Collected: 1/27/22 09:00
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01778

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:58	1/28/22 10:58		10	171	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 13:02	1/28/22 13:02		1	0.329	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:21	2/7/22 15:21		80	1990	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/27/22 08:56	1/27/22 08:56			3900.53	uS/cm			FA
pH	1/27/22 08:56	1/27/22 08:56			6.19	SU			FA
Temperature	1/27/22 08:56	1/27/22 08:56			20.23	C			FA
Turbidity	1/27/22 08:56	1/27/22 08:56			0.58	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 09:00
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-12V

Laboratory ID Number: BC01778

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	30.3	30.3	0.0972	0.0850 to 0.115	0.00	70.0 to 130	0.00	20.0
BC01784	Aluminum, Total	mg/L	0.000470	0.00880	0.100	30.2	30.5	0.103	0.0850 to 0.115	500	70.0 to 130	0.988	20.0
BC01784	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0957	0.0983	0.0892	0.0850 to 0.115	95.7	70.0 to 130	2.68	20.0
BC01784	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.101	0.102	0.102	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC01784	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.103	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	0.966	20.0
BC01784	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.0984	0.106	0.0850 to 0.115	101	70.0 to 130	5.53	20.0
BC01784	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.111	0.113	0.0978	0.0850 to 0.115	99.6	70.0 to 130	1.79	20.0
BC01784	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.123	0.115	0.113	0.0850 to 0.115	110	70.0 to 130	6.72	20.0
BC01784	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0966	0.0980	0.0989	0.0850 to 0.115	88.4	70.0 to 130	1.44	20.0
BC01784	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0916	0.0883	0.0927	0.0850 to 0.115	83.9	70.0 to 130	3.67	20.0
BC01784	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	7.08	7.10	1.03	0.850 to 1.15	109	70.0 to 130	0.282	20.0
BC01784	Boron, Total	mg/L	0.00026	0.0650	1.00	7.15	7.12	1.00	0.850 to 1.15	105	70.0 to 130	0.420	20.0
BC01784	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.100	0.101	0.0984	0.0850 to 0.115	96.7	70.0 to 130	0.995	20.0
BC01784	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.105	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	3.88	20.0
BC01784	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	184	185	5.03	4.25 to 5.75	140	70.0 to 130	0.542	20.0
BC01784	Calcium, Total	mg/L	-0.00198	0.152	5.00	177	178	4.80	4.25 to 5.75	-80.0	70.0 to 130	0.563	20.0
BC01784	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0963	0.0992	0.101	0.0850 to 0.115	95.2	70.0 to 130	2.97	20.0
BC01784	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.101	0.0962	0.101	0.0850 to 0.115	99.9	70.0 to 130	4.87	20.0
BC01784	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.539	0.557	0.105	0.0850 to 0.115	92.0	70.0 to 130	3.28	20.0
BC01784	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.502	0.489	0.102	0.0850 to 0.115	96.0	70.0 to 130	2.62	20.0
BC01784	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	20.4	20.6	0.202	0.170 to 0.230	0.00	70.0 to 130	0.976	20.0
BC01784	Iron, Total	mg/L	-0.00024	0.0176	0.2	20.4	20.1	0.198	0.170 to 0.230	-100	70.0 to 130	1.48	20.0
BC01784	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.109	0.106	0.111	0.0850 to 0.115	108	70.0 to 130	2.79	20.0
BC01784	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.101	0.0977	0.102	0.0850 to 0.115	100	70.0 to 130	3.32	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 09:00
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-12V

Laboratory ID Number: BC01778

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.830	0.857	0.201	0.170 to 0.230	91.5	70.0 to 130	3.20	20.0
BC01784	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.879	0.859	0.198	0.170 to 0.230	104	70.0 to 130	2.30	20.0
BC01784	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	167	165	5.19	4.25 to 5.75	140	70.0 to 130	1.20	20.0
BC01784	Magnesium, Total	mg/L	0.000303	0.0462	5.00	159	160	5.01	4.25 to 5.75	-20.0	70.0 to 130	0.627	20.0
BC01784	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	18.4	18.3	0.112	0.0850 to 0.115	-100	70.0 to 130	0.545	20.0
BC01784	Manganese, Total	mg/L	0.000015	0.000147	0.100	19.1	19.0	0.105	0.0850 to 0.115	200	70.0 to 130	0.525	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01784	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0946	0.0941	0.0973	0.0850 to 0.115	94.6	70.0 to 130	0.530	20.0
BC01784	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0996	0.0977	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.93	20.0
BC01784	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	13.6	14.2	9.75	8.50 to 11.5	89.9	70.0 to 130	4.32	20.0
BC01784	Potassium, Total	mg/L	0.0887	0.367	10.0	15.4	15.6	10.6	8.50 to 11.5	102	70.0 to 130	1.29	20.0
BC01784	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.108	0.108	0.103	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BC01784	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.105	0.101	0.103	0.0850 to 0.115	96.8	70.0 to 130	3.88	20.0
BC01784	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	27.5	27.6	1.02	0.850 to 1.15	100	70.0 to 130	0.363	20.0
BC01784	Silicon, Total	mg/L	0.00043	0.0440	1.00	27.4	27.0	1.02	0.850 to 1.15	90.0	70.0 to 130	1.47	20.0
BC01784	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	28.8	29.8	5.07	4.25 to 5.75	88.0	70.0 to 130	3.41	20.0
BC01784	Sodium, Total	mg/L	0.00603	0.0660	5.00	30.5	29.7	4.99	4.25 to 5.75	106	70.0 to 130	2.66	20.0
BC01784	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01784	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0980	0.0956	0.0991	0.0850 to 0.115	97.8	70.0 to 130	2.48	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/27/22 09:00
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-12V

Laboratory ID Number: BC01778

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01774	Alkalinity, Total as CaCO3	mg/L					179	47.0	45.0 to 55.0			9.57	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01781	Fluoride	mg/L	0.0363	0.100	2.50	2.50	0.0227	2.39	2.25 to 2.75	100	80.0 to 120	0.00	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-8

Location Code: WMWGORG
Collected: 1/27/22 10:00
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01779

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:57		1.015	2.76	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:27		101.5	491	mg/L	7.0035	40.6	
* Iron, Total	2/3/22 12:00	2/4/22 12:27		101.5	27.9	mg/L	0.8120	4.06	
* Lithium, Total	2/3/22 12:00	2/4/22 10:57		1.015	0.185	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:27		101.5	301	mg/L	2.1315	40.6	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:57		1	15.3	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:57		1.015	7.13	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:27		101.5	164	mg/L	3.045	40.6	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 10:10		1.015	2.81	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:44		101.5	494	mg/L	7.0035	40.6	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:44		101.5	27.7	mg/L	0.8120	4.06	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 10:10		1.015	0.179	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:44		101.5	298	mg/L	2.1315	40.6	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 10:10		1	15.2	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 10:10		1.015	7.12	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 11:44		101.5	161	mg/L	3.045	40.6	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:50		1.015	0.176	mg/L	0.004060	0.01015	
* Arsenic, Total	2/1/22 08:51	2/1/22 15:50		1.015	0.000275	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 15:50		1.015	0.0238	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 15:50		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 15:50		1.015	0.000456	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:50		1.015	0.000674	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 15:50		1.015	0.000150	mg/L	0.000068	0.000203	J
* Manganese, Total	2/1/22 08:51	2/3/22 19:01		92.365	17.5	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:50		1.015	0.000122	mg/L	0.000068	0.000203	J
* Potassium, Total	2/1/22 08:51	2/1/22 15:50		1.015	8.22	mg/L	0.169505	0.5075	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-8

Location Code: WMWGORG
Collected: 1/27/22 10:00
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01779

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 15:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 15:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	0.000187	mg/L	0.000068	0.000203	J
* Barium, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	0.0192	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	0.000187	mg/L	0.000068	0.000203	J
* Lead, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:49		92.365	17.2	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	0.000111	mg/L	0.000068	0.000203	J
* Potassium, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	7.69	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	2/2/22 09:05	2/3/22 13:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 22:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 15:07	2/1/22 15:07		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	2/2/22 10:15	2/2/22 12:30		1	523	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	3290	mg/L		208.3	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	521	mg/L			
Carbonate Alkalinity, (calc.)	2/2/22 10:15	2/2/22 12:30		1	1.91	mg/L			
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 18:57	2/1/22 18:57		1	2.82	mg/L	1.00	2	

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

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-8

Location Code: WMWGORG
Collected: 1/27/22 10:00
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01779

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 10:59	1/28/22 10:59		10	122	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 13:03	1/28/22 13:03		1	0.179	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:22	2/7/22 15:22		80	2000	mg/L	40.00	80	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	1/27/22 09:56	1/27/22 09:56			3489.16	uS/cm			FA
pH	1/27/22 09:56	1/27/22 09:56			6.85	SU			FA
Temperature	1/27/22 09:56	1/27/22 09:56			21.13	C			FA
Turbidity	1/27/22 09:56	1/27/22 09:56			2.64	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 10:00
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-8

Laboratory ID Number: BC01779

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	30.3	30.3	0.0972	0.0850 to 0.115	0.00	70.0 to 130	0.00	20.0
BC01784	Aluminum, Total	mg/L	0.000470	0.00880	0.100	30.2	30.5	0.103	0.0850 to 0.115	500	70.0 to 130	0.988	20.0
BC01784	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0957	0.0983	0.0892	0.0850 to 0.115	95.7	70.0 to 130	2.68	20.0
BC01784	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.101	0.102	0.102	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC01784	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.103	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	0.966	20.0
BC01784	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.0984	0.106	0.0850 to 0.115	101	70.0 to 130	5.53	20.0
BC01784	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.111	0.113	0.0978	0.0850 to 0.115	99.6	70.0 to 130	1.79	20.0
BC01784	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.123	0.115	0.113	0.0850 to 0.115	110	70.0 to 130	6.72	20.0
BC01784	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0966	0.0980	0.0989	0.0850 to 0.115	88.4	70.0 to 130	1.44	20.0
BC01784	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0916	0.0883	0.0927	0.0850 to 0.115	83.9	70.0 to 130	3.67	20.0
BC01784	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	7.08	7.10	1.03	0.850 to 1.15	109	70.0 to 130	0.282	20.0
BC01784	Boron, Total	mg/L	0.00026	0.0650	1.00	7.15	7.12	1.00	0.850 to 1.15	105	70.0 to 130	0.420	20.0
BC01784	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.100	0.101	0.0984	0.0850 to 0.115	96.7	70.0 to 130	0.995	20.0
BC01784	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.105	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	3.88	20.0
BC01784	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	184	185	5.03	4.25 to 5.75	140	70.0 to 130	0.542	20.0
BC01784	Calcium, Total	mg/L	-0.00198	0.152	5.00	177	178	4.80	4.25 to 5.75	-80.0	70.0 to 130	0.563	20.0
BC01784	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0963	0.0992	0.101	0.0850 to 0.115	95.2	70.0 to 130	2.97	20.0
BC01784	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.101	0.0962	0.101	0.0850 to 0.115	99.9	70.0 to 130	4.87	20.0
BC01784	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.539	0.557	0.105	0.0850 to 0.115	92.0	70.0 to 130	3.28	20.0
BC01784	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.502	0.489	0.102	0.0850 to 0.115	96.0	70.0 to 130	2.62	20.0
BC01784	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	20.4	20.6	0.202	0.170 to 0.230	0.00	70.0 to 130	0.976	20.0
BC01784	Iron, Total	mg/L	-0.00024	0.0176	0.2	20.4	20.1	0.198	0.170 to 0.230	-100	70.0 to 130	1.48	20.0
BC01784	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.109	0.106	0.111	0.0850 to 0.115	108	70.0 to 130	2.79	20.0
BC01784	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.101	0.0977	0.102	0.0850 to 0.115	100	70.0 to 130	3.32	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 10:00
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-8

Laboratory ID Number: BC01779

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.830	0.857	0.201	0.170 to 0.230	91.5	70.0 to 130	3.20	20.0
BC01784	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.879	0.859	0.198	0.170 to 0.230	104	70.0 to 130	2.30	20.0
BC01784	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	167	165	5.19	4.25 to 5.75	140	70.0 to 130	1.20	20.0
BC01784	Magnesium, Total	mg/L	0.000303	0.0462	5.00	159	160	5.01	4.25 to 5.75	-20.0	70.0 to 130	0.627	20.0
BC01784	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	18.4	18.3	0.112	0.0850 to 0.115	-100	70.0 to 130	0.545	20.0
BC01784	Manganese, Total	mg/L	0.000015	0.000147	0.100	19.1	19.0	0.105	0.0850 to 0.115	200	70.0 to 130	0.525	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01784	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0946	0.0941	0.0973	0.0850 to 0.115	94.6	70.0 to 130	0.530	20.0
BC01784	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0996	0.0977	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.93	20.0
BC01784	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	13.6	14.2	9.75	8.50 to 11.5	89.9	70.0 to 130	4.32	20.0
BC01784	Potassium, Total	mg/L	0.0887	0.367	10.0	15.4	15.6	10.6	8.50 to 11.5	102	70.0 to 130	1.29	20.0
BC01784	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.108	0.108	0.103	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BC01784	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.105	0.101	0.103	0.0850 to 0.115	96.8	70.0 to 130	3.88	20.0
BC01784	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	27.5	27.6	1.02	0.850 to 1.15	100	70.0 to 130	0.363	20.0
BC01784	Silicon, Total	mg/L	0.00043	0.0440	1.00	27.4	27.0	1.02	0.850 to 1.15	90.0	70.0 to 130	1.47	20.0
BC01784	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	28.8	29.8	5.07	4.25 to 5.75	88.0	70.0 to 130	3.41	20.0
BC01784	Sodium, Total	mg/L	0.00603	0.0660	5.00	30.5	29.7	4.99	4.25 to 5.75	106	70.0 to 130	2.66	20.0
BC01784	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01784	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0980	0.0956	0.0991	0.0850 to 0.115	97.8	70.0 to 130	2.48	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

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

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/27/22 10:00
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-8

Laboratory ID Number: BC01779

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01774	Alkalinity, Total as CaCO3	mg/L					179	47.0	45.0 to 55.0			9.57	10.0
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01781	Fluoride	mg/L	0.0363	0.100	2.50	2.50	0.0227	2.39	2.25 to 2.75	100	80.0 to 120	0.00	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	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.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Equipment Blank-1

Location Code: WMWGORGEB
Collected: 1/27/22 10:40
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01780

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 10:59		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/3/22 12:00	2/4/22 10:59		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/3/22 12:00	2/4/22 10:59		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/3/22 12:00	2/4/22 10:59		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/3/22 12:00	2/4/22 10:59		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	2/3/22 12:00	2/4/22 10:59		1	Not Detected	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 10:59		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	2/3/22 12:00	2/4/22 10:59		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 15:53		1.015	0.000245	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 19:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 15:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 23:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/1/22 15:08	2/1/22 15:08		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Equipment Blank-1

Location Code: WMWGORGEB
Collected: 1/27/22 10:40
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01780

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	2/1/22 19:14	2/1/22 19:14		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/28/22 11:00	1/28/22 11:00		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/28/22 13:05	1/28/22 13:05		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 15:23	2/7/22 15:23		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORGEB
Sample Date: 1/27/22 10:40
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum Equipment Blank-1

Laboratory ID Number: BC01780

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Aluminum, Total	mg/L	0.000470	0.00880	0.100	30.2	30.5	0.103	0.0850 to 0.115	500	70.0 to 130	0.988	20.0
BC01784	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.101	0.102	0.102	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC01784	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.0984	0.106	0.0850 to 0.115	101	70.0 to 130	5.53	20.0
BC01784	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.123	0.115	0.113	0.0850 to 0.115	110	70.0 to 130	6.72	20.0
BC01784	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0916	0.0883	0.0927	0.0850 to 0.115	83.9	70.0 to 130	3.67	20.0
BC01784	Boron, Total	mg/L	0.00026	0.0650	1.00	7.15	7.12	1.00	0.850 to 1.15	105	70.0 to 130	0.420	20.0
BC01784	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.105	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	3.88	20.0
BC01784	Calcium, Total	mg/L	-0.00198	0.152	5.00	177	178	4.80	4.25 to 5.75	-80.0	70.0 to 130	0.563	20.0
BC01784	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.101	0.0962	0.101	0.0850 to 0.115	99.9	70.0 to 130	4.87	20.0
BC01784	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.502	0.489	0.102	0.0850 to 0.115	96.0	70.0 to 130	2.62	20.0
BC01784	Iron, Total	mg/L	-0.00024	0.0176	0.2	20.4	20.1	0.198	0.170 to 0.230	-100	70.0 to 130	1.48	20.0
BC01784	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.101	0.0977	0.102	0.0850 to 0.115	100	70.0 to 130	3.32	20.0
BC01784	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.879	0.859	0.198	0.170 to 0.230	104	70.0 to 130	2.30	20.0
BC01784	Magnesium, Total	mg/L	0.000303	0.0462	5.00	159	160	5.01	4.25 to 5.75	-20.0	70.0 to 130	0.627	20.0
BC01784	Manganese, Total	mg/L	0.000015	0.000147	0.100	19.1	19.0	0.105	0.0850 to 0.115	200	70.0 to 130	0.525	20.0
BC01780	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00399	0.00402	0.00398	0.00340 to 0.00460	99.8	70.0 to 130	0.749	20.0
BC01784	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0996	0.0977	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.93	20.0
BC01784	Potassium, Total	mg/L	0.0887	0.367	10.0	15.4	15.6	10.6	8.50 to 11.5	102	70.0 to 130	1.29	20.0
BC01784	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.105	0.101	0.103	0.0850 to 0.115	96.8	70.0 to 130	3.88	20.0
BC01784	Silicon, Total	mg/L	0.00043	0.0440	1.00	27.4	27.0	1.02	0.850 to 1.15	90.0	70.0 to 130	1.47	20.0
BC01784	Sodium, Total	mg/L	0.00603	0.0660	5.00	30.5	29.7	4.99	4.25 to 5.75	106	70.0 to 130	2.66	20.0
BC01784	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0980	0.0956	0.0991	0.0850 to 0.115	97.8	70.0 to 130	2.48	20.0
BC01780	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.1	10.0	25.1		101	80.0 to 120	0.995	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORGEB
Sample Date: 1/27/22 10:40
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum Equipment Blank-1

Laboratory ID Number: BC01780

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01780	Chloride	mg/L	-0.028	1.00	10.0	9.87	0.156	10.2	9.00 to 11.0	98.7	80.0 to 120	0.00	20.0
BC01781	Fluoride	mg/L	0.0363	0.100	2.50	2.50	0.0227	2.39	2.25 to 2.75	100	80.0 to 120	0.00	20.0
BC01780	Nitrogen, Nitrate/Nitrite	mg/L as N	0.02	0.200	2.00	2.04	0.052	1.90	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01780	Sulfate	mg/L	-0.117	1.00	20.0	18.0	-0.356	18.5	18.0 to 22.0	90.0	80.0 to 120	0.00	20.0

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Field Blank-2

Location Code: WMWGORGFB
Collected: 1/27/22 08:30
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01781

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 11:01		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	2/3/22 12:00	2/4/22 11:01		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	2/3/22 12:00	2/4/22 11:01		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	2/3/22 12:00	2/4/22 11:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	2/3/22 12:00	2/4/22 11:01		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	2/3/22 12:00	2/4/22 11:01		1	Not Detected	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 11:01		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	2/3/22 12:00	2/4/22 11:01		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.004060	0.01015	U
* Arsenic, Total	2/1/22 08:51	2/1/22 15:57		1.015	0.000106	mg/L	0.000068	0.000203	J
* Barium, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	2/1/22 08:51	2/1/22 15:57		1.015	0.000267	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	2/1/22 08:51	2/3/22 19:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	2/1/22 08:51	2/1/22 15:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 23:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/2/22 15:50	2/2/22 15:50		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Field Blank-2

Location Code: WMWGORGFB
Collected: 1/27/22 08:30
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01781

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	2/1/22 20:22	2/1/22 20:22		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	1/28/22 11:22	1/28/22 11:22		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	1/28/22 13:26	1/28/22 13:26		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	2/7/22 15:56	2/7/22 15:56		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORGFB
Sample Date: 1/27/22 08:30
Customer ID:
Delivery Date: 1/27/22 15:16

Description:Gorgas Gypsum Field Blank-2

Laboratory ID Number: BC01781

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Aluminum, Total	mg/L	0.000470	0.00880	0.100	30.2	30.5	0.103	0.0850 to 0.115	500	70.0 to 130	0.988	20.0
BC01784	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.101	0.102	0.102	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC01784	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.0984	0.106	0.0850 to 0.115	101	70.0 to 130	5.53	20.0
BC01784	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.123	0.115	0.113	0.0850 to 0.115	110	70.0 to 130	6.72	20.0
BC01784	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0916	0.0883	0.0927	0.0850 to 0.115	83.9	70.0 to 130	3.67	20.0
BC01784	Boron, Total	mg/L	0.00026	0.0650	1.00	7.15	7.12	1.00	0.850 to 1.15	105	70.0 to 130	0.420	20.0
BC01784	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.105	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	3.88	20.0
BC01784	Calcium, Total	mg/L	-0.00198	0.152	5.00	177	178	4.80	4.25 to 5.75	-80.0	70.0 to 130	0.563	20.0
BC01784	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.101	0.0962	0.101	0.0850 to 0.115	99.9	70.0 to 130	4.87	20.0
BC01784	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.502	0.489	0.102	0.0850 to 0.115	96.0	70.0 to 130	2.62	20.0
BC01784	Iron, Total	mg/L	-0.00024	0.0176	0.2	20.4	20.1	0.198	0.170 to 0.230	-100	70.0 to 130	1.48	20.0
BC01784	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.101	0.0977	0.102	0.0850 to 0.115	100	70.0 to 130	3.32	20.0
BC01784	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.879	0.859	0.198	0.170 to 0.230	104	70.0 to 130	2.30	20.0
BC01784	Magnesium, Total	mg/L	0.000303	0.0462	5.00	159	160	5.01	4.25 to 5.75	-20.0	70.0 to 130	0.627	20.0
BC01784	Manganese, Total	mg/L	0.000015	0.000147	0.100	19.1	19.0	0.105	0.0850 to 0.115	200	70.0 to 130	0.525	20.0
BC01784	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00403	0.00401	0.00398	0.00340 to 0.00460	101	70.0 to 130	0.498	20.0
BC01784	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0996	0.0977	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.93	20.0
BC01784	Potassium, Total	mg/L	0.0887	0.367	10.0	15.4	15.6	10.6	8.50 to 11.5	102	70.0 to 130	1.29	20.0
BC01784	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.105	0.101	0.103	0.0850 to 0.115	96.8	70.0 to 130	3.88	20.0
BC01784	Silicon, Total	mg/L	0.00043	0.0440	1.00	27.4	27.0	1.02	0.850 to 1.15	90.0	70.0 to 130	1.47	20.0
BC01784	Sodium, Total	mg/L	0.00603	0.0660	5.00	30.5	29.7	4.99	4.25 to 5.75	106	70.0 to 130	2.66	20.0
BC01784	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0980	0.0956	0.0991	0.0850 to 0.115	97.8	70.0 to 130	2.48	20.0
BC01784	Total Organic Carbon	mg/L	0.260	1.00	10.0	11.1	10.2	25.3		99.6	80.0 to 120	8.45	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORGFB
Sample Date: 1/27/22 08:30
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum Field Blank-2

Laboratory ID Number: BC01781

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Chloride	mg/L	-0.021	1.00	200	313	109	10.3	9.00 to 11.0	105	80.0 to 120	5.66	20.0
BC01781	Fluoride	mg/L	0.0363	0.100	2.50	2.50	0.0227	2.39	2.25 to 2.75	100	80.0 to 120	0.00	20.0
BC01784	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.24	0.108	2.02	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01784	Sulfate	mg/L	0.231	1.00	1600	2770	1130	20.3	18.0 to 22.0	102	80.0 to 120	0.00	20.0

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-18

Location Code: WMWGORG
Collected: 1/27/22 08:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01782

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 11:03		1.015	0.0539	mg/L	0.030000	0.1015	J
* Calcium, Total	2/3/22 12:00	2/4/22 12:29		10.15	84.8	mg/L	0.70035	4.06	
* Iron, Total	2/3/22 12:00	2/4/22 12:29		10.15	9.92	mg/L	0.08120	0.406	
* Lithium, Total	2/3/22 12:00	2/4/22 12:46		1.015	0.246	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:29		10.15	55.3	mg/L	0.21315	4.06	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 11:03		1	38.1	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 11:03		1.015	17.8	mg/L	0.02030	0.25375	
* Sodium, Total	2/3/22 12:00	2/4/22 12:46		1.015	13.6	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 10:12		1.015	0.0539	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:46		10.15	88.0	mg/L	0.70035	4.06	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:46		10.15	10.3	mg/L	0.08120	0.406	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 10:12		1.015	0.244	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:46		10.15	56.9	mg/L	0.21315	4.06	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 10:12		1	37.2	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 10:12		1.015	17.4	mg/L	0.02030	0.25375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 10:12		1.015	13.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 16:00		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/3/22 19:12		92.365	13.9	mg/L	0.369460	0.92365	
* Arsenic, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.00382	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.0107	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.00491	mg/L	0.000406	0.001015	
* Cadmium, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.000272	mg/L	0.000068	0.000203	
* Chromium, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.00157	mg/L	0.000203	0.001015	
* Cobalt, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.0845	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.000229	mg/L	0.000068	0.000203	
* Manganese, Total	2/1/22 08:51	2/3/22 19:12		92.365	3.14	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 16:00		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/1/22 08:51	2/1/22 16:00		1.015	2.99	mg/L	0.169505	0.5075	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-18

Location Code: WMWGORG
Collected: 1/27/22 08:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01782

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.00298	mg/L	0.000508	0.001015	
* Thallium, Total	2/1/22 08:51	2/1/22 16:00		1.015	0.0000796	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 15:52		92.365	14.6	mg/L	0.369460	0.92365	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.00450	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.0103	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.00531	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.000169	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.00153	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.0920	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.000224	mg/L	0.000068	0.000203	
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:52		92.365	3.03	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	2.75	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.00334	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 13:24		1.015	0.0000883	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 23:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/2/22 15:51	2/2/22 15:51		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	778	mg/L		50	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 20:40	2/1/22 20:40		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 11:23	1/28/22 11:23		1	1.92	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 13:07	1/28/22 13:07		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:57	2/7/22 15:57		25	532	mg/L	12.50	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - PZ-18

Location Code: WMWGORG
Collected: 1/27/22 08:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01782

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	1/27/22 08:48	1/27/22 08:48			958.69	uS/cm			FA
pH	1/27/22 08:48	1/27/22 08:48			3.89	SU			FA
Temperature	1/27/22 08:48	1/27/22 08:48			16.16	C			FA
Turbidity	1/27/22 08:48	1/27/22 08:48			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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 08:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - PZ-18

Laboratory ID Number: BC01782

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	30.3	30.3	0.0972	0.0850 to 0.115	0.00	70.0 to 130	0.00	20.0
BC01784	Aluminum, Total	mg/L	0.000470	0.00880	0.100	30.2	30.5	0.103	0.0850 to 0.115	500	70.0 to 130	0.988	20.0
BC01784	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0957	0.0983	0.0892	0.0850 to 0.115	95.7	70.0 to 130	2.68	20.0
BC01784	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.101	0.102	0.102	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC01784	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.103	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	0.966	20.0
BC01784	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.0984	0.106	0.0850 to 0.115	101	70.0 to 130	5.53	20.0
BC01784	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.111	0.113	0.0978	0.0850 to 0.115	99.6	70.0 to 130	1.79	20.0
BC01784	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.123	0.115	0.113	0.0850 to 0.115	110	70.0 to 130	6.72	20.0
BC01784	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0966	0.0980	0.0989	0.0850 to 0.115	88.4	70.0 to 130	1.44	20.0
BC01784	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0916	0.0883	0.0927	0.0850 to 0.115	83.9	70.0 to 130	3.67	20.0
BC01784	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	7.08	7.10	1.03	0.850 to 1.15	109	70.0 to 130	0.282	20.0
BC01784	Boron, Total	mg/L	0.00026	0.0650	1.00	7.15	7.12	1.00	0.850 to 1.15	105	70.0 to 130	0.420	20.0
BC01784	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.100	0.101	0.0984	0.0850 to 0.115	96.7	70.0 to 130	0.995	20.0
BC01784	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.105	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	3.88	20.0
BC01784	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	184	185	5.03	4.25 to 5.75	140	70.0 to 130	0.542	20.0
BC01784	Calcium, Total	mg/L	-0.00198	0.152	5.00	177	178	4.80	4.25 to 5.75	-80.0	70.0 to 130	0.563	20.0
BC01784	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0963	0.0992	0.101	0.0850 to 0.115	95.2	70.0 to 130	2.97	20.0
BC01784	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.101	0.0962	0.101	0.0850 to 0.115	99.9	70.0 to 130	4.87	20.0
BC01784	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.539	0.557	0.105	0.0850 to 0.115	92.0	70.0 to 130	3.28	20.0
BC01784	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.502	0.489	0.102	0.0850 to 0.115	96.0	70.0 to 130	2.62	20.0
BC01784	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	20.4	20.6	0.202	0.170 to 0.230	0.00	70.0 to 130	0.976	20.0
BC01784	Iron, Total	mg/L	-0.00024	0.0176	0.2	20.4	20.1	0.198	0.170 to 0.230	-100	70.0 to 130	1.48	20.0
BC01784	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.109	0.106	0.111	0.0850 to 0.115	108	70.0 to 130	2.79	20.0
BC01784	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.101	0.0977	0.102	0.0850 to 0.115	100	70.0 to 130	3.32	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 08:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - PZ-18

Laboratory ID Number: BC01782

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.830	0.857	0.201	0.170 to 0.230	91.5	70.0 to 130	3.20	20.0
BC01784	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.879	0.859	0.198	0.170 to 0.230	104	70.0 to 130	2.30	20.0
BC01784	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	167	165	5.19	4.25 to 5.75	140	70.0 to 130	1.20	20.0
BC01784	Magnesium, Total	mg/L	0.000303	0.0462	5.00	159	160	5.01	4.25 to 5.75	-20.0	70.0 to 130	0.627	20.0
BC01784	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	18.4	18.3	0.112	0.0850 to 0.115	-100	70.0 to 130	0.545	20.0
BC01784	Manganese, Total	mg/L	0.000015	0.000147	0.100	19.1	19.0	0.105	0.0850 to 0.115	200	70.0 to 130	0.525	20.0
BC01784	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00403	0.00401	0.00398	0.00340 to 0.00460	101	70.0 to 130	0.498	20.0
BC01784	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0946	0.0941	0.0973	0.0850 to 0.115	94.6	70.0 to 130	0.530	20.0
BC01784	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0996	0.0977	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.93	20.0
BC01784	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	13.6	14.2	9.75	8.50 to 11.5	89.9	70.0 to 130	4.32	20.0
BC01784	Potassium, Total	mg/L	0.0887	0.367	10.0	15.4	15.6	10.6	8.50 to 11.5	102	70.0 to 130	1.29	20.0
BC01784	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.108	0.108	0.103	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BC01784	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.105	0.101	0.103	0.0850 to 0.115	96.8	70.0 to 130	3.88	20.0
BC01784	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	27.5	27.6	1.02	0.850 to 1.15	100	70.0 to 130	0.363	20.0
BC01784	Silicon, Total	mg/L	0.00043	0.0440	1.00	27.4	27.0	1.02	0.850 to 1.15	90.0	70.0 to 130	1.47	20.0
BC01784	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	28.8	29.8	5.07	4.25 to 5.75	88.0	70.0 to 130	3.41	20.0
BC01784	Sodium, Total	mg/L	0.00603	0.0660	5.00	30.5	29.7	4.99	4.25 to 5.75	106	70.0 to 130	2.66	20.0
BC01784	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01784	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0980	0.0956	0.0991	0.0850 to 0.115	97.8	70.0 to 130	2.48	20.0
BC01784	Total Organic Carbon	mg/L	0.260	1.00	10.0	11.1	10.2	25.3		99.6	80.0 to 120	8.45	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/27/22 08:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - PZ-18

Laboratory ID Number: BC01782

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Chloride	mg/L	-0.021	1.00	200	313	109	10.3	9.00 to 11.0	105	80.0 to 120	5.66	20.0
BC01781	Fluoride	mg/L	0.0363	0.100	2.50	2.50	0.0227	2.39	2.25 to 2.75	100	80.0 to 120	0.00	20.0
BC01784	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.24	0.108	2.02	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01784	Sulfate	mg/L	0.231	1.00	1600	2770	1130	20.3	18.0 to 22.0	102	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-14H

Location Code: WMWGORG
Collected: 1/27/22 09:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01783

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 11:04		1.015	0.148	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:31		10.15	124	mg/L	0.70035	4.06	
* Iron, Total	2/3/22 12:00	2/4/22 12:31		10.15	12.1	mg/L	0.08120	0.406	
* Lithium, Total	2/3/22 12:00	2/4/22 11:04		1.015	0.430	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:31		10.15	90.3	mg/L	0.21315	4.06	
Silica, Total (calc.)	2/3/22 12:00	2/4/22 12:31		1	58.6	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 12:31		10.15	27.4	mg/L	0.2030	2.5375	
* Sodium, Total	2/3/22 12:00	2/4/22 11:04		1.015	21.5	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 10:14		1.015	0.147	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:48		10.15	125	mg/L	0.70035	4.06	
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:48		10.15	11.4	mg/L	0.08120	0.406	
* Lithium, Dissolved	2/3/22 12:00	2/4/22 10:14		1.015	0.426	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:48		10.15	90.6	mg/L	0.21315	4.06	
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 11:48		1	59.3	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 11:48		10.15	27.7	mg/L	0.2030	2.5375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 10:14		1.015	20.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 16:04		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/3/22 19:15		92.365	11.8	mg/L	0.369460	0.92365	
* Arsenic, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.00128	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.0122	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.00718	mg/L	0.000406	0.001015	
* Cadmium, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.00137	mg/L	0.000068	0.000203	
* Chromium, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.000502	mg/L	0.000203	0.001015	J
* Cobalt, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.178	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.000865	mg/L	0.000068	0.000203	
* Manganese, Total	2/1/22 08:51	2/3/22 19:15		92.365	8.52	mg/L	0.006188	0.018473	
* Molybdenum, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.000094	mg/L	0.000068	0.000203	J
* Potassium, Total	2/1/22 08:51	2/1/22 16:04		1.015	3.79	mg/L	0.169505	0.5075	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-14H

Location Code: WMWGORG
Collected: 1/27/22 09:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01783

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.00401	mg/L	0.000508	0.001015	
* Thallium, Total	2/1/22 08:51	2/1/22 16:04		1.015	0.0000681	mg/L	0.000068	0.000203	J
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 15:56		92.365	12.0	mg/L	0.369460	0.92365	
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.00130	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.0112	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.00760	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.00134	mg/L	0.000068	0.000203	
* Chromium, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.000368	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.198	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.000805	mg/L	0.000068	0.000203	
* Manganese, Dissolved	2/2/22 09:05	2/3/22 15:56		92.365	8.39	mg/L	0.006188	0.018473	
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	3.54	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.00463	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 13:27		1.015	0.0000709	mg/L	0.000068	0.000203	J
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 23:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/2/22 15:52	2/2/22 15:52		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1130	mg/L		75.8	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 20:58	2/1/22 20:58		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 11:24	1/28/22 11:24		1	3.75	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 13:08	1/28/22 13:08		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 15:59	2/7/22 15:59		32	784	mg/L	16.00	32	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-14H

Location Code: WMWGORG
Collected: 1/27/22 09:50
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01783

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	1/27/22 09:48	1/27/22 09:48			1290.46	uS/cm			FA
pH	1/27/22 09:48	1/27/22 09:48			4.10	SU			FA
Temperature	1/27/22 09:48	1/27/22 09:48			18.90	C			FA
Turbidity	1/27/22 09:48	1/27/22 09:48			4.14	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 09:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-14H

Laboratory ID Number: BC01783

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	30.3	30.3	0.0972	0.0850 to 0.115	0.00	70.0 to 130	0.00	20.0
BC01784	Aluminum, Total	mg/L	0.000470	0.00880	0.100	30.2	30.5	0.103	0.0850 to 0.115	500	70.0 to 130	0.988	20.0
BC01784	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0957	0.0983	0.0892	0.0850 to 0.115	95.7	70.0 to 130	2.68	20.0
BC01784	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.101	0.102	0.102	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC01784	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.103	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	0.966	20.0
BC01784	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.0984	0.106	0.0850 to 0.115	101	70.0 to 130	5.53	20.0
BC01784	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.111	0.113	0.0978	0.0850 to 0.115	99.6	70.0 to 130	1.79	20.0
BC01784	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.123	0.115	0.113	0.0850 to 0.115	110	70.0 to 130	6.72	20.0
BC01784	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0966	0.0980	0.0989	0.0850 to 0.115	88.4	70.0 to 130	1.44	20.0
BC01784	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0916	0.0883	0.0927	0.0850 to 0.115	83.9	70.0 to 130	3.67	20.0
BC01784	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	7.08	7.10	1.03	0.850 to 1.15	109	70.0 to 130	0.282	20.0
BC01784	Boron, Total	mg/L	0.00026	0.0650	1.00	7.15	7.12	1.00	0.850 to 1.15	105	70.0 to 130	0.420	20.0
BC01784	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.100	0.101	0.0984	0.0850 to 0.115	96.7	70.0 to 130	0.995	20.0
BC01784	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.105	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	3.88	20.0
BC01784	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	184	185	5.03	4.25 to 5.75	140	70.0 to 130	0.542	20.0
BC01784	Calcium, Total	mg/L	-0.00198	0.152	5.00	177	178	4.80	4.25 to 5.75	-80.0	70.0 to 130	0.563	20.0
BC01784	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0963	0.0992	0.101	0.0850 to 0.115	95.2	70.0 to 130	2.97	20.0
BC01784	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.101	0.0962	0.101	0.0850 to 0.115	99.9	70.0 to 130	4.87	20.0
BC01784	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.539	0.557	0.105	0.0850 to 0.115	92.0	70.0 to 130	3.28	20.0
BC01784	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.502	0.489	0.102	0.0850 to 0.115	96.0	70.0 to 130	2.62	20.0
BC01784	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	20.4	20.6	0.202	0.170 to 0.230	0.00	70.0 to 130	0.976	20.0
BC01784	Iron, Total	mg/L	-0.00024	0.0176	0.2	20.4	20.1	0.198	0.170 to 0.230	-100	70.0 to 130	1.48	20.0
BC01784	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.109	0.106	0.111	0.0850 to 0.115	108	70.0 to 130	2.79	20.0
BC01784	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.101	0.0977	0.102	0.0850 to 0.115	100	70.0 to 130	3.32	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 09:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-14H

Laboratory ID Number: BC01783

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.830	0.857	0.201	0.170 to 0.230	91.5	70.0 to 130	3.20	20.0
BC01784	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.879	0.859	0.198	0.170 to 0.230	104	70.0 to 130	2.30	20.0
BC01784	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	167	165	5.19	4.25 to 5.75	140	70.0 to 130	1.20	20.0
BC01784	Magnesium, Total	mg/L	0.000303	0.0462	5.00	159	160	5.01	4.25 to 5.75	-20.0	70.0 to 130	0.627	20.0
BC01784	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	18.4	18.3	0.112	0.0850 to 0.115	-100	70.0 to 130	0.545	20.0
BC01784	Manganese, Total	mg/L	0.000015	0.000147	0.100	19.1	19.0	0.105	0.0850 to 0.115	200	70.0 to 130	0.525	20.0
BC01784	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00403	0.00401	0.00398	0.00340 to 0.00460	101	70.0 to 130	0.498	20.0
BC01784	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0946	0.0941	0.0973	0.0850 to 0.115	94.6	70.0 to 130	0.530	20.0
BC01784	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0996	0.0977	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.93	20.0
BC01784	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	13.6	14.2	9.75	8.50 to 11.5	89.9	70.0 to 130	4.32	20.0
BC01784	Potassium, Total	mg/L	0.0887	0.367	10.0	15.4	15.6	10.6	8.50 to 11.5	102	70.0 to 130	1.29	20.0
BC01784	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.108	0.108	0.103	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BC01784	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.105	0.101	0.103	0.0850 to 0.115	96.8	70.0 to 130	3.88	20.0
BC01784	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	27.5	27.6	1.02	0.850 to 1.15	100	70.0 to 130	0.363	20.0
BC01784	Silicon, Total	mg/L	0.00043	0.0440	1.00	27.4	27.0	1.02	0.850 to 1.15	90.0	70.0 to 130	1.47	20.0
BC01784	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	28.8	29.8	5.07	4.25 to 5.75	88.0	70.0 to 130	3.41	20.0
BC01784	Sodium, Total	mg/L	0.00603	0.0660	5.00	30.5	29.7	4.99	4.25 to 5.75	106	70.0 to 130	2.66	20.0
BC01784	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01784	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0980	0.0956	0.0991	0.0850 to 0.115	97.8	70.0 to 130	2.48	20.0
BC01784	Total Organic Carbon	mg/L	0.260	1.00	10.0	11.1	10.2	25.3		99.6	80.0 to 120	8.45	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/27/22 09:50
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-14H

Laboratory ID Number: BC01783

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Chloride	mg/L	-0.021	1.00	200	313	109	10.3	9.00 to 11.0	105	80.0 to 120	5.66	20.0
BC01781	Fluoride	mg/L	0.0363	0.100	2.50	2.50	0.0227	2.39	2.25 to 2.75	100	80.0 to 120	0.00	20.0
BC01784	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.24	0.108	2.02	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01784	Sulfate	mg/L	0.231	1.00	1600	2770	1130	20.3	18.0 to 22.0	102	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. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-4

Location Code: WMWGORG
Collected: 1/27/22 10:53
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01784

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/3/22 12:00	2/4/22 11:06		1.015	6.10	mg/L	0.030000	0.1015	
* Calcium, Total	2/3/22 12:00	2/4/22 12:47		10.15	181	mg/L	0.70035	4.06	RA
* Iron, Total	2/3/22 12:00	2/4/22 12:32		10.15	20.6	mg/L	0.08120	0.406	RA
* Lithium, Total	2/3/22 12:00	2/4/22 11:06		1.015	0.671	mg/L	0.007105	0.01999956	
* Magnesium, Total	2/3/22 12:00	2/4/22 12:47		10.15	160	mg/L	0.21315	4.06	RA
Silica, Total (calc.)	2/3/22 12:00	2/4/22 12:47		1	56.7	mg/L			
Silicon, Total	2/3/22 12:00	2/4/22 12:47		10.15	26.5	mg/L	0.2030	2.5375	RA
* Sodium, Total	2/3/22 12:00	2/4/22 11:06		1.015	25.2	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	2/3/22 12:00	2/4/22 10:16		1.015	5.99	mg/L	0.030000	0.1015	
* Calcium, Dissolved	2/3/22 12:00	2/4/22 11:49		10.15	177	mg/L	0.70035	4.06	RA
* Iron, Dissolved	2/3/22 12:00	2/4/22 11:49		10.15	20.4	mg/L	0.08120	0.406	RA
* Lithium, Dissolved	2/3/22 12:00	2/4/22 10:16		1.015	0.647	mg/L	0.007105	0.01999956	
* Magnesium, Dissolved	2/3/22 12:00	2/4/22 11:49		10.15	160	mg/L	0.21315	4.06	RA
Silica, Dissolved (calc.)	2/3/22 12:00	2/4/22 11:49		1	56.7	mg/L			
Silicon, Dissolved	2/3/22 12:00	2/4/22 11:49		10.15	26.5	mg/L	0.2030	2.5375	
* Sodium, Dissolved	2/3/22 12:00	2/4/22 10:16		1.015	24.4	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/1/22 08:51	2/1/22 16:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	2/1/22 08:51	2/3/22 19:19		92.365	29.7	mg/L	0.369460	0.92365	RA
* Arsenic, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.00274	mg/L	0.000068	0.000203	
* Barium, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.0131	mg/L	0.000102	0.000203	
* Beryllium, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.00768	mg/L	0.000406	0.001015	
* Cadmium, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.00336	mg/L	0.000068	0.000203	
* Chromium, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.00107	mg/L	0.000203	0.001015	
* Cobalt, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.406	mg/L	0.000068	0.000203	
* Lead, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.00103	mg/L	0.000068	0.000203	
* Manganese, Total	2/1/22 08:51	2/3/22 19:19		92.365	18.9	mg/L	0.006188	0.018473	RA
* Molybdenum, Total	2/1/22 08:51	2/1/22 16:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	2/1/22 08:51	2/1/22 16:08		1.015	5.18	mg/L	0.169505	0.5075	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery for Nitrate/Nitrite passes using values below the detection limit. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-4

Location Code: WMWGORG
Collected: 1/27/22 10:53
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01784

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.00817	mg/L	0.000508	0.001015	
* Thallium, Total	2/1/22 08:51	2/1/22 16:08		1.015	0.000223	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: ABB***								
* Antimony, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	2/2/22 09:05	2/3/22 16:00		92.365	30.3	mg/L	0.369460	0.92365	RA
* Arsenic, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.00250	mg/L	0.000068	0.000203	
* Barium, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.0114	mg/L	0.000102	0.000203	
* Beryllium, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.00821	mg/L	0.000406	0.001015	
* Cadmium, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.00333	mg/L	0.000068	0.000203	
* Chromium, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.00105	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.447	mg/L	0.000068	0.000203	
* Lead, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.00108	mg/L	0.000068	0.000203	
* Manganese, Dissolved	2/2/22 09:05	2/3/22 16:00		92.365	18.5	mg/L	0.006188	0.018473	RA
* Molybdenum, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	4.61	mg/L	0.169505	0.5075	
* Selenium, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.00854	mg/L	0.000508	0.001015	
* Thallium, Dissolved	2/2/22 09:05	2/3/22 13:31		1.015	0.000238	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	2/8/22 18:27	2/8/22 23:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: ELH***								
* Nitrogen, Nitrate/Nitrite	2/2/22 15:53	2/2/22 15:53		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	1/28/22 11:30	2/1/22 13:58		1	1840	mg/L		100	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	2/1/22 21:17	2/1/22 21:17		1	1.14	mg/L	1.00	2	J
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	1/28/22 11:25	1/28/22 11:25		20	103	mg/L	10.00	20	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	1/28/22 13:09	1/28/22 13:09		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	2/7/22 16:00	2/7/22 16:00		80	1130	mg/L	40.00	80	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery for Nitrate/Nitrite passes using values below the detection limit. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - MW-4

Location Code: WMWGORG
Collected: 1/27/22 10:53
Customer ID:
Submittal Date: 1/27/22 15:16

Laboratory ID Number: BC01784

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	1/27/22 10:50	1/27/22 10:50			2062.07	uS/cm			FA
pH	1/27/22 10:50	1/27/22 10:50			3.73	SU			FA
Temperature	1/27/22 10:50	1/27/22 10:50			19.63	C			FA
Turbidity	1/27/22 10:50	1/27/22 10:50			1.54	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery for Nitrate/Nitrite passes using values below the detection limit. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 10:53
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-4

Laboratory ID Number: BC01784

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Aluminum, Dissolved	mg/L	-0.000144	0.00880	0.100	30.3	30.3	0.0972	0.0850 to 0.115	0.00	70.0 to 130	0.00	20.0
BC01784	Aluminum, Total	mg/L	0.000470	0.00880	0.100	30.2	30.5	0.103	0.0850 to 0.115	500	70.0 to 130	0.988	20.0
BC01784	Antimony, Dissolved	mg/L	0.000122	0.00100	0.100	0.0957	0.0983	0.0892	0.0850 to 0.115	95.7	70.0 to 130	2.68	20.0
BC01784	Antimony, Total	mg/L	0.000346	0.00100	0.100	0.101	0.102	0.102	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BC01784	Arsenic, Dissolved	mg/L	0.0000273	0.000147	0.100	0.103	0.104	0.104	0.0850 to 0.115	100	70.0 to 130	0.966	20.0
BC01784	Arsenic, Total	mg/L	0.000104	0.000147	0.100	0.104	0.0984	0.106	0.0850 to 0.115	101	70.0 to 130	5.53	20.0
BC01784	Barium, Dissolved	mg/L	-0.0000321	0.000200	0.100	0.111	0.113	0.0978	0.0850 to 0.115	99.6	70.0 to 130	1.79	20.0
BC01784	Barium, Total	mg/L	0.0000503	0.000200	0.100	0.123	0.115	0.113	0.0850 to 0.115	110	70.0 to 130	6.72	20.0
BC01784	Beryllium, Dissolved	mg/L	0.0000506	0.000880	0.100	0.0966	0.0980	0.0989	0.0850 to 0.115	88.4	70.0 to 130	1.44	20.0
BC01784	Beryllium, Total	mg/L	0.000137	0.000880	0.100	0.0916	0.0883	0.0927	0.0850 to 0.115	83.9	70.0 to 130	3.67	20.0
BC01784	Boron, Dissolved	mg/L	-0.000322	0.0650	1.00	7.08	7.10	1.03	0.850 to 1.15	109	70.0 to 130	0.282	20.0
BC01784	Boron, Total	mg/L	0.00026	0.0650	1.00	7.15	7.12	1.00	0.850 to 1.15	105	70.0 to 130	0.420	20.0
BC01784	Cadmium, Dissolved	mg/L	0.000007	0.000147	0.100	0.100	0.101	0.0984	0.0850 to 0.115	96.7	70.0 to 130	0.995	20.0
BC01784	Cadmium, Total	mg/L	0.0000381	0.000147	0.100	0.105	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	3.88	20.0
BC01784	Calcium, Dissolved	mg/L	0.00459	0.152	5.00	184	185	5.03	4.25 to 5.75	140	70.0 to 130	0.542	20.0
BC01784	Calcium, Total	mg/L	-0.00198	0.152	5.00	177	178	4.80	4.25 to 5.75	-80.0	70.0 to 130	0.563	20.0
BC01784	Chromium, Dissolved	mg/L	0.0000231	0.000440	0.100	0.0963	0.0992	0.101	0.0850 to 0.115	95.2	70.0 to 130	2.97	20.0
BC01784	Chromium, Total	mg/L	-0.0000094	0.000440	0.100	0.101	0.0962	0.101	0.0850 to 0.115	99.9	70.0 to 130	4.87	20.0
BC01784	Cobalt, Dissolved	mg/L	-0.0000016	0.000147	0.100	0.539	0.557	0.105	0.0850 to 0.115	92.0	70.0 to 130	3.28	20.0
BC01784	Cobalt, Total	mg/L	0.000044	0.000147	0.100	0.502	0.489	0.102	0.0850 to 0.115	96.0	70.0 to 130	2.62	20.0
BC01784	Iron, Dissolved	mg/L	-0.000483	0.0176	0.2	20.4	20.6	0.202	0.170 to 0.230	0.00	70.0 to 130	0.976	20.0
BC01784	Iron, Total	mg/L	-0.00024	0.0176	0.2	20.4	20.1	0.198	0.170 to 0.230	-100	70.0 to 130	1.48	20.0
BC01784	Lead, Dissolved	mg/L	0.0000109	0.000147	0.100	0.109	0.106	0.111	0.0850 to 0.115	108	70.0 to 130	2.79	20.0
BC01784	Lead, Total	mg/L	0.0000192	0.000147	0.100	0.101	0.0977	0.102	0.0850 to 0.115	100	70.0 to 130	3.32	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery for Nitrate/Nitrite passes using values below the detection limit. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 1/27/22 10:53
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-4

Laboratory ID Number: BC01784

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Lithium, Dissolved	mg/L	0.000063	0.0154	0.200	0.830	0.857	0.201	0.170 to 0.230	91.5	70.0 to 130	3.20	20.0
BC01784	Lithium, Total	mg/L	-0.000109	0.0154	0.200	0.879	0.859	0.198	0.170 to 0.230	104	70.0 to 130	2.30	20.0
BC01784	Magnesium, Dissolved	mg/L	0.00815	0.0462	5.00	167	165	5.19	4.25 to 5.75	140	70.0 to 130	1.20	20.0
BC01784	Magnesium, Total	mg/L	0.000303	0.0462	5.00	159	160	5.01	4.25 to 5.75	-20.0	70.0 to 130	0.627	20.0
BC01784	Manganese, Dissolved	mg/L	0.0000529	0.000147	0.100	18.4	18.3	0.112	0.0850 to 0.115	-100	70.0 to 130	0.545	20.0
BC01784	Manganese, Total	mg/L	0.000015	0.000147	0.100	19.1	19.0	0.105	0.0850 to 0.115	200	70.0 to 130	0.525	20.0
BC01784	Mercury, Total by CVAA	mg/L	0.00000	0.000500	0.004	0.00403	0.00401	0.00398	0.00340 to 0.00460	101	70.0 to 130	0.498	20.0
BC01784	Molybdenum, Dissolved	mg/L	-0.0000001	0.000147	0.100	0.0946	0.0941	0.0973	0.0850 to 0.115	94.6	70.0 to 130	0.530	20.0
BC01784	Molybdenum, Total	mg/L	0.0000548	0.000147	0.100	0.0996	0.0977	0.103	0.0850 to 0.115	99.6	70.0 to 130	1.93	20.0
BC01784	Potassium, Dissolved	mg/L	-0.00696	0.367	10.0	13.6	14.2	9.75	8.50 to 11.5	89.9	70.0 to 130	4.32	20.0
BC01784	Potassium, Total	mg/L	0.0887	0.367	10.0	15.4	15.6	10.6	8.50 to 11.5	102	70.0 to 130	1.29	20.0
BC01784	Selenium, Dissolved	mg/L	0.0000188	0.00100	0.100	0.108	0.108	0.103	0.0850 to 0.115	99.5	70.0 to 130	0.00	20.0
BC01784	Selenium, Total	mg/L	0.0000099	0.00100	0.100	0.105	0.101	0.103	0.0850 to 0.115	96.8	70.0 to 130	3.88	20.0
BC01784	Silicon, Dissolved	mg/L	-0.000527	0.0440	1.00	27.5	27.6	1.02	0.850 to 1.15	100	70.0 to 130	0.363	20.0
BC01784	Silicon, Total	mg/L	0.00043	0.0440	1.00	27.4	27.0	1.02	0.850 to 1.15	90.0	70.0 to 130	1.47	20.0
BC01784	Sodium, Dissolved	mg/L	0.00241	0.0660	5.00	28.8	29.8	5.07	4.25 to 5.75	88.0	70.0 to 130	3.41	20.0
BC01784	Sodium, Total	mg/L	0.00603	0.0660	5.00	30.5	29.7	4.99	4.25 to 5.75	106	70.0 to 130	2.66	20.0
BC01784	Thallium, Dissolved	mg/L	0.0000127	0.000147	0.100	0.105	0.103	0.105	0.0850 to 0.115	105	70.0 to 130	1.92	20.0
BC01784	Thallium, Total	mg/L	0.0000218	0.000147	0.100	0.0980	0.0956	0.0991	0.0850 to 0.115	97.8	70.0 to 130	2.48	20.0
BC01784	Total Organic Carbon	mg/L	0.260	1.00	10.0	11.1	10.2	25.3		99.6	80.0 to 120	8.45	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery for Nitrate/Nitrite passes using values below the detection limit. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 1/27/22 10:53
Customer ID:
Delivery Date: 1/27/22 15:16

Description: Gorgas Gypsum - MW-4

Laboratory ID Number: BC01784

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC01784	Chloride	mg/L	-0.021	1.00	200	313	109	10.3	9.00 to 11.0	105	80.0 to 120	5.66	20.0
BC01781	Fluoride	mg/L	0.0363	0.100	2.50	2.50	0.0227	2.39	2.25 to 2.75	100	80.0 to 120	0.00	20.0
BC01784	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.01	0.200	2.00	2.24	0.108	2.02	1.80 to 2.20	112	90.0 to 110	0.00	15.0
BC01784	Solids, Dissolved	mg/L	0.0000	25.0			1820	50.0	40.0 to 60.0			1.09	10.0
BC01784	Sulfate	mg/L	0.231	1.00	1600	2770	1130	20.3	18.0 to 22.0	102	80.0 to 120	0.00	20.0

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery for Nitrate/Nitrite passes using values below the detection limit. Alkalinity could not be performed due to the initial pH reading was below the titration end point of 4.5 SU. Fluoride result is qualified due to potential matrix interference.

Reported: 3/10/2022
Version: 3.5
COA_CCR

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

Definitions

Alabama Power

Project Number: WMWGORG_1348

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.
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
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Gorgas Gypsum

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

Comments: Nitrate/nitrite, TOC pH<2. LBM 1/26/22 Correcting bottle count to 7 for MW-12H DUP. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
PZ-21	01/25/2022	10:38	7	Groundwater		BC01619
PZ-22	01/25/2022	11:53	7	Groundwater		BC01620
PZ-20	01/25/2022	12:55	7	Groundwater		BC01621
FB-1	01/25/2022	13:25	5	Field Blank		BC01622
PZ-19	01/25/2022	14:45	7	Groundwater		BC01623
MW-12H	01/25/2022	15:48	7	Groundwater		BC01624
MW-12H dup	01/25/2022	15:48	7	Sample Duplicate		BC01625

Relinquished By	Received By	Date/Time
Dallas Gentry	Lauren Mabry	01/26/2022 08:07

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2	☑
Turbidity ID	3901-20010-2-2	Cooler Temp	0.3 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

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
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Gorgas Gypsum

Bottles													
1	Metals	500 mL	3	Hg	250 mL	5	TDS	500 mL	7	Alkalinity/pH	250 mL
2	Dissolved Metals	500 mL	4	Nitrate/Nitrite, TOC	250 mL	6	Anions	250 mL	8	N/A	N/A

Comments: Nitrate/Nitrite, TOC bottles pH<2. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-3V	01/26/2022	11:50	7	Groundwater		BC01768
MW-8V	01/26/2022	13:50	7	Groundwater		BC01769
MW-3	01/26/2022	15:08	7	Groundwater		BC01770
MW-4V	01/27/2022	09:40	7	Groundwater		BC01771
PZ-17	01/27/2022	10:45	7	Groundwater		BC01772

Relinquished By	Received By	Date/Time
Dallas Gentry	Laura Mabry	01/27/2022 14:00

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2	☑
Turbidity ID	3901-20010-2-2	Cooler Temp	0.0 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

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
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Gorgas Gypsum

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

Comments: Nitrate/Nitrite, TOC bottles pH<2. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11H	01/26/2022	10:10	7	Groundwater		BC01773
MW-13H	01/26/2022	11:17	7	Groundwater		BC01774
MW-13H Dup	01/26/2022	11:17	7	Sample Duplicate		BC01775
MW-9V	01/26/2022	13:20	7	Groundwater		BC01776
MW-9H	01/26/2022	15:25	7	Groundwater		BC01777
MW-12V	01/27/2022	09:00	7	Groundwater		BC01778
MW-8	01/27/2022	10:00	7	Groundwater		BC01779
EB-1	01/27/2022	10:40	5	Equipment Blank		BC01780

Relinquished By	Received By	Date/Time
		01/27/2022 14:01

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	0.0 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

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
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Gorgas Gypsum

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

Comments: Nitrate/Nitrite, TOC bottles pH<2. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
FB-2	01/27/2022	08:30	5	Field Blank		BC01781
PZ-18	01/27/2022	08:50	7	Groundwater		BC01782
MW-14H	01/27/2022	09:50	7	Groundwater		BC01783
MW-4	01/27/2022	10:53	7	Groundwater		BC01784

Relinquished By	Received By	Date/Time
		01/27/2022 14:13

SmarTroll ID	7836-43100-1-1	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23343-4-2	Cooler Temp	0.0 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

8.0

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Gorgas Gypsum

Bottles								
1	Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
2	Sulfide	250 mL	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Radium MS/MSD collected at PZ-20
Sulfide bottles pH>9. LBM 1/26/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
PZ-21	01/25/2022	10:38	2	Groundwater		BC01626
PZ-22	01/25/2022	11:53	2	Groundwater		BC01627
PZ-20	01/25/2022	12:55	4	Groundwater		BC01628
FB-1	01/25/2022	13:25	2	Field Blank		BC01629
PZ-19	01/25/2022	14:45	2	Groundwater		BC01630
MW-12H	01/25/2022	15:48	2	Groundwater		BC01631
MW-12H dup	01/25/2022	15:48	2	Sample Duplicate		BC01632

Relinquished By	Received By	Date/Time
Dallas Gentry	Laura Mapp	01/26/2022 08:08

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2	☑
Turbidity ID	3901-20010-2-2	Cooler Temp	0.3 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Gorgas Gypsum

Bottles													
1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	Sulfide	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-3
Sulfide pH>9. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-3V	01/26/2022	11:50	2	Groundwater		BC01785
MW-8V	01/26/2022	13:50	2	Groundwater		BC01786
MW-3	01/26/2022	15:08	4	Groundwater		BC01787
MW-4V	01/27/2022	09:40	2	Groundwater		BC01788
PZ-17	01/27/2022	10:45	2	Groundwater		BC01789

Relinquished By	Received By	Date/Time
Dallas Gentry	Lauren Mayo	01/27/2022 14:00

SmarTroll ID	7586-41444-5-3	All metals and radiological bottles have pH < 2	☑
Turbidity ID	3901-20010-2-2	Cooler Temp	0.0 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Gorgas Gypsum

Bottles												
1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	Sulfide	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Sulfide pH>9. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11H	01/26/2022	10:10	2	Groundwater		BC01790
MW-13H	01/26/2022	11:17	2	Groundwater		BC01791
MW-13H Dup	01/26/2022	11:17	2	Sample Duplicate		BC01792
MW-9V	01/26/2022	13:20	2	Groundwater		BC01793
MW-9H	01/26/2022	15:25	2	Groundwater		BC01794
MW-12V	01/27/2022	09:00	2	Groundwater		BC01795
MW-8	01/27/2022	10:00	2	Groundwater		BC01796
EB-1	01/27/2022	10:40	2	Equipment Blank		BC01797

Relinquished By	Received By	Date/Time
		01/27/2022 14:01

SmarTroll ID	7586-41445-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	0.0 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Gorgas Gypsum

Bottles								
1	Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
2	Sulfide	250 mL	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Sulfide pH>9. LBM 1/27/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
FB-2	01/27/2022	08:30	2	Field Blank		BC01798
PZ-18	01/27/2022	08:50	2	Groundwater		BC01799
MW-14H	01/27/2022	09:50	2	Groundwater		BC01800
MW-4	01/27/2022	10:53	2	Groundwater		BC01801

Relinquished By	Received By	Date/Time
		01/27/2022 14:14

SmarTroll ID	7836-43100-1-1	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23343-4-2	Cooler Temp	0.0 degrees C
Sample Event	1348	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

March 22, 2022

Laura Midkiff
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Dear Laura Midkiff:

Enclosed are the analytical results for sample(s) received by the laboratory between February 01, 2022 and February 08, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

This report has been revised and replaces the report dated March 11, 2022. This project has been revised in order to add U qualifiers to the final report.

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

Sincerely,

Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Brooke Caton, Alabama Power
Renee Jernigan, Alabama Power

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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SAMPLE SUMMARY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30462100001	**BC01626 PZ-21**	Water	01/25/22 10:38	02/01/22 09:45
30462100002	**BC01627 PZ-22**	Water	01/25/22 11:53	02/01/22 09:45
30462100003	**BC01628 PZ-20**	Water	01/25/22 12:55	02/01/22 09:45
30462100004	**BC01629 FB-1**	Water	01/25/22 13:25	02/01/22 09:45
30462100005	**BC01630 PZ-19**	Water	01/25/22 14:45	02/01/22 09:45
30462100006	**BC01631 MW-12H**	Water	01/25/22 15:48	02/01/22 09:45
30462100007	**BC01632 MW-12H DUP**	Water	01/25/22 15:48	02/01/22 09:45
30462100008	**BC01785 MW-3V**	Water	01/26/22 11:50	02/01/22 09:45
30462100009	**BC01786 MW-8V**	Water	01/26/22 13:50	02/01/22 09:45
30462100010	**BC01787 MW-3**	Water	01/26/22 15:08	02/01/22 09:45
30462100011	**BC01788 MW-4V**	Water	01/27/22 09:40	02/01/22 09:45
30462100012	**BC01789 PZ-17**	Water	01/27/22 10:45	02/01/22 09:45
30462100013	**BC01790 MW-11H**	Water	01/26/22 10:10	02/01/22 09:45
30462100014	**BC01791 MW-13H**	Water	01/26/22 11:17	02/01/22 09:45
30462100015	**BC01792 MW-13H DUP**	Water	01/26/22 11:17	02/01/22 09:45
30462100016	**BC01793 MW-9V**	Water	01/26/22 13:20	02/01/22 09:45
30462100017	**BC01794 MW-9H**	Water	01/26/22 15:25	02/01/22 09:45
30462100018	**BC01795 MW-12V**	Water	01/27/22 09:00	02/01/22 09:45
30462100019	**BC01796 MW-8**	Water	01/27/22 10:00	02/01/22 09:45
30462100020	**BC01797 EB-1**	Water	01/27/22 10:40	02/01/22 09:45
30462100021	**BC01798 FB-2**	Water	01/27/22 08:30	02/01/22 09:45
30462100022	**BC01799 PZ-18**	Water	01/27/22 08:50	02/01/22 09:45
30462100023	**BC01800 MW-14H**	Water	01/27/22 09:50	02/01/22 09:45
30462100024	**BC01801 MW-4**	Water	01/27/22 10:53	02/01/22 09:45
30462100025	**BC01628 PZ-20 MS**	Water	01/25/22 12:55	02/08/22 13:27
30462100026	**BC01628 PZ-20 MSD**	Water	01/25/22 12:55	02/08/22 13:27
30462100027	**BC01787 MW-3 MS**	Water	01/26/22 15:08	02/08/22 13:32
30462100028	**BC01787 MW-3 MSD**	Water	01/26/22 15:08	02/08/22 13:32

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30462100001	**BC01626 PZ-21**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100002	**BC01627 PZ-22**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100003	**BC01628 PZ-20**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100004	**BC01629 FB-1**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100005	**BC01630 PZ-19**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100006	**BC01631 MW-12H**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100007	**BC01632 MW-12H DUP**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100008	**BC01785 MW-3V**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100009	**BC01786 MW-8V**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100010	**BC01787 MW-3**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100011	**BC01788 MW-4V**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100012	**BC01789 PZ-17**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100013	**BC01790 MW-11H**	EPA 9315	JJY	1	PASI-PA

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
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SAMPLE ANALYTE COUNT

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100014	**BC01791 MW-13H**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100015	**BC01792 MW-13H DUP**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100016	**BC01793 MW-9V**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100017	**BC01794 MW-9H**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100018	**BC01795 MW-12V**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100019	**BC01796 MW-8**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100020	**BC01797 EB-1**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100021	**BC01798 FB-2**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100022	**BC01799 PZ-18**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100023	**BC01800 MW-14H**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100024	**BC01801 MW-4**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30462100025	**BC01628 PZ-20 MS**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30462100026	**BC01628 PZ-20 MSD**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30462100027	**BC01787 MW-3 MS**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
30462100028	**BC01787 MW-3 MSD**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Method: **EPA 9315**
Description: 9315 Total Radium
Client: Alabama Power
Date: March 22, 2022

General Information:
28 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:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Method: **EPA 9320**
Description: 9320 Radium 228
Client: Alabama Power
Date: March 22, 2022

General Information:
28 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:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Alabama Power
Date: March 22, 2022

General Information:
24 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: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01626 PZ-21 **Lab ID: 30462100001** Collected: 01/25/22 10:38 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.265U ± 0.229 (0.403) C:91% T:NA**	pCi/L	03/07/22 08:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.144U ± 0.413 (0.930) C:75% T:63%**	pCi/L	02/16/22 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.409U ± 0.642 (1.33)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01627 PZ-22 **Lab ID: 30462100002** Collected: 01/25/22 11:53 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.286U ± 0.229 (0.402) C:101% T:NA**	pCi/L	03/07/22 08:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.492U ± 0.381 (0.745) C:74% T:82%**	pCi/L	02/16/22 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.778U ± 0.610 (1.15)**	pCi/L	03/07/22 14:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01628 PZ-20 **Lab ID: 30462100003** Collected: 01/25/22 12:55 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.135U ± 0.184 (0.387) C:97% T:NA**	pCi/L	03/07/22 08:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.358U ± 0.371 (0.938) C:75% T:75%**	pCi/L	02/16/22 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.135U ± 0.555 (1.33)**	pCi/L	03/07/22 14:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01629 FB-1 **Lab ID: 30462100004** Collected: 01/25/22 13:25 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.00287U ± 0.186 (0.498) C:98% T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.00474U ± 0.284 (0.667) C:78% T:88%**	pCi/L	02/16/22 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.00287U ± 0.470 (1.17)**	pCi/L	03/07/22 14:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01630 PZ-19 **Lab ID: 30462100005** Collected: 01/25/22 14:45 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0175U ± 0.163 (0.434) C:98% T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.358U ± 0.352 (0.719) C:70% T:86%**	pCi/L	02/16/22 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.376U ± 0.515 (1.15)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01631 MW-12H **Lab ID: 30462100006** Collected: 01/25/22 15:48 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.413U ± 0.300 (0.537) C:93% T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.804 ± 0.439 (0.787) C:72% T:86%**	pCi/L	02/16/22 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.22U ± 0.739 (1.32)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01632 MW-12H DUP **Lab ID: 30462100007** Collected: 01/25/22 15:48 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.229U ± 0.206 (0.378) C:97% T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.545U ± 0.402 (0.786) C:74% T:85%**	pCi/L	02/16/22 15:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.774U ± 0.608 (1.16)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01785 MW-3V **Lab ID: 30462100008** Collected: 01/26/22 11:50 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0988U ± 0.179 (0.408) C:100% T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.447U ± 0.356 (0.700) C:76% T:83%**	pCi/L	02/16/22 15:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.546U ± 0.535 (1.11)**	pCi/L	03/07/22 14:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01786 MW-8V **Lab ID: 30462100009** Collected: 01/26/22 13:50 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.155U ± 0.223 (0.482) C:92% T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.00243U ± 0.377 (0.891) C:72% T:74%**	pCi/L	02/16/22 15:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.155U ± 0.600 (1.37)**	pCi/L	03/07/22 14:26	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01787 MW-3 **Lab ID: 30462100010** Collected: 01/26/22 15:08 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0497U ± 0.136 (0.334) C:102% T:NA**	pCi/L	03/07/22 08:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.285U ± 0.299 (0.616) C:78% T:89%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.335U ± 0.435 (0.950)**	pCi/L	03/07/22 14:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01788 MW-4V **Lab ID: 30462100011** Collected: 01/27/22 09:40 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.160U ± 0.177 (0.345) C:100% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.464U ± 0.344 (0.669) C:81% T:83%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.624U ± 0.521 (1.01)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01789 PZ-17 **Lab ID: 30462100012** Collected: 01/27/22 10:45 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.243U ± 0.201 (0.344) C:99% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.116U ± 0.306 (0.685) C:83% T:88%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.359U ± 0.507 (1.03)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01790 MW-11H **Lab ID: 30462100013** Collected: 01/26/22 10:10 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.217U ± 0.195 (0.359) C:107% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.289U ± 0.303 (0.628) C:85% T:87%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.506U ± 0.498 (0.987)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01791 MW-13H **Lab ID: 30462100014** Collected: 01/26/22 11:17 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.354U ± 0.237 (0.376) C:101% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.0486U ± 0.389 (0.921) C:74% T:66%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.354U ± 0.626 (1.30)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01792 MW-13H DUP **Lab ID: 30462100015** Collected: 01/26/22 11:17 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.187U ± 0.176 (0.319) C:99% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.174U ± 0.287 (0.625) C:79% T:84%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.361U ± 0.463 (0.944)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01793 MW-9V **Lab ID: 30462100016** Collected: 01/26/22 13:20 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.159U ± 0.184 (0.369) C:102% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.371U ± 0.291 (0.572) C:81% T:92%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.530U ± 0.475 (0.941)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01794 MW-9H **Lab ID: 30462100017** Collected: 01/26/22 15:25 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.335 ± 0.215 (0.296) C:101% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.721 ± 0.379 (0.663) C:77% T:83%**	pCi/L	02/18/22 11:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.06 ± 0.594 (0.959)**	pCi/L	03/07/22 14:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01795 MW-12V **Lab ID: 30462100018** Collected: 01/27/22 09:00 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0638U ± 0.142 (0.336) C:99% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.297U ± 0.398 (0.849) C:78% T:67%**	pCi/L	02/18/22 11:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.361U ± 0.540 (1.19)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01796 MW-8 **Lab ID: 30462100019** Collected: 01/27/22 10:00 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0542U ± 0.138 (0.335) C:93% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.226U ± 0.293 (0.621) C:76% T:89%**	pCi/L	02/18/22 11:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.280U ± 0.431 (0.956)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01797 EB-1 **Lab ID: 30462100020** Collected: 01/27/22 10:40 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0867U ± 0.199 (0.470) C:99% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.412U ± 0.372 (0.748) C:77% T:70%**	pCi/L	02/18/22 11:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.499U ± 0.571 (1.22)**	pCi/L	03/07/22 14:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01798 FB-2 **Lab ID: 30462100021** Collected: 01/27/22 08:30 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.129U ± 0.169 (0.350) C:100% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.223U ± 0.275 (0.579) C:77% T:87%**	pCi/L	02/18/22 11:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.352U ± 0.444 (0.929)**	pCi/L	03/07/22 14:24	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01799 PZ-18 **Lab ID: 30462100022** Collected: 01/27/22 08:50 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0130U ± 0.170 (0.456) C:94% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.519U ± 0.355 (0.675) C:76% T:84%**	pCi/L	02/18/22 11:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.532U ± 0.525 (1.13)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01800 MW-14H **Lab ID: 30462100023** Collected: 01/27/22 09:50 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.136U ± 0.214 (0.474) C:97% T:NA**	pCi/L	03/07/22 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.111U ± 0.337 (0.759) C:76% T:75%**	pCi/L	02/18/22 11:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.247U ± 0.551 (1.23)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01801 MW-4 **Lab ID: 30462100024** Collected: 01/27/22 10:53 Received: 02/01/22 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.212U ± 0.217 (0.427) C:101% T:NA**	pCi/L	03/07/22 08:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.579U ± 0.363 (0.677) C:74% T:85%**	pCi/L	02/18/22 11:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.791U ± 0.580 (1.10)**	pCi/L	03/07/22 14:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01628 PZ-20 MS **Lab ID: 30462100025** Collected: 01/25/22 12:55 Received: 02/08/22 13:27 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • Sample is a matrix spike of 30462100 003.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**91.55 %REC ± NA (NA) C:NA T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**90.78 %REC ± NA (NA) C:NA T:NA**	pCi/L	02/16/22 15:19	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01628 PZ-20 MSD **Lab ID: 30462100026** Collected: 01/25/22 12:55 Received: 02/08/22 13:27 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • Sample is an MSD of 30462100 003.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**103.86 %REC 12.60RPD ± NA (NA) C:NA T:NA**	pCi/L	03/07/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**86.62 %REC 4.68 RPD ± NA (NA) C:NA T:NA**	pCi/L	02/16/22 15:19	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01787 MW-3 MS **Lab ID: 30462100027** Collected: 01/26/22 15:08 Received: 02/08/22 13:32 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • Sample is an MS of sample 30462100 010.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**83.97 %REC ± NA (NA) C:NA T:NA**	pCi/L	03/07/22 08:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**76.22 %REC ± NA (NA) C:NA T:NA**	pCi/L	02/18/22 11:05	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Sample: BC01787 MW-3 MSD **Lab ID: 30462100028** Collected: 01/26/22 15:08 Received: 02/08/22 13:32 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Sample is an MSD of sample 30462100 010.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**79.55 %REC 5.41RPD ± NA (NA) C:NA T:NA**	pCi/L	03/07/22 08:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**91.03 %REC 17.71 RPD ± NA (NA) C:NA T:NA**	pCi/L	02/18/22 11:05	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

QC Batch: 482100
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30462100010, 30462100011, 30462100012, 30462100013, 30462100014, 30462100015, 30462100016, 30462100017, 30462100018, 30462100019, 30462100020, 30462100021, 30462100022, 30462100023, 30462100024, 30462100027, 30462100028

METHOD BLANK: 2330655
Matrix: Water
Associated Lab Samples: 30462100010, 30462100011, 30462100012, 30462100013, 30462100014, 30462100015, 30462100016, 30462100017, 30462100018, 30462100019, 30462100020, 30462100021, 30462100022, 30462100023, 30462100024, 30462100027, 30462100028

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0435 ± 0.128 (0.320) C:99% T:NA	pCi/L	03/07/22 08:23	

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: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

QC Batch: 482648
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30462100010, 30462100011, 30462100012, 30462100013, 30462100014, 30462100015, 30462100016, 30462100017, 30462100018, 30462100019, 30462100020, 30462100021, 30462100022, 30462100023, 30462100024, 30462100027, 30462100028

METHOD BLANK: 2332795
Matrix: Water
Associated Lab Samples: 30462100010, 30462100011, 30462100012, 30462100013, 30462100014, 30462100015, 30462100016, 30462100017, 30462100018, 30462100019, 30462100020, 30462100021, 30462100022, 30462100023, 30462100024, 30462100027, 30462100028

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0445 ± 0.262 (0.603) C:79% T:89%	pCi/L	02/18/22 11:03	

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: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

QC Batch: 482647 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30462100001, 30462100002, 30462100003, 30462100004, 30462100005, 30462100006, 30462100007, 30462100008, 30462100009, 30462100025, 30462100026

METHOD BLANK: 2332794 Matrix: Water
Associated Lab Samples: 30462100001, 30462100002, 30462100003, 30462100004, 30462100005, 30462100006, 30462100007, 30462100008, 30462100009, 30462100025, 30462100026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.113 ± 0.297 (0.666) C:81% T:74%	pCi/L	02/16/22 15:14	

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: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

QC Batch: 482099
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30462100001, 30462100002, 30462100003, 30462100004, 30462100005, 30462100006, 30462100007, 30462100008, 30462100009, 30462100025, 30462100026

METHOD BLANK: 2330654 Matrix: Water
Associated Lab Samples: 30462100001, 30462100002, 30462100003, 30462100004, 30462100005, 30462100006, 30462100007, 30462100008, 30462100009, 30462100025, 30462100026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.218 ± 0.189 (0.326) C:97% T:NA	pCi/L	03/07/22 08:05	

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: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30462100001	**BC01626 PZ-21**	EPA 9315	482099		
30462100002	**BC01627 PZ-22**	EPA 9315	482099		
30462100003	**BC01628 PZ-20**	EPA 9315	482099		
30462100004	**BC01629 FB-1**	EPA 9315	482099		
30462100005	**BC01630 PZ-19**	EPA 9315	482099		
30462100006	**BC01631 MW-12H**	EPA 9315	482099		
30462100007	**BC01632 MW-12H DUP**	EPA 9315	482099		
30462100008	**BC01785 MW-3V**	EPA 9315	482099		
30462100009	**BC01786 MW-8V**	EPA 9315	482099		
30462100010	**BC01787 MW-3**	EPA 9315	482100		
30462100011	**BC01788 MW-4V**	EPA 9315	482100		
30462100012	**BC01789 PZ-17**	EPA 9315	482100		
30462100013	**BC01790 MW-11H**	EPA 9315	482100		
30462100014	**BC01791 MW-13H**	EPA 9315	482100		
30462100015	**BC01792 MW-13H DUP**	EPA 9315	482100		
30462100016	**BC01793 MW-9V**	EPA 9315	482100		
30462100017	**BC01794 MW-9H**	EPA 9315	482100		
30462100018	**BC01795 MW-12V**	EPA 9315	482100		
30462100019	**BC01796 MW-8**	EPA 9315	482100		
30462100020	**BC01797 EB-1**	EPA 9315	482100		
30462100021	**BC01798 FB-2**	EPA 9315	482100		
30462100022	**BC01799 PZ-18**	EPA 9315	482100		
30462100023	**BC01800 MW-14H**	EPA 9315	482100		
30462100024	**BC01801 MW-4**	EPA 9315	482100		
30462100025	**BC01628 PZ-20 MS**	EPA 9315	482099		
30462100026	**BC01628 PZ-20 MSD**	EPA 9315	482099		
30462100027	**BC01787 MW-3 MS**	EPA 9315	482100		
30462100028	**BC01787 MW-3 MSD**	EPA 9315	482100		
30462100001	**BC01626 PZ-21**	EPA 9320	482647		
30462100002	**BC01627 PZ-22**	EPA 9320	482647		
30462100003	**BC01628 PZ-20**	EPA 9320	482647		
30462100004	**BC01629 FB-1**	EPA 9320	482647		
30462100005	**BC01630 PZ-19**	EPA 9320	482647		
30462100006	**BC01631 MW-12H**	EPA 9320	482647		
30462100007	**BC01632 MW-12H DUP**	EPA 9320	482647		
30462100008	**BC01785 MW-3V**	EPA 9320	482647		
30462100009	**BC01786 MW-8V**	EPA 9320	482647		
30462100010	**BC01787 MW-3**	EPA 9320	482648		
30462100011	**BC01788 MW-4V**	EPA 9320	482648		
30462100012	**BC01789 PZ-17**	EPA 9320	482648		
30462100013	**BC01790 MW-11H**	EPA 9320	482648		
30462100014	**BC01791 MW-13H**	EPA 9320	482648		
30462100015	**BC01792 MW-13H DUP**	EPA 9320	482648		
30462100016	**BC01793 MW-9V**	EPA 9320	482648		
30462100017	**BC01794 MW-9H**	EPA 9320	482648		
30462100018	**BC01795 MW-12V**	EPA 9320	482648		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWGORG_1348-Revised Report
Pace Project No.: 30462100

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30462100019	**BC01796 MW-8**	EPA 9320	482648		
30462100020	**BC01797 EB-1**	EPA 9320	482648		
30462100021	**BC01798 FB-2**	EPA 9320	482648		
30462100022	**BC01799 PZ-18**	EPA 9320	482648		
30462100023	**BC01800 MW-14H**	EPA 9320	482648		
30462100024	**BC01801 MW-4**	EPA 9320	482648		
30462100025	**BC01628 PZ-20 MS**	EPA 9320	482647		
30462100026	**BC01628 PZ-20 MSD**	EPA 9320	482647		
30462100027	**BC01787 MW-3 MS**	EPA 9320	482648		
30462100028	**BC01787 MW-3 MSD**	EPA 9320	482648		
30462100001	**BC01626 PZ-21**	Total Radium Calculation	488597		
30462100002	**BC01627 PZ-22**	Total Radium Calculation	488597		
30462100003	**BC01628 PZ-20**	Total Radium Calculation	488597		
30462100004	**BC01629 FB-1**	Total Radium Calculation	488597		
30462100005	**BC01630 PZ-19**	Total Radium Calculation	488597		
30462100006	**BC01631 MW-12H**	Total Radium Calculation	488597		
30462100007	**BC01632 MW-12H DUP**	Total Radium Calculation	488597		
30462100008	**BC01785 MW-3V**	Total Radium Calculation	488597		
30462100009	**BC01786 MW-8V**	Total Radium Calculation	488597		
30462100010	**BC01787 MW-3**	Total Radium Calculation	488595		
30462100011	**BC01788 MW-4V**	Total Radium Calculation	488595		
30462100012	**BC01789 PZ-17**	Total Radium Calculation	488595		
30462100013	**BC01790 MW-11H**	Total Radium Calculation	488595		
30462100014	**BC01791 MW-13H**	Total Radium Calculation	488595		
30462100015	**BC01792 MW-13H DUP**	Total Radium Calculation	488595		
30462100016	**BC01793 MW-9V**	Total Radium Calculation	488595		
30462100017	**BC01794 MW-9H**	Total Radium Calculation	488595		
30462100018	**BC01795 MW-12V**	Total Radium Calculation	488595		
30462100019	**BC01796 MW-8**	Total Radium Calculation	488595		
30462100020	**BC01797 EB-1**	Total Radium Calculation	488595		
30462100021	**BC01798 FB-2**	Total Radium Calculation	488595		
30462100022	**BC01799 PZ-18**	Total Radium Calculation	488595		
30462100023	**BC01800 MW-14H**	Total Radium Calculation	488595		
30462100024	**BC01801 MW-4**	Total Radium Calculation	488595		

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 Caton & Renee Jernigan	Company Name:	Alabama Power Co.
				Address:	744 Highway 87 GSC Bldg #8
Email To:	lbmidkif@southernco.com	Purchase Order #:	APC10700668	Pace Quote:	CCR
Phone:	205-664-6197 Fax	Project Name:	Plant Gorgas Gypsum	Pace Project Manager:	Heather Dennison
Requested Due Date:	Normal	Project Number:	WMWGORG_1348	Pace Profile #:	13805

Regulatory Agency

State / Location: AL

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	2.21	# OF CONTAINERS	Preservatives: Unpreserved	Preservatives: NaOH+ZnAcetate	Preservatives: HNO3		Y/N	Analyses Test: EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide		Residual Chlorine (Y/N)	
1	BC01626	PZ-21	APCO-GS-GSA-PZ-21	APCO_Gorgas_GypsumStore				GW	G	1/25/2022	10:38		1			X			X	X	X				001
2	BC01627	PZ-22	APCO-GS-GSA-PZ-22	APCO_Gorgas_GypsumStore				GW	G	1/25/2022	11:53		1			X			X	X	X				002
3	BC01628	PZ-20	APCO-GS-GSA-PZ-20	APCO_Gorgas_GypsumStore		X		GW	G	1/25/2022	12:55		3			X			X	X	X				003
4	BC01629	FB-1	APCO-GS-GSA-FB-1	APCO_Gorgas_GypsumStore				GW	G	1/25/2022	13:25		1			X			X	X	X				004
5	BC01630	PZ-19	APCO-GS-GSA-PZ-19	APCO_Gorgas_GypsumStore				GW	G	1/25/2022	14:45		1			X			X	X	X				005
6	BC01631	MW-12H	APCO-GS-GSA-MW-12H	APCO_Gorgas_GypsumStore				GW	G	1/25/2022	15:48		1			X			X	X	X				006
7	BC01632	MW-12H DUP	APCO-GS-GSA-MW-12H	APCO_Gorgas_GypsumStore	X			GW	G	1/25/2022	15:48		1			X			X	X	X				007
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Laura Midkiff/ APC GTL	1/28/2022	8:25	Rebecca Case/PACE	2/1/22	0945	—	N	N	Y

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)

WO# : 30462100

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 Caton & Renee Jernigan	Company Name:	Alabama Power Co.
				Address:	744 Highway 87 GSC Bldg #8
Email To:	lbmidkif@southernco.com	Purchase Order #:	APC10700668	Pace Quote:	CCR
Phone:	205-664-6197 Fax:	Project Name:	Plant Gorgas Gypsum	Pace Project Manager:	Heather Dennison
Requested Due Date:	Normal	Project Number:	WMWGORG_1348	Pace Profile #:	13805

Regulatory Agency	
State / Location	AL

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	# OF CONTAINERS	Preservatives: Unpreserved	Preservatives: NaOH+ZnAcetate	Preservatives: HNO3	Preservatives	Preservatives	Analyses Test Y/N	Analyses Test: EPA 9315	Analyses Test: EPA 9320	Analyses Test: Total Radium Sum	Analyses Test: Total Sulfide	Analyses Test	Residual Chlorine (Y/N)	
1	BC01785	MW-3V	APCO-GS-GSA-MW-3V	APCO_Gorgas_GypsumStore				GW	G	1/26/2022	11:50	1			X				X	X	X				008
2	BC01786	MW-8V	APCO-GS-GSA-MW-8V	APCO_Gorgas_GypsumStore				GW	G	1/26/2022	13:50	1			X				X	X	X				009
3	BC01787	MW-3	APCO-GS-GSA-MW-3	APCO_Gorgas_GypsumStore		X		GW	G	1/26/2022	15:08	1			X				X	X	X				010
4	BC01788	MW-4V	APCO-GS-GSA-MW-4V	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	9:40	1			X				X	X	X				011
5	BC01789	PZ-17	APCO-GS-GSA-PZ-17	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	10:45	1			X				X	X	X				012
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Laura Midkiff/ APC GTL	1/28/2022	8:25	Rebecca Lin / PACE	2/1/22	0945	—	N	N	Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed:				

WO# : 30462100

PM: AES Due Date: 02/22/22

CLIENT: ALABAMA PWR

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		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	Copy To:	Brooke Caton & Renee Jernigan	Company Name:	Alabama Power Co.
	Calera, AL 35040			Address:	744 Highway 87 GSC Bldg #8
Email To:	lbmidkif@southernco.com	Purchase Order #:	APC10700668	Pace Quote:	CCR
Phone:	205-664-6197 Fax:	Project Name:	Plant Gorgas Gypsum	Pace Project Manager:	Heather Dennison
Requested Due Date:	Normal	Project Number:	WMWGORG_1348	Pace Profile #:	13805

Regulatory Agency

State / Location: AL

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	# OF CONTAINERS	Preservatives: Unpreserved	Preservatives: NaOH+ZnAcetate	Preservatives: HNO3	Preservatives	Preservatives	Y/N	Analyses Test: EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide	Residual Chlorine (Y/N)	
1	BC01790	MW-11H	APCO-GS-GSA-MW-11H	APCO_Gorgas_GypsumStore				GW	G	1/26/2022	10:10	1			X				X	X	X			013
2	BC01791	MW-13H	APCO-GS-GSA-MW-13H	APCO_Gorgas_GypsumStore				GW	G	1/26/2022	11:17	1			X				X	X	X			014
3	BC01792	MW-13H DUP	APCO-GS-GSA-MW-13H	APCO_Gorgas_GypsumStore	X			GW	G	1/26/2022	11:17	1			X				X	X	X			015
4	BC01793	MW-9V	APCO-GS-GSA-MW-9V	APCO_Gorgas_GypsumStore				GW	G	1/26/2022	13:20	1			X				X	X	X			016
5	BC01794	MW-9H	APCO-GS-GSA-MW-9H	APCO_Gorgas_GypsumStore				GW	G	1/26/2022	15:25	1			X				X	X	X			017
6	BC01795	MW-12V	APCO-GS-GSA-MW-12V	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	9:00	1			X				X	X	X			018
7	BC01796	MW-8	APCO-GS-GSA-MW-8	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	10:00	1			X				X	X	X			019
8	BC01797	EB-1	APCO-GS-GSA-EB-01	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	10:40	1			X				X	X	X			020
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Laura Midkiff/ APC GTL	1/28/2022	8:25	Rebecca Cain / PACE	2/1/22	0945	-	N	N	Y

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)

WO# : 30462100

PM: AES Due Date: 02/22/22

CLIENT: ALABAMA PWR

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		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 Caton & Renee Jernigan	Company Name:	Alabama Power Co.
				Address:	744 Highway 87 GSC Bldg #8
Email To:	lbmidkif@southernco.com	Purchase Order #:	APC10700668	Pace Quote:	CCR
Phone:	205-664-6197 Fax:	Project Name:	Plant Gorgas Gypsum	Pace Project Manager:	Heather Dennison
Requested Due Date:	Normal	Project Number:	WMWGORG_1348	Pace Profile #:	13805

Regulatory Agency	
State / Location	
AL	

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	Description	Station Name Location_Code	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	# OF CONTAINERS	Preservatives: Unpreserved	Preservatives: NaOH+ZnAcetate	Preservatives: HNO3	Preservatives	Preservatives	Y/N	Analyses Test: EPA 9315	EPA 9320	Total Radium Sum	Total Sulfide		Residual Chlorine (Y/N)	
1	BC01798	FB-2	APCO-GS-GSA-FB-2	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	8:30	1			X				X	X	X				021
2	BC01799	PZ-18	APCO-GS-GSA-PZ-18	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	8:50	1			X				X	X	X				022
3	BC01800	MW-14H	APCO-GS-GSA-MW-14H	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	9:50	1			X				X	X	X				023
4	BC01801	MW-4	APCO-GS-GSA-MW-4	APCO_Gorgas_GypsumStore				GW	G	1/27/2022	10:53	1			X				X	X	X				024
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Laura Midkiff/ APC GTL	1/28/2022	8:25	Rebecca Gu/PACE	2/1/22	0815	—	N	N	Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed:				

WO# : 30462100

PM: AES Due Date: 02/22/22

CLIENT: ALABAMA PWR

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: Alabama Power Project # _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label _____

LIMS Login

Tracking #: 555720085868

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:
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4. NO name or signature
Sample Labels match COC: -Includes date/time/ID Matrix: COT				5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Hex Cr Aqueous sample field filtered			X	13.
Organic Samples checked for dechlorination:			X	14.
Filtered volume received for Dissolved tests			X	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	X			16. pH<2
All containers meet method preservation requirements.	X			Initial when completed / Date/time of preservation / Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	17.
Trip Blank Present:			X	18.
Trip Blank Custody Seals Present			X	
Rad Samples Screened < 0.5 mrem/hr	X			Initial when completed: AAE Date: 2/2/22 Survey Meter SN: 1563

WO#: 30462100 PM: AES Due Date: 02/22/22 CLIENT: ALABAMA PWR

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.

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	JJY
Date:	2/14/2022
Worklist:	64955
Matrix:	DW

Method Blank Assessment	
MB Sample ID	2330655
MB concentration:	0.043
M/B Counting Uncertainty:	0.128
MB MDC:	0.320
MB Numerical Performance Indicator:	0.66
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS64955	**LCSD64955**
Count Date:	3/7/2022	3/7/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.029	24.029
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.210	0.215
Target Conc. (pCi/L, g, F):	11.451	11.169
Uncertainty (Calculated):	0.137	0.134
Result (pCi/L, g, F):	10.802	10.323
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.074	1.036
Numerical Performance Indicator:	-1.18	-1.59
Percent Recovery:	94.33%	92.43%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment		
Sample I.D.:	LCS64955	
Duplicate Sample I.D.	LCSD64955	
Sample Result (pCi/L, g, F):	10.802	
Sample Result Counting Uncertainty (pCi/L, g, F):	1.074	
Sample Duplicate Result (pCi/L, g, F):	10.323	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.036	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.630	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	2.04%	
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:	1/26/2022	
Sample I.D.	30462100011	
Sample MS I.D.	30462100027	
Sample MSD I.D.	30462100028	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.216	
MS Target Conc.(pCi/L, g, F):	22.245	
MSD Aliquot (L, g, F):	0.205	
MSD Target Conc. (pCi/L, g, F):	23.483	
MS Spike Uncertainty (calculated):	0.267	
MSD Spike Uncertainty (calculated):	0.282	
Sample Result:	0.160	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.175	
Sample Matrix Spike Result:	18.840	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.343	
Sample Matrix Spike Duplicate Result:	18.840	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.431	
MS Numerical Performance Indicator:	-5.062	
MSD Numerical Performance Indicator:	-6.408	
MS Percent Recovery:	83.97%	
MSD Percent Recovery:	79.55%	
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.	30462100011	
Sample MS I.D.	30462100027	
Sample MSD I.D.	30462100028	
Sample Matrix Spike Result:	18.840	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.343	
Sample Matrix Spike Duplicate Result:	18.840	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.431	
Duplicate Numerical Performance Indicator:	0.000	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	5.41%	
MS/ MSD Duplicate Status vs Numerical Indicator:	N/A	
MS/ MSD Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JC2
Date:	2/14/2022
Worklist:	64978
Matrix:	W I

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2332795
MB concentration:	0.044
M/B 2 Sigma CSU:	0.262
MB MDC:	0.603
MB Numerical Performance Indicator:	0.33
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS64978	LCSD64978
Count Date:	2/18/2022	
Spike I.D.:	21-029	
Decay Corrected Spike Concentration (pCi/mL):	36.295	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.808	
Target Conc. (pCi/L, g, F):	4.490	
Uncertainty (Calculated):	0.220	
Result (pCi/L, g, F):	3.023	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.792	
Numerical Performance Indicator:	-3.50	
Percent Recovery:	67.33%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	135%	
Lower % Recovery Limits:	60%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	1/26/2022	
Sample I.D.	30462100010	
Sample MS I.D.	30462100027	
Sample MSD I.D.	30462100028	
Spike I.D.:	21-029	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.570	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.810	
MS Target Conc.(pCi/L, g, F):	9.029	
MSD Aliquot (L, g, F):	0.806	
MSD Target Conc. (pCi/L, g, F):	9.077	
MS Spike Uncertainty (calculated):	0.442	
MSD Spike Uncertainty (calculated):	0.445	
Sample Result:	0.285	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.299	
Sample Matrix Spike Result:	7.166	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.519	
Sample Matrix Spike Duplicate Result:	8.547	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.718	
MS Numerical Performance Indicator:	-2.615	
MSD Numerical Performance Indicator:	-0.887	
MS Percent Recovery:	76.22%	
MSD Percent Recovery:	91.03%	
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%	

Duplicate Sample Assessment		
Sample I.D.:		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.		
Sample Result (pCi/L, g, F):		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	30462100010
Sample MS I.D.	30462100027
Sample MSD I.D.	30462100028
Sample Matrix Spike Result:	7.166
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.519
Sample Matrix Spike Duplicate Result:	8.547
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.718
Duplicate Numerical Performance Indicator:	-1.180
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	17.71%
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:

JC 2/19/22

JC 2/21/22

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	VAL
Date:	2/14/2022
Worklist:	64977
Matrix:	W I

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2332794
MB concentration:	0.113
M/B 2 Sigma CSU:	0.297
MB MDC:	0.666
MB Numerical Performance Indicator:	0.75
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS64977	LCSD64977
Count Date:	2/16/2022	
Spike I.D.:	21-029	
Decay Corrected Spike Concentration (pCi/mL):	36.317	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.805	
Target Conc. (pCi/L, g, F):	4.511	
Uncertainty (Calculated):	0.221	
Result (pCi/L, g, F):	3.017	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.809	
Numerical Performance Indicator:	-3.49	
Percent Recovery:	66.89%	
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.		
Sample Result (pCi/L, g, F):		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Duplicate Result (pCi/L, g, F):		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	1/25/2022	1/25/2022
Sample I.D.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Spike I.D.:	21-029	21-029
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	36.584	36.584
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):	0.803	0.808
MS Target Conc.(pCi/L, g, F):	9.111	9.059
MSD Aliquot (L, g, F):	0.812	0.807
MSD Target Conc. (pCi/L, g, F):	9.008	9.068
MS Spike Uncertainty (calculated):	0.446	0.444
MSD Spike Uncertainty (calculated):	0.441	0.444
Sample Result:	0.667	-0.358
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.559	0.371
Sample Matrix Spike Result:	7.628	7.865
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.654	1.643
Sample Matrix Spike Duplicate Result:	8.461	7.496
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.807	1.575
MS Numerical Performance Indicator:	-2.339	-0.940
MSD Numerical Performance Indicator:	-1.224	-1.417
MS Percent Recovery:	76.40%	90.78%
MSD Percent Recovery:	86.53%	86.62%
MS Status vs Numerical Indicator:	Warning	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.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Sample Matrix Spike Result:	7.628	7.865
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.654	1.643
Sample Matrix Spike Duplicate Result:	8.461	7.496
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.807	1.575
Duplicate Numerical Performance Indicator:	-0.667	0.317
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	12.43%	4.68%
MS/ MSD Duplicate Status vs Numerical Indicator:	Pass	Pass
MS/ MSD Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	36%	36%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/21/22

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	JJY
Date:	2/14/2022
Worklist:	64954
Matrix:	DW

Method Blank Assessment	
MB Sample ID	2330654
MB concentration:	0.218
M/B Counting Uncertainty:	0.186
MB MDC:	0.326
MB Numerical Performance Indicator:	2.30
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS64954	**LCSD64954**
Count Date:	3/7/2022	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.029	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.213	
Target Conc. (pCi/L, g, F):	11.304	
Uncertainty (Calculated):	0.136	
Result (pCi/L, g, F):	11.019	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.067	
Numerical Performance Indicator:	-0.52	
Percent Recovery:	97.48%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	1/25/2022	1/25/2022
Sample I.D.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Spike I.D.:	19-033	19-033
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.030	24.030
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):	0.204	0.203
MS Target Conc.(pCi/L, g, F):	23.508	23.703
MSD Aliquot (L, g, F):	0.204	0.202
MSD Target Conc. (pCi/L, g, F):	23.538	23.844
MS Spike Uncertainty (calculated):	0.282	0.284
MSD Spike Uncertainty (calculated):	0.282	0.286
Sample Result:	0.344	0.135
Sample Result Counting Uncertainty (pCi/L, g, F):	0.221	0.183
Sample Matrix Spike Result:	21.507	21.835
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.510	1.546
Sample Matrix Spike Duplicate Result:	24.332	24.899
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.610	1.632
MS Numerical Performance Indicator:	-2.963	-2.481
MSD Numerical Performance Indicator:	0.534	1.081
MS Percent Recovery:	90.02%	91.55%
MSD Percent Recovery:	101.91%	103.86%
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%

Duplicate Sample Assessment		
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?	See Below ##	
Duplicate Numerical Performance Indicator:		
Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD:		
% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.	30461864001	30462100003
Sample MS I.D.	30461864009	30462100025
Sample MSD I.D.	30461864010	30462100026
Sample Matrix Spike Result:	21.507	21.835
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.510	1.546
Sample Matrix Spike Duplicate Result:	24.332	24.899
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.610	1.632
Duplicate Numerical Performance Indicator:	-2.509	-2.671
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	12.39%	12.60%
MS/ MSD Duplicate Status vs Numerical Indicator:	N/A	N/A
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:

Appendix D

GROUNDWATER STATS CONSULTING

May 12, 2022

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Gorgas Gypsum Pond
1st Semi-Annual Statistical Analysis – January 2022

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 January 2022 1st semi-annual sample event for Alabama Power Company's Plant Gorgas Gypsum 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 (USEPA) Unified Guidance (2009).

Sampling began at this site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** MW-1, MW-2, MW-3, and MW-4
- **Downgradient wells:** GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8
- **Delineation wells:** GS-GSA-MW-3V, GS-GSA-MW-4V, GS-GSA-MW-8V, GS-GSA-MW-9H, GS-GSA-MW-9V, GS-GSA-MW-11H, GS-GSA-MW-12H, GS-GSA-MW-12V, GS-GSA-MW-13H, and GS-GSA-MW-14H
- **Piezometers:** GS-GSA-MW-01, GS-GSA-MW-02, GS-GSA-MW-10H, GS-GSA-MW-15H, GS-GSA-PZ-16, GS-GSA-PZ-17, GS-GSA-PZ-18, GS-GSA-PZ-19, GS-GSA-PZ-20, GS-GSA-PZ-21, GS-GSA-PZ-22, GS-GSA-MW-23VA, and GS-GSA-PZ-2A

Note that data from delineation wells did not require statistics; therefore, data were plotted only on time series and box plots. Piezometers only monitor water levels; therefore, they are not included in this analysis.

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 of Groundwater Stats Consulting.

The CCR program consists of the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

> **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
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan

- # Background Samples (Intrawell): 16
- # Background Samples (Interwell): 98
- # Constituents: 7
- # Downgradient wells: 3

Summary of Statistical Methods – Appendix III Parameters

Based on the earlier evaluation described above, the following statistical methods were selected:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for pH, sulfate, and TDS
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, and fluoride

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. Non-detects are handled as follows:

- 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 intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. 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. While the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Update Summaries

Fall 2019

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, are updated by testing for the appropriateness of consolidating new sampling observations with the screened background data and were last updated in September 2019. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate pH, sulfate, and TDS at all wells due to natural spatial variation for these parameters. Historical data were evaluated for updating with newer data through May 2019 through the use of time series graphs and Tukey's outlier test to identify potential outliers, when necessary, as well as the Mann Whitney test for equality of medians. This process is described below for the 2021 update and requires a minimum of four new data points. During the 2019 screening, all background data sets for constituents using intrawell prediction limits with the exception of TDS for downgradient well GS-GSA-MW-8 were updated through May 2019 and a summary of these results was included with the Mann Whitney test section in that report.

Interwell prediction limits are used to compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data for boron, calcium, chloride, and fluoride. As mentioned above, these limits are updated following each sampling event after careful screening for new outliers. Data from upgradient wells are also periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend. No adjustments were required in upgradient wells for constituents evaluated using interwell prediction limits.

Fall 2021

Outlier Analysis

Prior to performing prediction limits, proposed background data--through March 2021 for intrawell parameters and through July 2021 for interwell parameters--were reviewed through visual screening to identify any newly suspected outliers at all wells for pH, sulfate, and TDS, and at upgradient wells for boron, calcium, chloride, and fluoride. When values are identified as outliers, these measurements are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective.

During the screening, a high non-detect value for boron in upgradient well MW-4 and high detected values for sulfate and TDS in upgradient well MW-1 were flagged as outliers. Additionally, a low value for pH in upgradient well MW-3 was flagged. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the time series graphs, as well as in a lighter font on the accompanying data pages. A summary of flagged outliers follows this report (Figure C).

Intrawell – Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2019 to compliance data through March 2021. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- None

Decrease

- pH: MW-1 (upgradient)

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a naturally occurring shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is

of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

Although a statistically significant decrease was identified for pH in upgradient well MW-1, the decrease in in median concentrations was upgradient of the facility and not a representation of impacts from the facility. Additionally, the magnitude of the difference was small relative to the existing concentrations in background, and the compliance samples were stable. Therefore, this record was updated and all background data sets for CCR Appendix III constituents that use intrawell methods were updated. All records will be re-evaluated during the next background update.

Interwell – Trend Test Evaluation

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may require deselection prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective.

No statistically significant trends were noted in upgradient wells except for increasing trends for boron and fluoride in upgradient well MW-2; however, the increasing trends for boron is the result of high non-detects in the latter part of the record and the trend in fluoride is small relative to average concentrations. Therefore, no adjustments were made at this time. A summary of the results were submitted with the screening.

Evaluation of Appendix III Parameters – January 2022

Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for pH, sulfate, and TDS at each well using screened background data through March 2021 (Figure D). Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. The January 2022 observation at each well is compared to its respective background from the same well to determine whether initial exceedances are present.

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed for boron, calcium, chloride, and fluoride (Figure E). Interwell prediction limits pool upgradient well data through January 2022 to establish a background limit for an individual constituent. The January 2022 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary.

Complete prediction limits results and a summary of exceedances follow this letter. Exceedances were identified for the following well/constituent pairs:

Intrawell:

- pH: MW-2, MW-4 (both upgradient), and GS-GSA-MW-3
- Sulfate: GS-GSA-MW-4
- TDS: GS-GSA-MW-4

Interwell:

- Boron: GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8
- Calcium: GS-GSA-MW-3 and GS-GSA-MW-8
- Chloride: GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8

Trend Test Evaluation – Appendix III

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 F). 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: MW-2 (upgradient) and GS-GSA-MW-8
- Calcium: GS-GSA-MW-8
- Chloride: GS-GSA-MW-8
- pH: MW-2 (upgradient)
- TDS: MW-1 (upgradient)

Decreasing

- Chloride: GS-GSA-MW-4
- pH: MW-1 (upgradient)
- Sulfate: MW-4 (upgradient)
- TDS: MW-4 (upgradient)

Evaluation of Appendix IV Parameters – January 2022

Data from upgradient wells for Appendix IV parameters were assessed for outliers during previous analyses. No new outliers were flagged during this analysis.

During the previous analysis, high values for cobalt and lead in upgradient well MW-3 were flagged in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective. A previously flagged value of selenium (0.0209 mg/L) was unflagged in well MW-3. A summary of all flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management, the Groundwater Protections Standards (GWPS) were updated during the 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 tolerance limits constructed from pooled upgradient well data through July 2021 (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. 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.

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 H) in the confidence interval comparisons described below. Exceptions are noted in Figure H for beryllium and cadmium. For these two parameters, the MCL's were used as the GWPS rather than the higher background UTLs to maintain the more conservative standard.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through January 2022 for each of the Appendix IV parameters (Figure I). 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 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. No exceedances were noted for any of the well/constituent pairs.

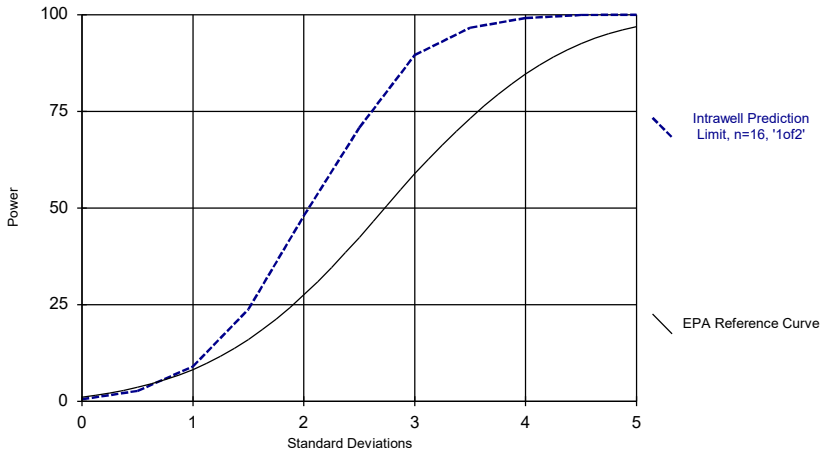
Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Gorgas Gypsum Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Abdul Diane
Groundwater Analyst

Andrew T. Collins
Project Manager

Intrawell Power Curve



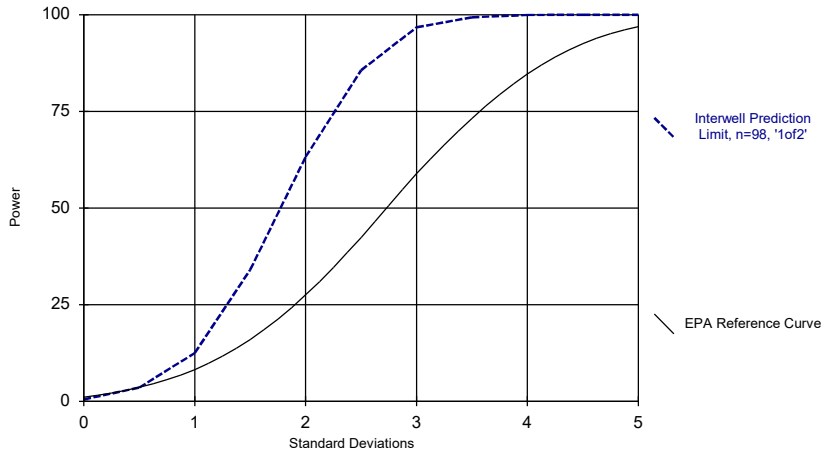
Kappa = 1.97, based on 3 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/12/2022 1:50 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Interwell Power Curve



Kappa = 1.674, based on 3 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/12/2022 1:50 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Beryllium (mg/L)
GS-GSA-MW-8

Cadmium (mg/L)
GS-GSA-MW-3, GS-GSA-MW-8

Mercury (mg/L)
GS-GSA-MW-3, GS-GSA-MW-4, GS-GSA-MW-8

Molybdenum (mg/L)
GS-GSA-MW-4

Selenium (mg/L)
GS-GSA-MW-8

Thallium (mg/L)
GS-GSA-MW-3, GS-GSA-MW-8

Appendix III Intrawell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	GS-GSA-MW-4	3.896	3.699	1/27/2022	3.73	No	17	3.798	0.05044	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	GS-GSA-MW-8	7.149	6.399	1/27/2022	6.85	No	17	6.774	0.1922	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	MW-1	5.249	5.046	1/25/2022	5.11	No	23	5.147	0.05471	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	MW-3	5.987	4.38	1/25/2022	5.9	No	23	149.3	35.15	0	None	x^3	0.001253	Param Intra 1 of 2
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-3	3163	n/a	1/26/2022	2620	No	16	2.3e10	4.4e9	0	None	x^3	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-8	2169	n/a	1/27/2022	2000	No	16	1541	318.8	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	1653	n/a	1/25/2022	1430	No	22	1456	105.3	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	1257	n/a	1/25/2022	842	No	23	1001	137.9	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	3195	n/a	1/25/2022	2550	No	23	2487	381.4	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-4	3107	n/a	1/25/2022	1930	No	22	2505	321.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	GS-GSA-MW-3	5170	n/a	1/26/2022	4260	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	GS-GSA-MW-8	4017	n/a	1/27/2022	3290	No	16	2978	527.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-1	2516	n/a	1/25/2022	2150	No	22	2201	168.2	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-2	2005	n/a	1/25/2022	1500	No	23	1648	192.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-3	4954	n/a	1/25/2022	3950	No	23	3773	635.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-4	4484	n/a	1/25/2022	3180	No	22	5.8e10	1.7e10	0	None	x^3	0.002505	Param Intra 1 of 2

Appendix III Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 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-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**

Appendix III Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 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-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	GS-GSA-MW-4	431	n/a	1/27/2022	181	No	99	n/a	n/a	0	n/a	n/a	0.0001981	NP Inter (normality) 1 of 2
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Fluoride (mg/L)	GS-GSA-MW-3	0.63	n/a	1/26/2022	0.447	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-4	0.63	n/a	1/27/2022	0.05ND	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-8	0.63	n/a	1/27/2022	0.179	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2

Appendix III Trend Test Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test Summary - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-GSA-MW-3	0.1215	11	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-GSA-MW-4	-0.3832	-53	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-1 (bg)	0.003819	110	111	No	25	32	n/a	n/a	0.01	NP
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-3 (bg)	0.002231	87	111	No	25	28	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003942	-28	-98	No	23	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-GSA-MW-3	-6.045	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-1 (bg)	2.531	86	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	2.037	42	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	10.56	65	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-4 (bg)	-6.803	-60	-105	No	24	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-GSA-MW-3	-6.058	-18	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-1 (bg)	-0.02423	-34	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.09448	-35	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.09968	71	111	No	25	8	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.06727	-80	-105	No	24	4.167	n/a	n/a	0.01	NP
pH (pH)	GS-GSA-MW-3	-0.06414	-61	-74	No	19	0	n/a	n/a	0.01	NP
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	MW-3 (bg)	0	-1	-111	No	25	0	n/a	n/a	0.01	NP
pH (pH)	MW-4 (bg)	0.008156	45	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-GSA-MW-4	9.649	25	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-1 (bg)	14.12	44	105	No	24	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	-36.24	-65	-111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-3 (bg)	110.7	99	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	GS-GSA-MW-4	5.547	17	68	No	18	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	MW-2 (bg)	-28.02	-47	-111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	MW-3 (bg)	192.9	99	111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Upper Tolerance Limits Summary Table

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 11/16/2021, 4:56 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.00143	n/a	n/a	n/a	95	n/a	n/a	93.68	n/a	n/a	0.007651	NP Inter
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	95	n/a	n/a	83.16	n/a	n/a	0.007651	NP Inter
Barium (mg/L)	n/a	0.0166	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Beryllium (mg/L)	n/a	0.0121	n/a	n/a	n/a	93	n/a	n/a	83.87	n/a	n/a	0.008478	NP Inter
Cadmium (mg/L)	n/a	0.00652	n/a	n/a	n/a	94	n/a	n/a	44.68	n/a	n/a	0.008054	NP Inter
Chromium (mg/L)	n/a	0.0105	n/a	n/a	n/a	95	n/a	n/a	89.47	n/a	n/a	0.007651	NP Inter
Cobalt (mg/L)	n/a	0.64	n/a	n/a	n/a	93	n/a	n/a	24.73	n/a	n/a	0.008478	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	1.47	n/a	n/a	n/a	81	n/a	n/a	0	n/a	n/a	0.01569	NP Inter
Fluoride (mg/L)	n/a	0.63	n/a	n/a	n/a	99	n/a	n/a	1.01	n/a	n/a	0.006232	NP Inter
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	94	n/a	n/a	94.68	n/a	n/a	0.008054	NP Inter
Lithium (mg/L)	n/a	0.419	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	95	n/a	n/a	100	n/a	n/a	0.007651	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	95	n/a	n/a	97.89	n/a	n/a	0.007651	NP Inter
Selenium (mg/L)	n/a	0.0209	n/a	n/a	n/a	95	n/a	n/a	58.95	n/a	n/a	0.007651	NP Inter
Thallium (mg/L)	n/a	0.000226	n/a	n/a	n/a	95	n/a	n/a	96.84	n/a	n/a	0.007651	NP Inter

GORGAS GYPSUM POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.0166	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00652	0.005
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	0.64	0.64
Combined Radium-226/228	pCi/L	1.47	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00692	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.0181	0.05
Thallium	mg/L	0.000226	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 Interval Summary Table - All Results (No Significant)

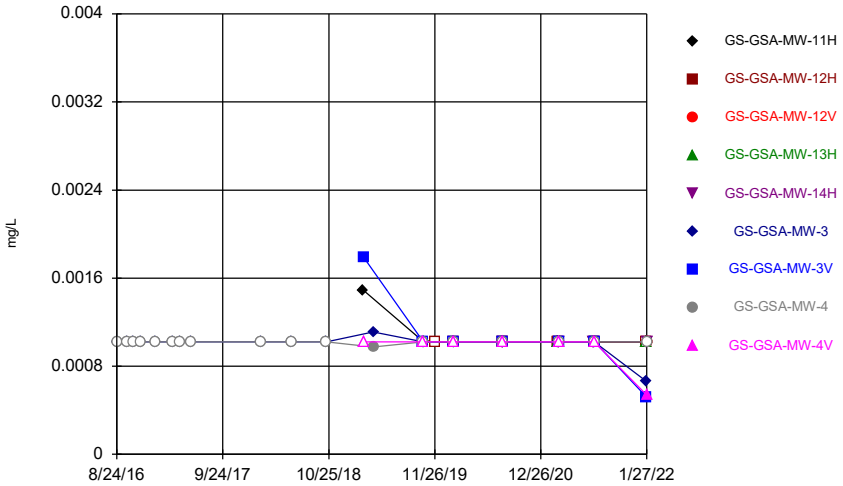
Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-GSA-MW-3	0.00111	0.00066	0.006	No	8	0.0001355	75	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-4	0.00102	0.000976	0.006	No	8	0.00001556	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-8	0.00102	0.00102	0.006	No	8	1.2e-11	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-GSA-MW-3	0.005	0.00057	0.01	No	8	0.002081	50	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-4	0.005	0.00115	0.01	No	8	0.001323	12.5	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-8	0.005	0.00024	0.01	No	8	0.002393	62.5	No	0.004	NP (NDs)
Barium (mg/L)	GS-GSA-MW-3	0.01522	0.01286	2	No	8	0.001115	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-4	0.01418	0.01174	2	No	8	0.001149	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-8	0.0235	0.02	2	No	8	0.001653	0	No	0.01	Param.
Beryllium (mg/L)	GS-GSA-MW-3	0.00345	0.00141	0.004	No	8	0.0006843	0	No	0.004	NP (normality)
Beryllium (mg/L)	GS-GSA-MW-4	0.00768	0.00369	0.004	No	8	0.001358	0	No	0.004	NP (normality)
Cadmium (mg/L)	GS-GSA-MW-4	0.00336	0.00143	0.005	No	8	0.0006563	0	No	0.004	NP (normality)
Chromium (mg/L)	GS-GSA-MW-3	0.01	0.000386	0.1	No	8	0.004959	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-4	0.01	0.000567	0.1	No	8	0.004774	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-8	0.01	0.0003	0.1	No	8	0.004972	62.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-GSA-MW-3	0.136	0.06788	0.64	No	8	0.03212	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-4	0.3289	0.1716	0.64	No	8	0.07419	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-8	0.00546	0.00026	0.64	No	8	0.002143	62.5	No	0.004	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-3	0.6243	0.2672	5	No	8	0.1726	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-4	1.168	0.277	5	No	8	0.4204	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-8	1.021	-0.01234	5	No	8	0.4876	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-3	0.7083	0.393	4	No	8	0.1488	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-4	0.44	0.05	4	No	8	0.1379	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	GS-GSA-MW-8	0.1894	0.1083	4	No	8	0.03827	0	No	0.01	Param.
Lead (mg/L)	GS-GSA-MW-3	0.0002	0.00014	0.015	No	8	0.00002378	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-4	0.00103	0.0002	0.015	No	8	0.0003351	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-8	0.0002	0.000145	0.015	No	8	0.00002434	75	No	0.004	NP (NDs)
Lithium (mg/L)	GS-GSA-MW-3	0.4994	0.3666	0.419	No	8	0.06719	0	x^2	0.01	Param.
Lithium (mg/L)	GS-GSA-MW-4	0.671	0.262	0.419	No	8	0.1473	0	No	0.004	NP (normality)
Lithium (mg/L)	GS-GSA-MW-8	0.2131	0.1702	0.419	No	8	0.02023	0	No	0.01	Param.
Molybdenum (mg/L)	GS-GSA-MW-3	0.01	0.00022	0.1	No	8	0.005055	62.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-GSA-MW-8	0.01	0.00012	0.1	No	8	0.004722	62.5	No	0.004	NP (NDs)
Selenium (mg/L)	GS-GSA-MW-3	0.01	0.00117	0.05	No	8	0.004498	50	No	0.004	NP (normality)
Selenium (mg/L)	GS-GSA-MW-4	0.01	0.00294	0.05	No	8	0.003295	37.5	No	0.004	NP (normality)
Thallium (mg/L)	GS-GSA-MW-4	0.001	0.00009	0.002	No	8	0.0004436	50	No	0.004	NP (normality)

FIGURE A.

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

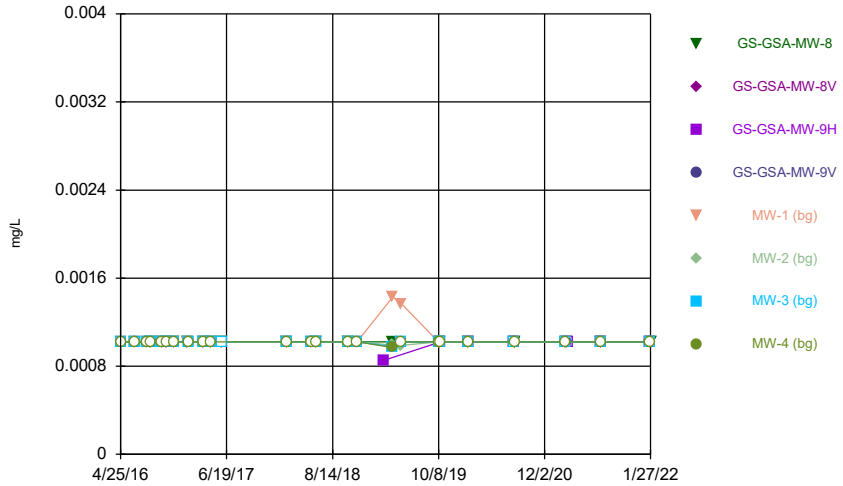
Time Series



Constituent: Antimony Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
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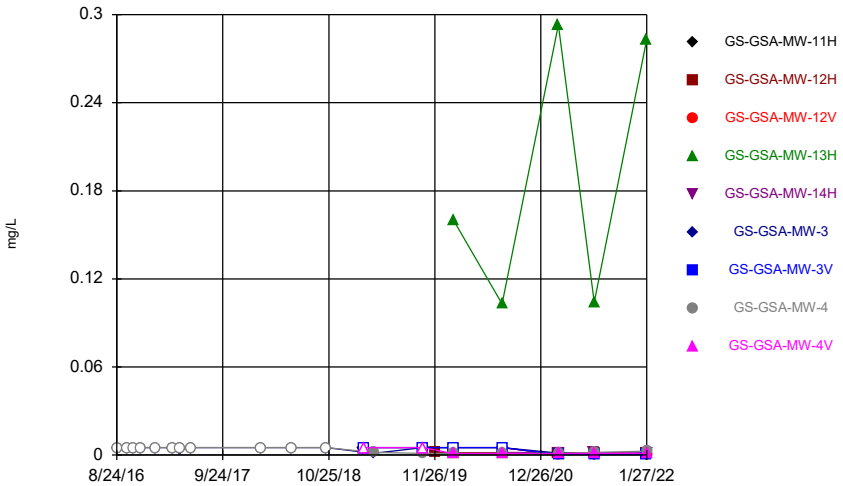
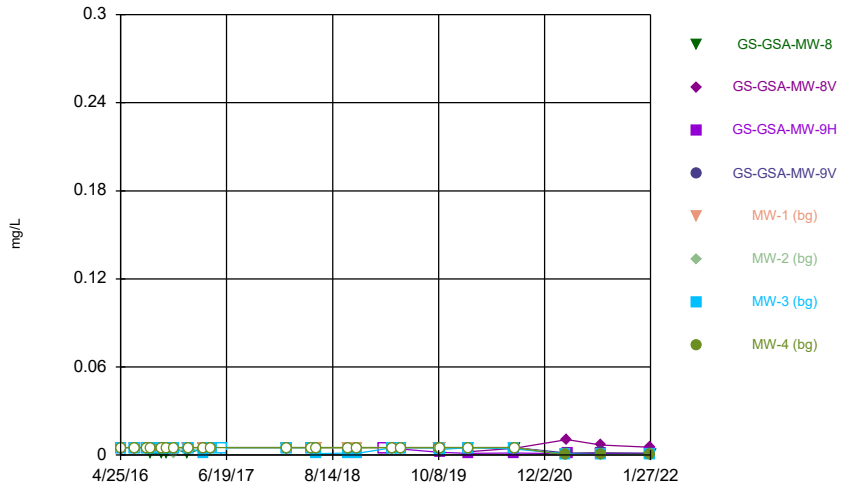
Time Series



Constituent: Arsenic Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

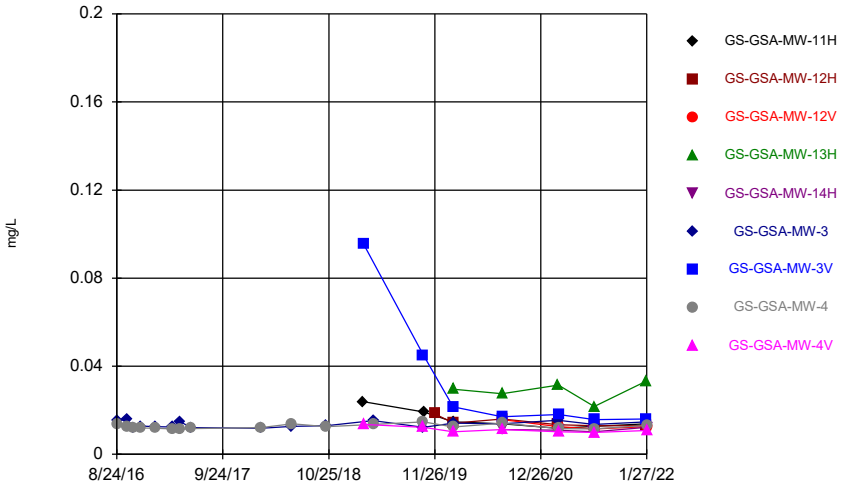
Time Series



Constituent: Arsenic Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

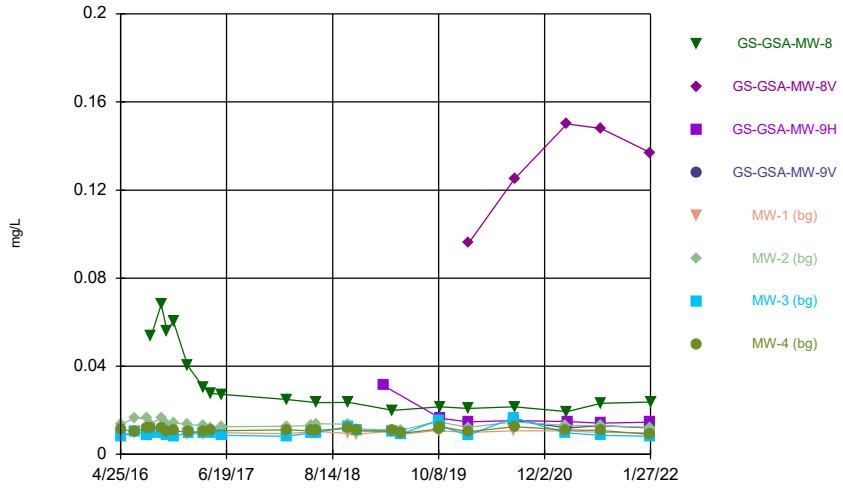
Time Series



Constituent: Barium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

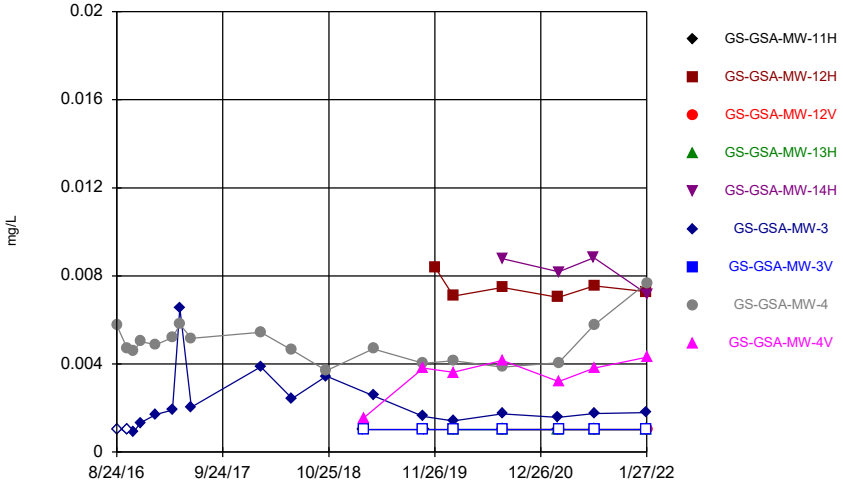
Time Series



Constituent: Barium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

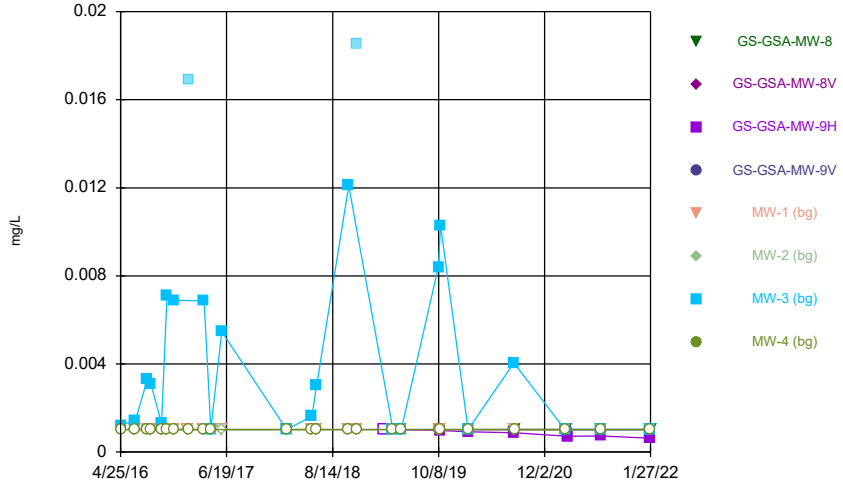
Time Series



Constituent: Beryllium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

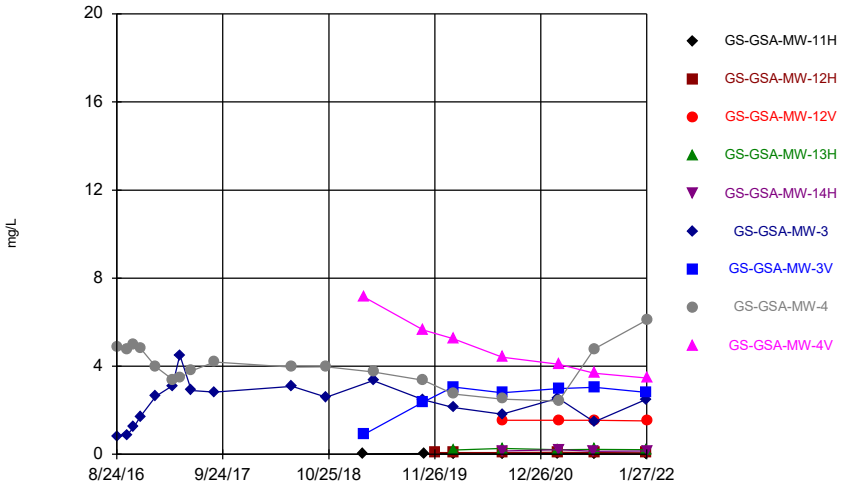
Time Series



Constituent: Beryllium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

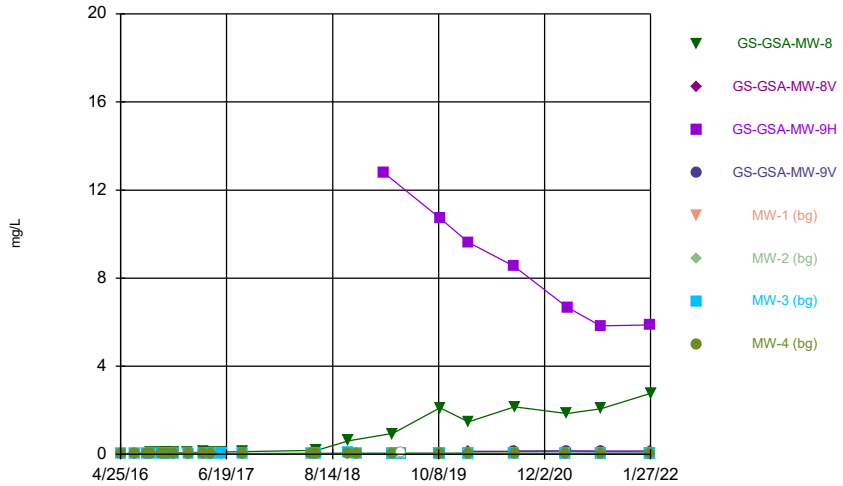
Time Series



Constituent: Boron Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

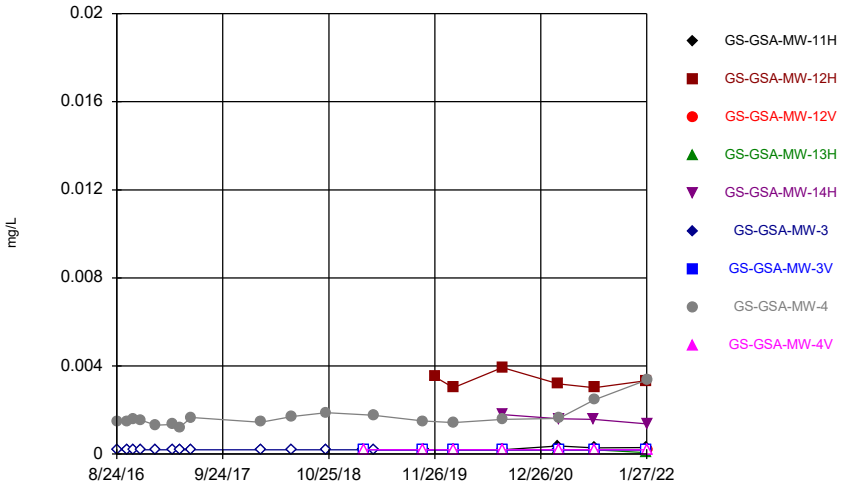
Time Series



Constituent: Boron Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

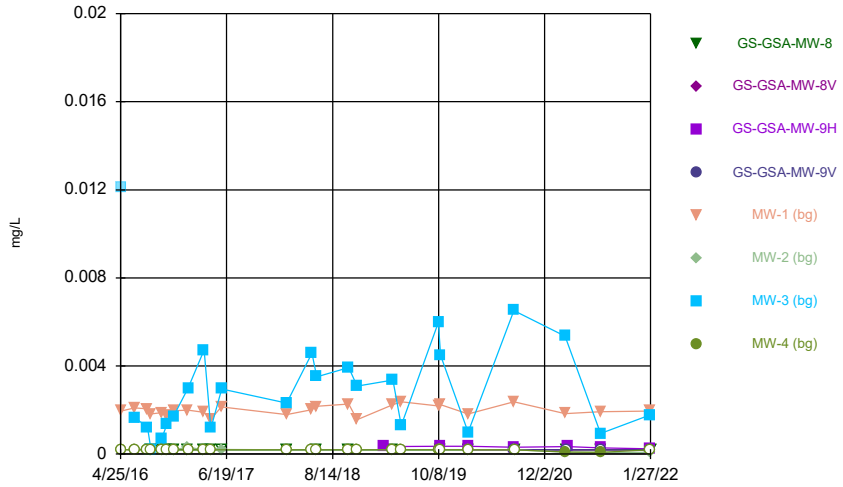
Time Series



Constituent: Cadmium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

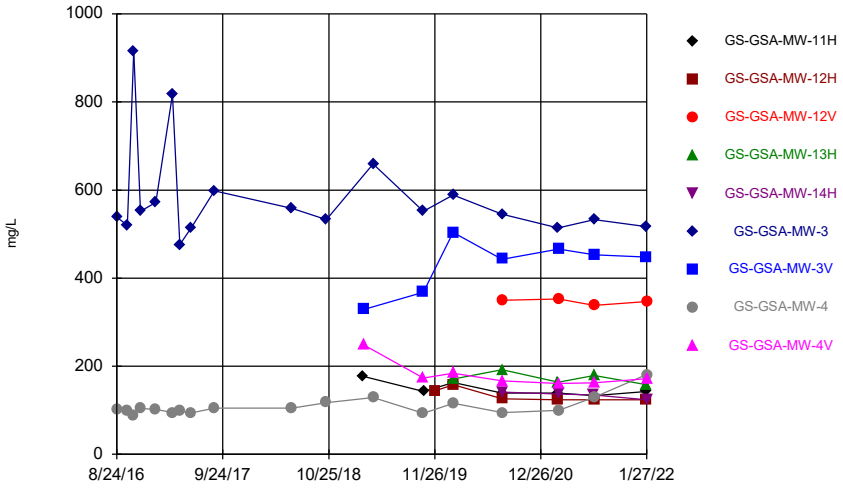
Time Series



Constituent: Cadmium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

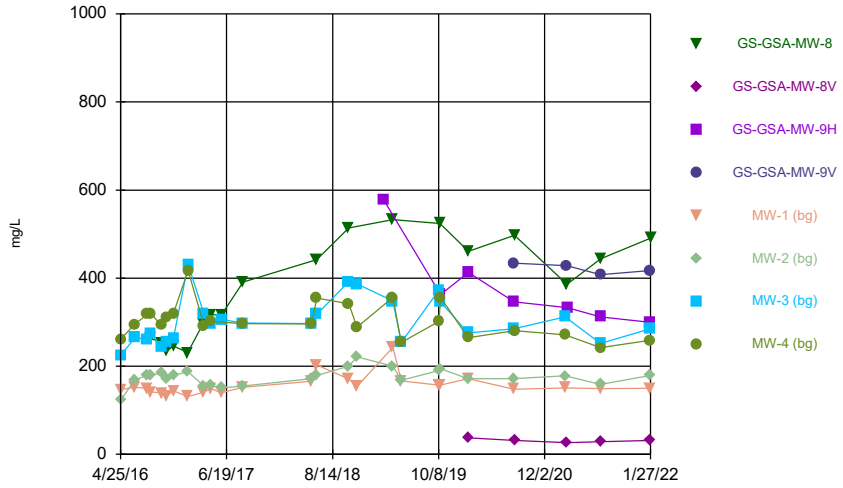
Time Series



Constituent: Calcium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

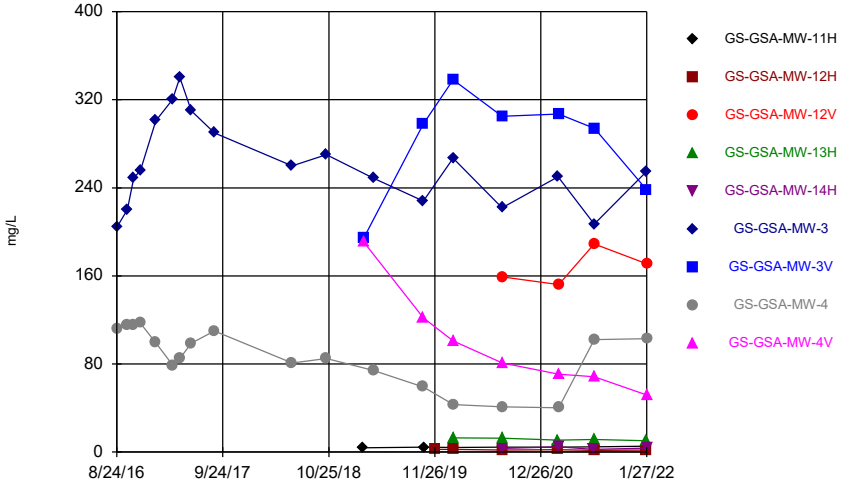
Time Series



Constituent: Calcium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

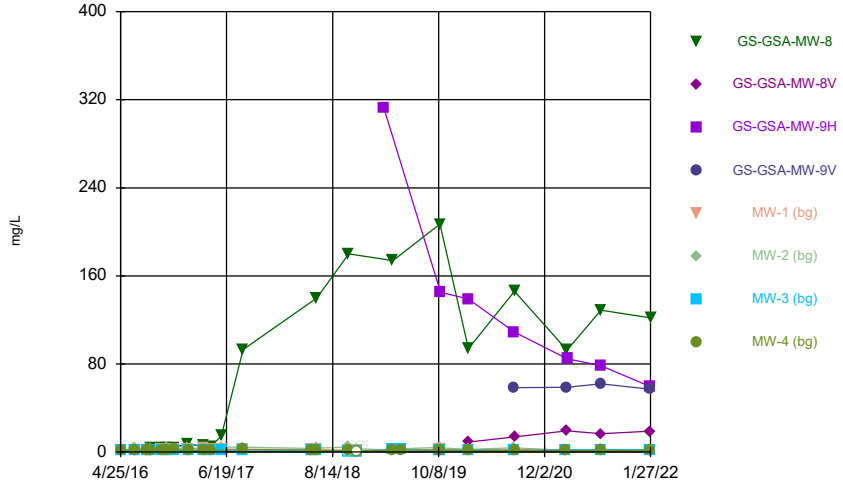
Time Series



Constituent: Chloride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

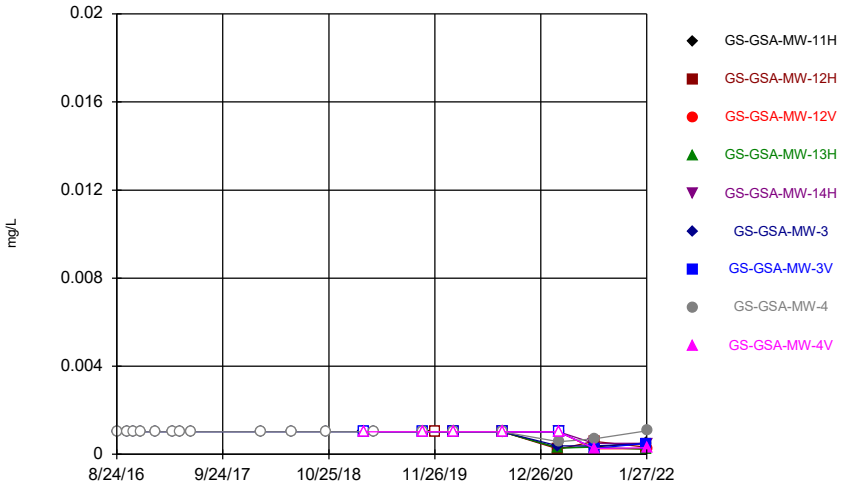
Time Series



Constituent: Chloride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

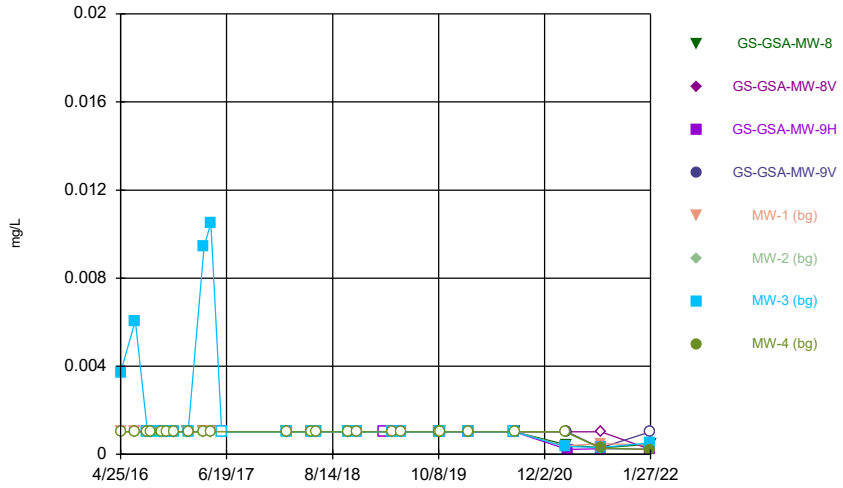
Time Series



Constituent: Chromium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

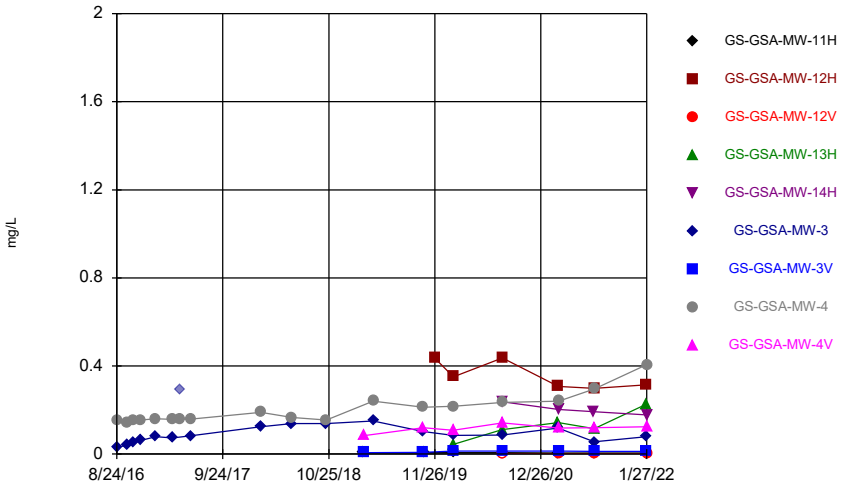
Time Series



Constituent: Chromium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

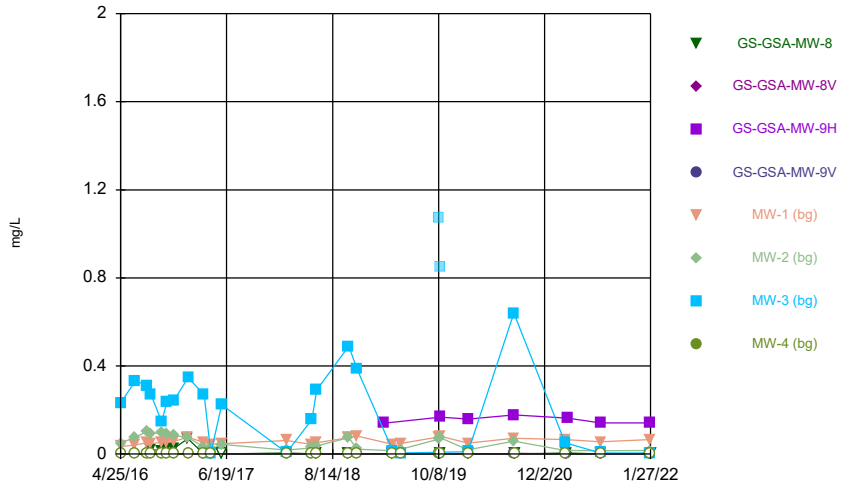
Time Series



Constituent: Cobalt Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

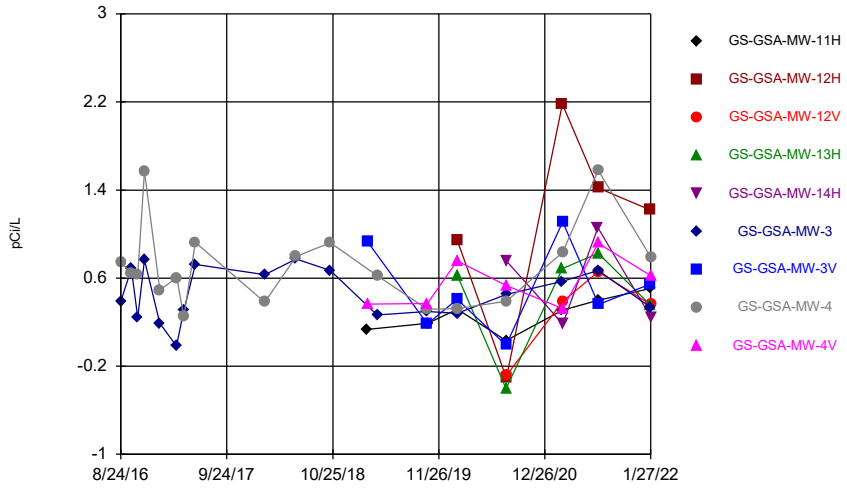
Time Series



Constituent: Cobalt Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

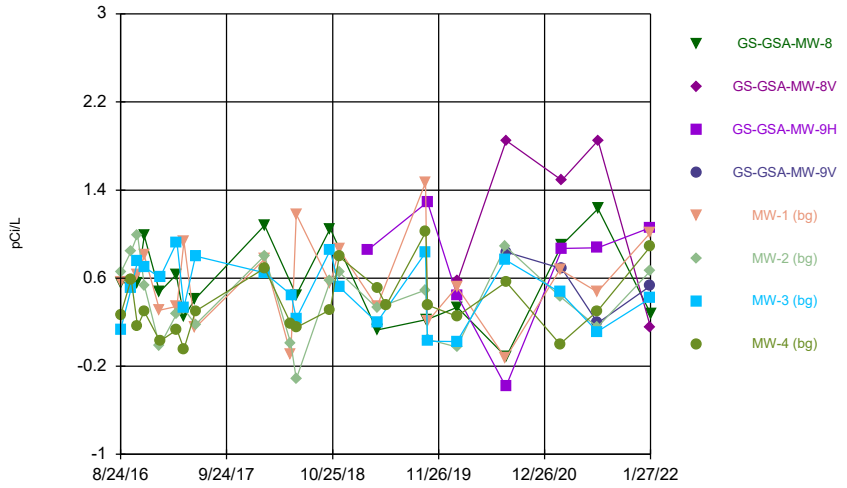
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

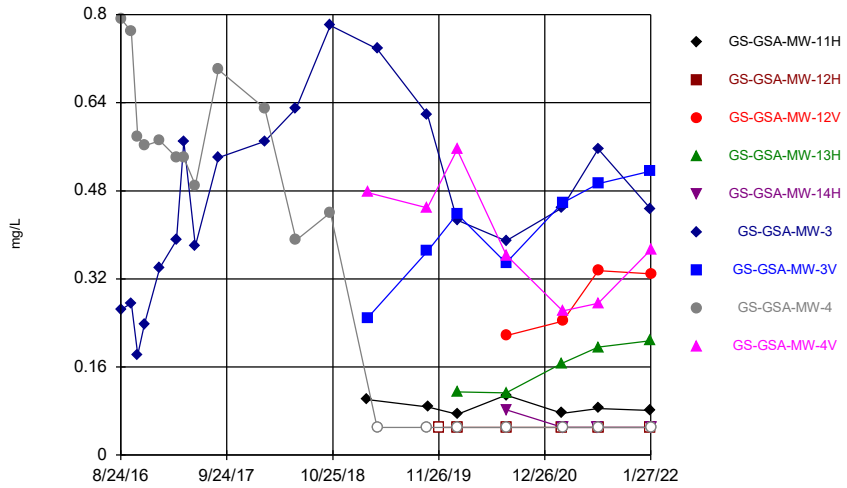
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

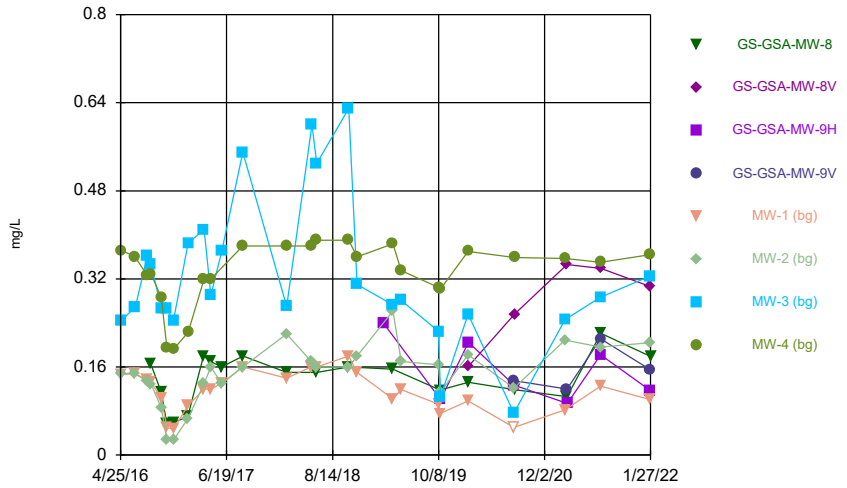
Time Series



Constituent: Fluoride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

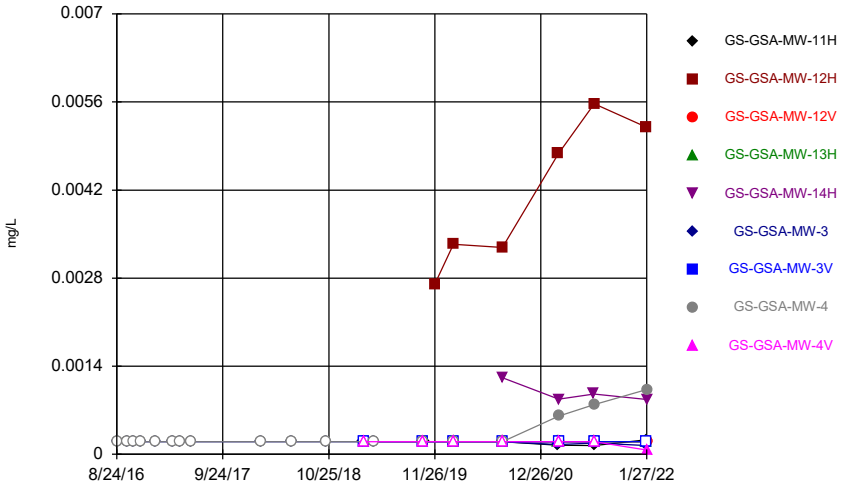
Time Series



Constituent: Fluoride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

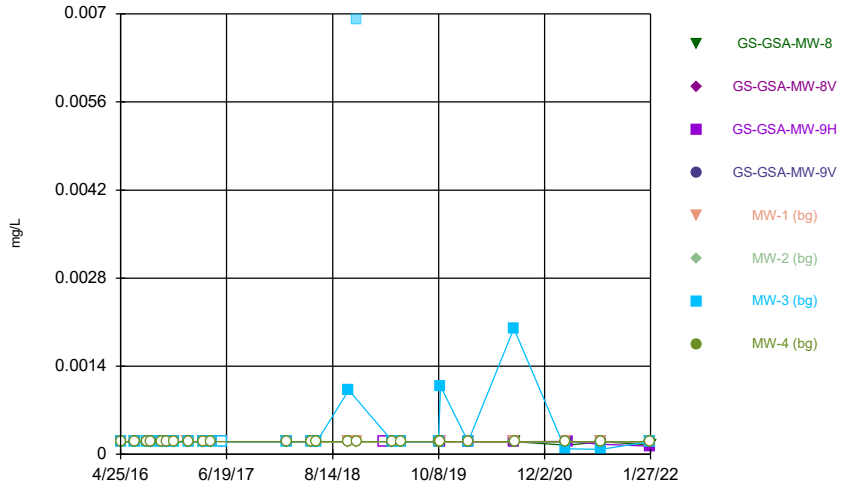
Time Series



Constituent: Lead Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Lead Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

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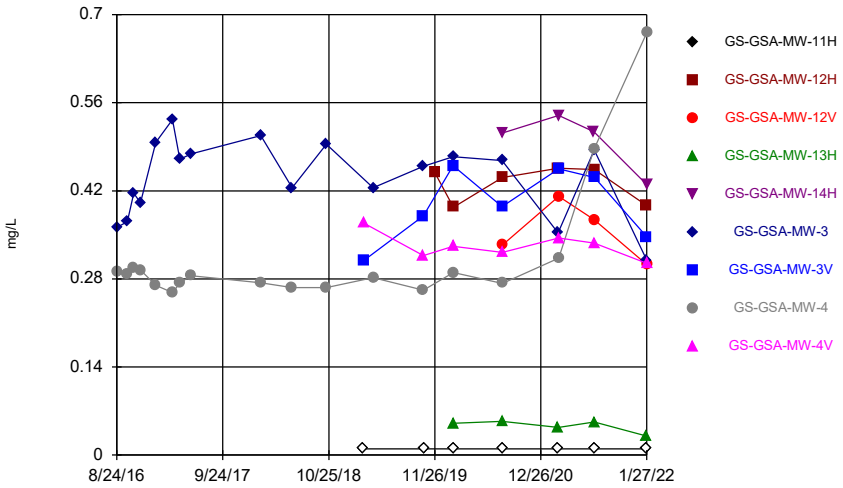
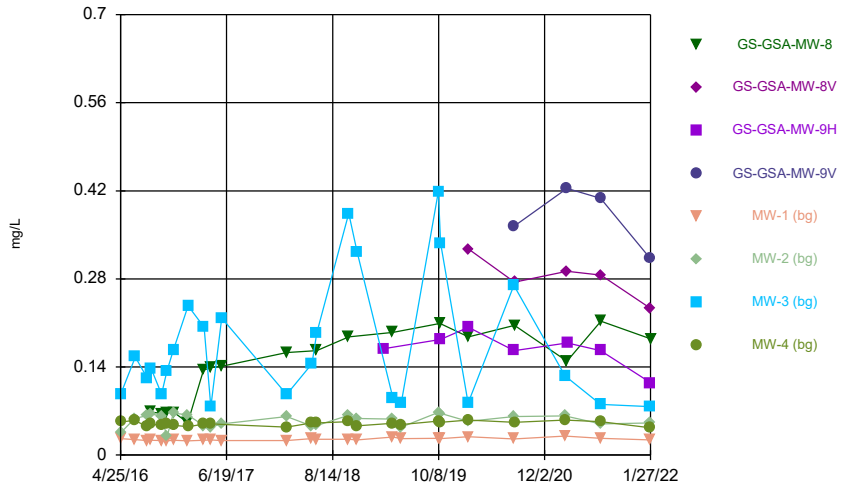


Constituent: Lithium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

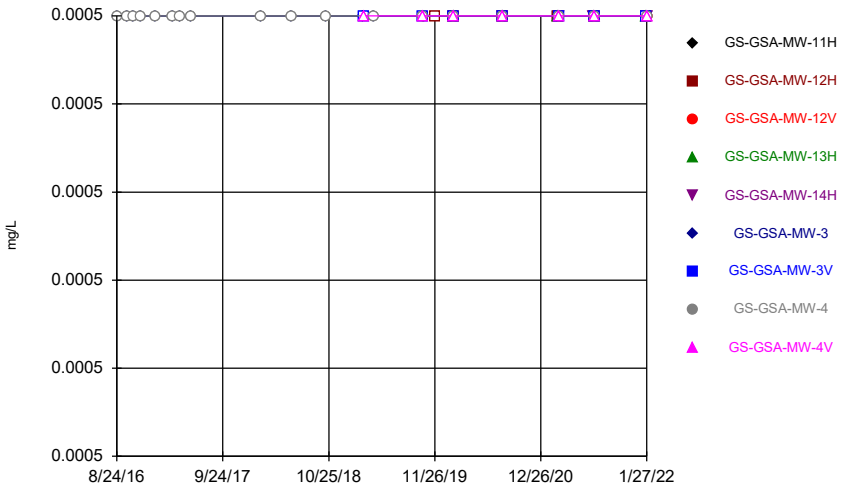
Time Series



Constituent: Lithium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

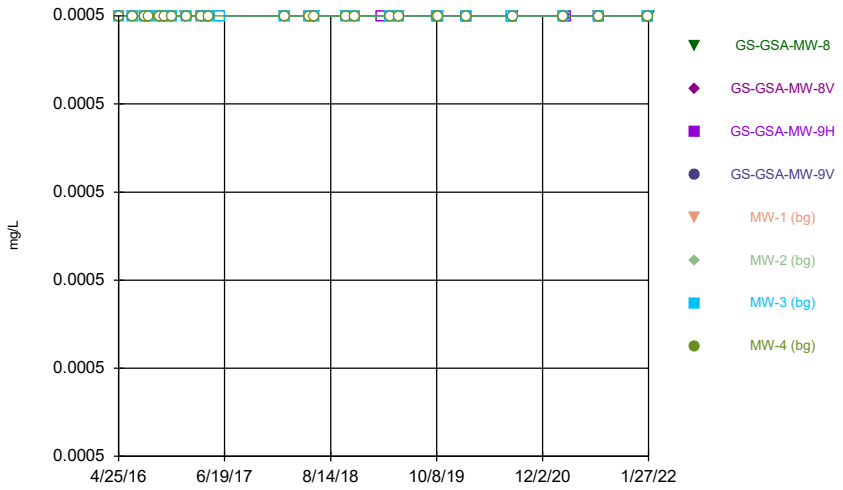
Time Series



Constituent: Mercury Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

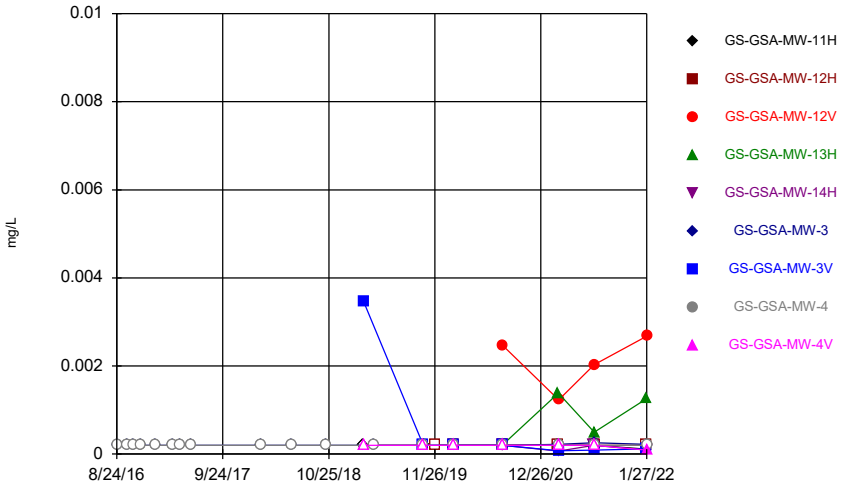
Time Series



Constituent: Mercury Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

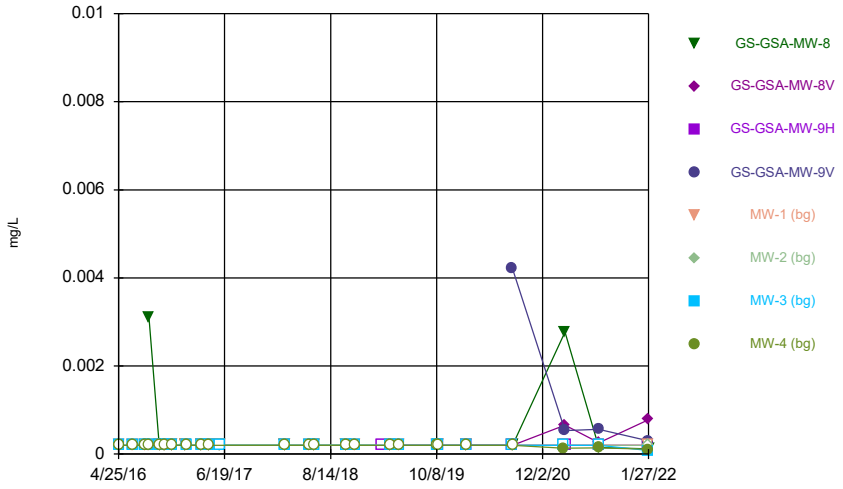
Time Series



Constituent: Molybdenum Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

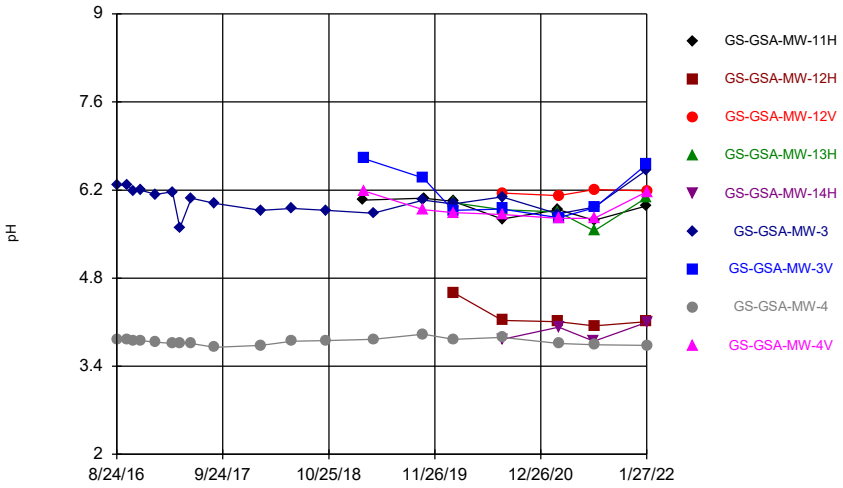
Time Series



Constituent: Molybdenum Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

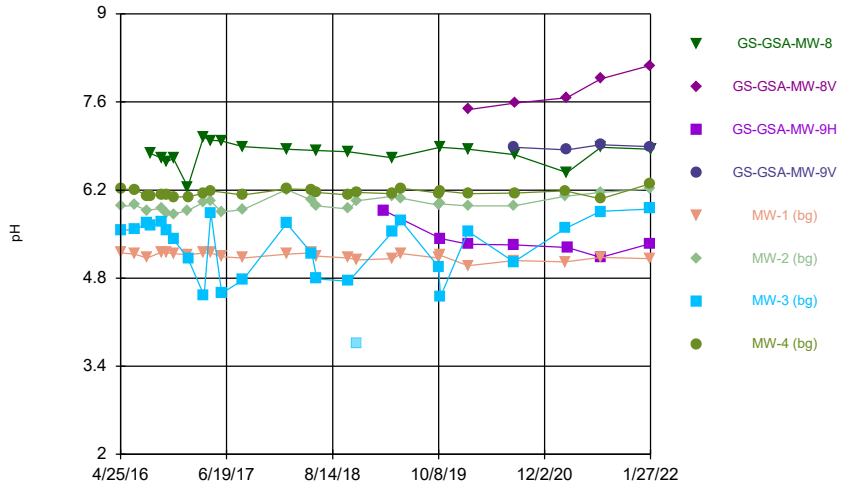
Time Series



Constituent: pH Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

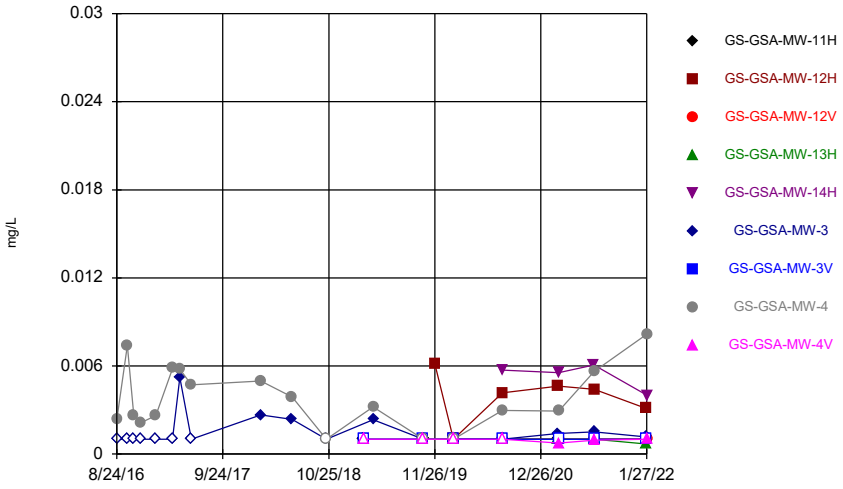
Time Series



Constituent: pH Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

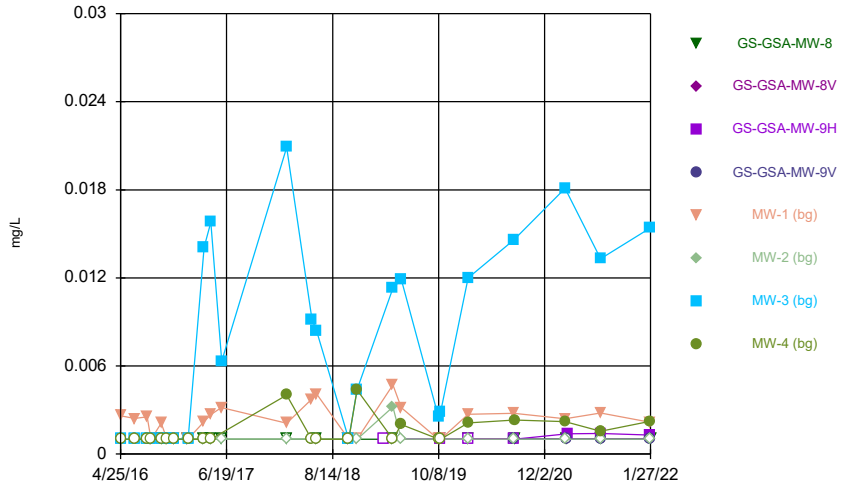
Time Series



Constituent: Selenium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

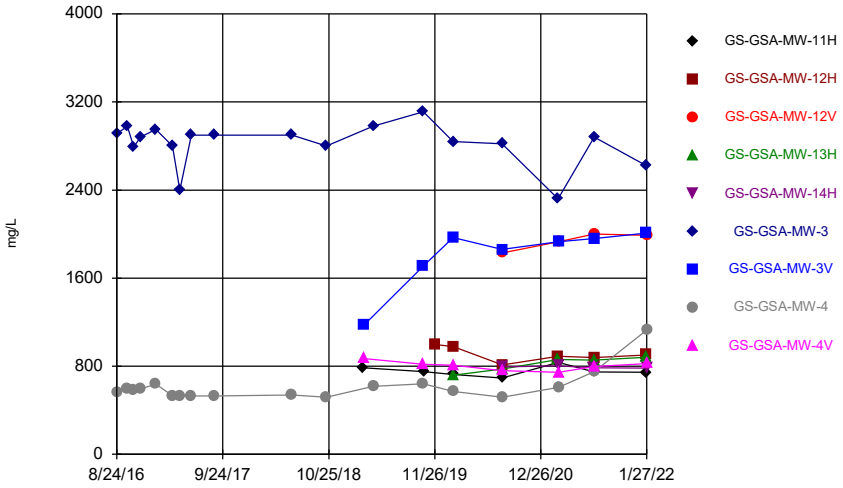
Time Series



Constituent: Selenium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

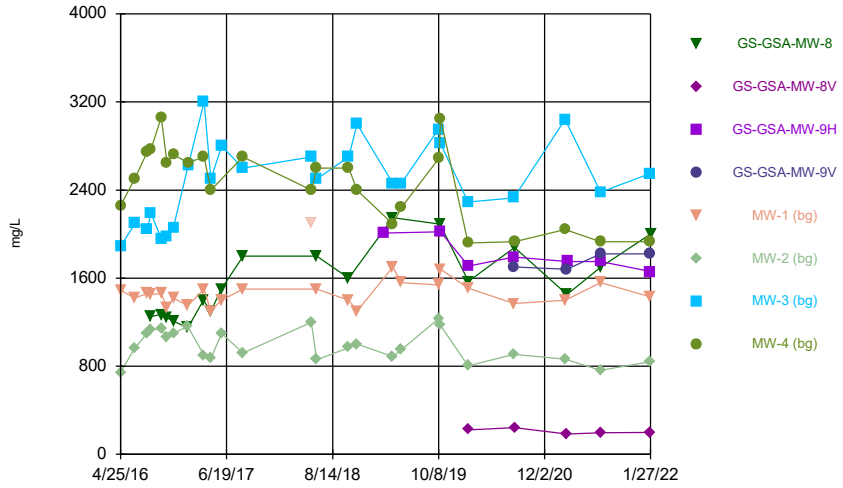
Time Series



Constituent: Sulfate Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

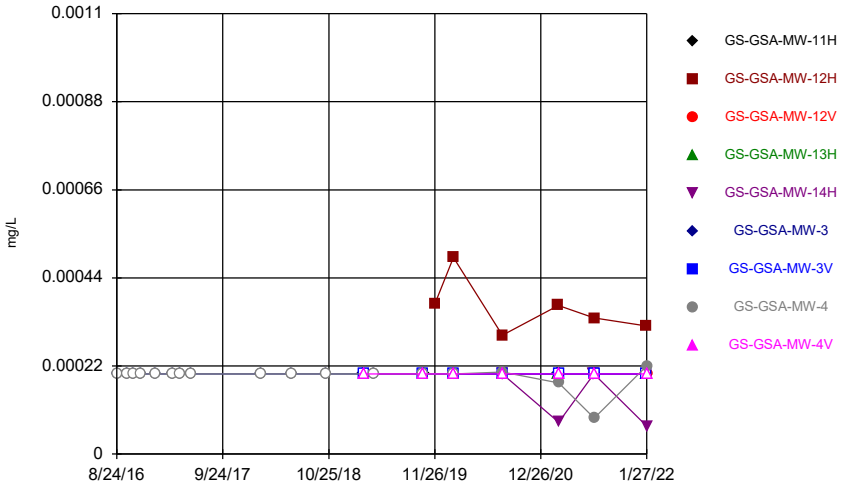
Time Series



Constituent: Sulfate Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

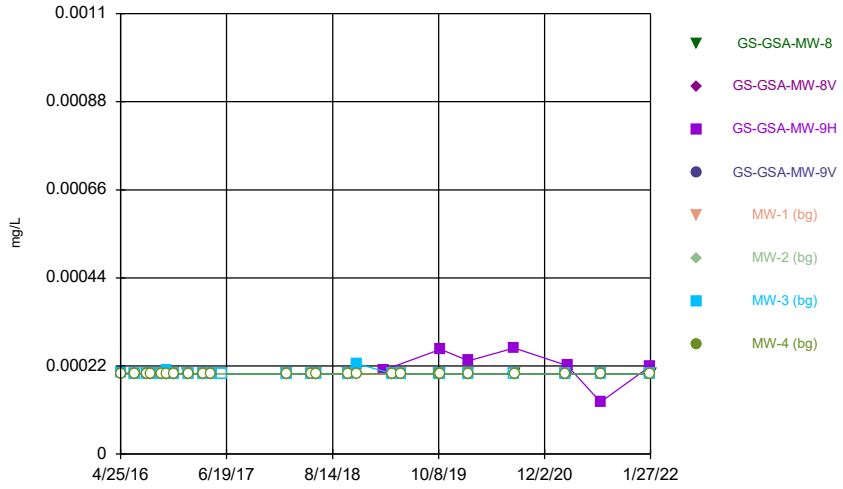
Time Series



Constituent: Thallium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

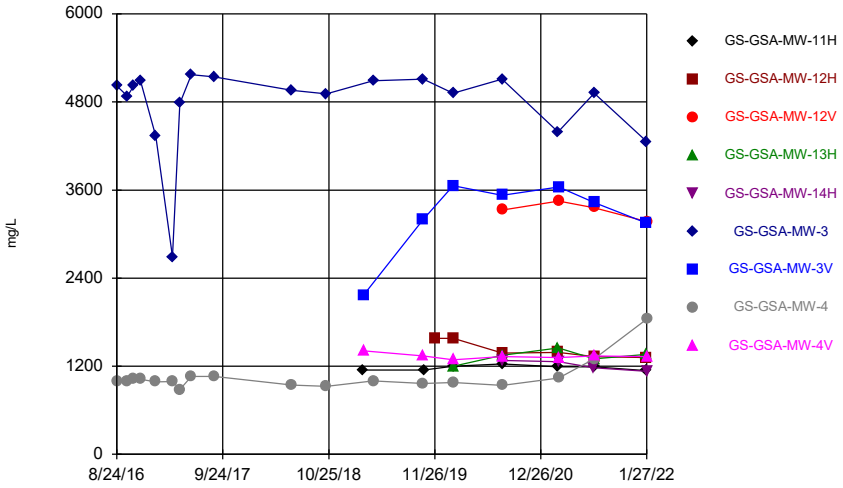
Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

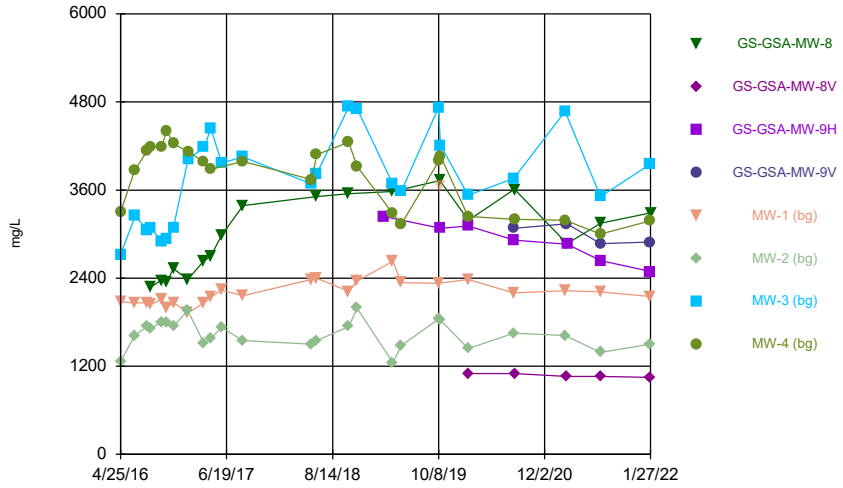
Time Series



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Time Series



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		<0.00102	
10/3/2016						<0.00102		<0.00102	
10/26/2016						<0.00102		<0.00102	
11/21/2016						<0.00102		<0.00102	
1/17/2017						<0.00102		<0.00102	
3/20/2017						<0.00102			
3/21/2017								<0.00102	
4/17/2017						<0.00102		<0.00102	
5/30/2017						<0.00102		<0.00102	
2/13/2018						<0.00102		<0.00102	
6/11/2018						<0.00102		<0.00102	
10/17/2018						<0.00102		<0.00102	
3/4/2019	0.00149 (J)								
3/5/2019							0.00179 (J)		<0.00102
4/10/2019						0.00111 (J)		0.000976 (J)	
10/14/2019						<0.00102	<0.00102	<0.00102	<0.00102
10/16/2019	<0.00102								
11/26/2019		<0.00102							
2/3/2020						<0.00102	<0.00102		<0.00102
2/4/2020	<0.00102	<0.00102		<0.00102				<0.00102	
8/4/2020	<0.00102			<0.00102		<0.00102	<0.00102		
8/5/2020		<0.00102	<0.00102		<0.00102			<0.00102	<0.00102
3/1/2021						<0.00102			
3/2/2021	<0.00102	<0.00102		<0.00102					
3/3/2021			<0.00102		<0.00102		<0.00102	<0.00102	<0.00102
7/13/2021					<0.00102				
7/14/2021	<0.00102	<0.00102	<0.00102	<0.00102		<0.00102		<0.00102	<0.00102
7/15/2021							<0.00102		
1/25/2022		<0.00102							
1/26/2022	<0.00102			<0.00102		0.00066 (J)	0.00052 (J)		
1/27/2022			<0.00102		<0.00102			<0.00102	0.00054 (J)

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	<0.00102	<0.00102
4/26/2016					<0.00102			
6/20/2016					<0.00102	<0.00102		<0.00102
6/22/2016							<0.00102	
8/8/2016					<0.00102	<0.00102		
8/9/2016							<0.00102	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/3/2016	<0.00102				<0.00102	<0.00102		<0.00102
10/4/2016							<0.00102	
10/26/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							<0.00102	<0.00102
3/20/2017	<0.00102							
3/22/2017					<0.00102	<0.00102	<0.00102	<0.00102
4/18/2017	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/30/2017	<0.00102				<0.00102			
5/31/2017						<0.00102	<0.00102	
2/13/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/22/2018					<0.00102	<0.00102		
5/23/2018								<0.00102
5/24/2018							<0.00102	
6/12/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/19/2018					<0.00102	<0.00102	<0.00102	<0.00102
3/5/2019			0.000852 (J)					
4/10/2019	0.00102 (J)				0.00143 (J)	0.000993 (J)	0.000978 (J)	0.00097 (J)
5/14/2019					0.00137 (J)	0.000989 (J)	<0.00102	<0.00102
10/8/2019					<0.00102	<0.00102	<0.00102	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			<0.00102		<0.00102	<0.00102	<0.00102	<0.00102
2/3/2020					<0.00102	<0.00102	<0.00102	<0.00102
2/4/2020	<0.00102		<0.00102					
2/5/2020		<0.00102						
8/3/2020					<0.00102	<0.00102	<0.00102	
8/4/2020			<0.00102	<0.00102				
8/5/2020	<0.00102	<0.00102						<0.00102
2/22/2021					<0.00102	<0.00102	<0.00102	<0.00102
3/1/2021	<0.00102	<0.00102		<0.00102				
3/2/2021			<0.00102					
7/12/2021					<0.00102	<0.00102	<0.00102	<0.00102
7/13/2021			<0.00102	<0.00102				
7/14/2021	<0.00102	<0.00102						
1/25/2022					<0.00102	<0.00102	<0.00102	<0.00102
1/26/2022		<0.00102	<0.00102	<0.00102				
1/27/2022	<0.00102							

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.005		<0.005	
10/3/2016						<0.005		<0.005	
10/26/2016						<0.005		<0.005	
11/21/2016						<0.005		<0.005	
1/17/2017						<0.005		<0.005	
3/20/2017						<0.005			
3/21/2017								<0.005	
4/17/2017						0.00405 (J)		<0.005	
5/30/2017						<0.005		<0.005	
2/13/2018						<0.005		<0.005	
6/11/2018						<0.005		<0.005	
10/17/2018						<0.005		<0.005	
3/4/2019	<0.005								
3/5/2019							<0.005		<0.005
4/10/2019						0.00121 (J)		0.00176 (J)	
10/14/2019						<0.005	<0.005	0.0012 (J)	<0.005
10/16/2019	<0.005								
11/26/2019		0.00194 (J)							
2/3/2020						<0.005	<0.005		0.00101 (J)
2/4/2020	<0.005	0.00157 (J)		0.16				0.00128 (J)	
8/4/2020	<0.005			0.103		<0.005	<0.005		
8/5/2020		0.00158 (J)	<0.005		0.00181 (J)			0.00115 (J)	0.00116 (J)
3/1/2021						0.0014			
3/2/2021	0.00039	0.00138		0.293					
3/3/2021			0.000339		0.00155		0.000296	0.00116	0.00107
7/13/2021					0.00172				
7/14/2021	0.00041	0.00161	0.00048	0.104		0.00057		0.00174	0.00118
7/15/2021							0.00028		
1/25/2022		0.00129							
1/26/2022	0.00043			0.283		0.00136	0.00036		
1/27/2022			0.00066		0.00128			0.00274	0.00124

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.005	<0.005	<0.005
4/26/2016					<0.005			
6/20/2016					<0.005	<0.005		<0.005
6/22/2016							<0.005	
8/8/2016					<0.005	<0.005		
8/9/2016							<0.005	<0.005
8/24/2016	0.00119 (J)				<0.005	<0.005	<0.005	<0.005
10/3/2016	0.00114 (J)				<0.005	<0.005		<0.005
10/4/2016							<0.005	
10/26/2016	0.0011 (J)				<0.005	<0.005	<0.005	<0.005
11/21/2016	<0.005				<0.005	0.00111 (J)	<0.005	<0.005
1/17/2017	0.00103 (J)				<0.005	<0.005		
1/18/2017							<0.005	<0.005
3/20/2017	<0.005							
3/22/2017					<0.005	<0.005	0.00122 (J)	<0.005
4/18/2017	<0.005				<0.005	<0.005	<0.005	<0.005
5/30/2017	<0.005				<0.005			
5/31/2017						<0.005	<0.005	
2/13/2018	<0.005				<0.005	<0.005	<0.005	<0.005
5/22/2018					<0.005	<0.005		
5/23/2018								<0.005
5/24/2018							<0.005	
6/12/2018	<0.005				<0.005	<0.005	0.00103 (J)	<0.005
10/17/2018	<0.005				<0.005	<0.005	0.00133 (J)	<0.005
11/19/2018					<0.005	<0.005	0.0012 (J)	<0.005
3/5/2019			<0.005					
4/10/2019	<0.005				<0.005	<0.005	<0.005	<0.005
5/14/2019					<0.005	<0.005	<0.005	<0.005
10/8/2019					<0.005	<0.005	0.0048 (J)	
10/10/2019								<0.005
10/14/2019	<0.005							
10/16/2019			0.0019 (J)		<0.005	<0.005	0.00389 (J)	<0.005
2/3/2020					<0.005	<0.005	<0.005	<0.005
2/4/2020	<0.005		0.00123 (J)					
2/5/2020		0.00232 (J)						
8/3/2020					<0.005	<0.005	0.00426 (J)	
8/4/2020			0.00137 (J)	<0.005				
8/5/2020	<0.005	0.00476 (J)						<0.005
2/22/2021					0.000403	0.000295	0.000789	0.000125 (J)
3/1/2021	0.000633	0.0105		0.00136				
3/2/2021			0.00105					
7/12/2021					0.00036	0.00036	0.00038	0.00012 (J)
7/13/2021			0.00113	0.00168				
7/14/2021	0.00024	0.00692						
1/25/2022					0.00025	0.00033	0.00027	9E-05 (J)
1/26/2022		0.00542	0.00113	0.00128				
1/27/2022	0.00027							

Time Series

Constituent: Barium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.0155		0.0135	
10/3/2016						0.0156		0.0127	
10/26/2016						0.0122		0.0118	
11/21/2016						0.0128		0.012	
1/17/2017						0.0125		0.0119	
3/20/2017						0.0124			
3/21/2017								0.0116	
4/17/2017						0.0149		0.0112	
5/30/2017						0.0121		0.0117	
2/13/2018						0.0118		0.0121	
6/11/2018						0.0127		0.0139	
10/17/2018						0.013		0.0125	
3/4/2019	0.0239								
3/5/2019							0.0956		0.0136
4/10/2019						0.0153		0.0136	
10/14/2019						0.0122	0.0451	0.0147	0.0123
10/16/2019	0.0192								
11/26/2019		0.0184							
2/3/2020						0.0141	0.0215		0.0103
2/4/2020	0.0148	0.0141		0.0296				0.0124	
8/4/2020	0.0138			0.0275		0.0139	0.017		
8/5/2020		0.016	0.0157		0.0113			0.0142	0.0112
3/1/2021						0.0154			
3/2/2021	0.0118	0.0134		0.0315					
3/3/2021			0.0126		0.0109		0.0181	0.0117	0.0103
7/13/2021					0.0102				
7/14/2021	0.0127	0.013	0.0116	0.0217		0.0136		0.0115	0.01
7/15/2021							0.0157		
1/25/2022		0.013							
1/26/2022	0.0139			0.0334		0.0148	0.0161		
1/27/2022			0.0125		0.0122			0.0131	0.0108

Time Series

Constituent: Barium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0134	0.00803 (J)	0.0114
4/26/2016					0.00941 (J)			
6/20/2016					0.00951 (J)	0.0165		0.0103
6/22/2016							0.0101	
8/8/2016					0.00991 (J)	0.0162		
8/9/2016							0.00889 (J)	0.0119
8/24/2016	0.0536				0.00949 (J)	0.0139	0.00962 (J)	0.0118
10/3/2016	0.0681				0.0105	0.0164		0.0119
10/4/2016							0.00984 (J)	
10/26/2016	0.0562				0.00931 (J)	0.0138	0.00878 (J)	0.0104
11/21/2016	0.0604				0.00879 (J)	0.0144	0.00833 (J)	0.0106
1/17/2017	0.0402				0.00929 (J)	0.0135		
1/18/2017							0.00966 (J)	0.0101
3/20/2017	0.0305							
3/22/2017					0.00938 (J)	0.0132	0.00991 (J)	0.0103
4/18/2017	0.0276				0.00964 (J)	0.012	0.00976 (J)	0.0107
5/30/2017	0.0272				0.00982 (J)			
5/31/2017						0.0126	0.00866 (J)	
2/13/2018	0.0249				0.00937 (J)	0.0127	0.00821 (J)	0.0111
5/22/2018					0.0102	0.0131		
5/23/2018								0.0107
5/24/2018							0.00977 (J)	
6/12/2018	0.0234				0.0104	0.0138	0.00997 (J)	0.0108
10/17/2018	0.0236				0.00952 (J)	0.0137	0.0126	0.0119
11/19/2018					0.00915 (J)	0.0115	0.0109	0.0107
3/5/2019			0.0312					
4/10/2019	0.02				0.0105	0.0111	0.0101	0.0107
5/14/2019					0.00913 (J)	0.0109	0.00922 (J)	0.00949 (J)
10/8/2019					0.0109	0.0151	0.0154	
10/10/2019								0.0116
10/14/2019	0.0215							
10/16/2019			0.0163		0.0106	0.0146	0.0128	0.0125
2/3/2020					0.00995 (J)	0.0122	0.0086 (J)	0.0103
2/4/2020	0.0209		0.0148					
2/5/2020		0.096						
8/3/2020					0.0107	0.0147	0.0166	
8/4/2020			0.0153	0.0155				
8/5/2020	0.0216	0.125						0.0125
2/22/2021					0.0107	0.0132	0.00981	0.0111
3/1/2021	0.0194	0.15		0.012				
3/2/2021			0.0149					
7/12/2021					0.00991	0.013	0.00857	0.0108
7/13/2021			0.0141	0.013				
7/14/2021	0.0232	0.148						
1/25/2022					0.0098	0.0122	0.00821	0.00908
1/26/2022		0.137	0.0146	0.012				
1/27/2022	0.0238							

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		0.00576	
10/3/2016						<0.00102		0.00469	
10/26/2016						0.000922 (J)		0.00459	
11/21/2016						0.00133 (J)		0.00502	
1/17/2017						0.0017 (J)		0.00488	
3/20/2017						0.00191 (J)			
3/21/2017								0.00521	
4/17/2017						0.00655		0.0058	
5/30/2017						0.00204 (J)		0.00517	
2/13/2018						0.00387		0.00544	
6/11/2018						0.00244 (J)		0.00463	
10/17/2018						0.00345		0.00369	
3/4/2019	<0.00102								
3/5/2019							<0.00102		0.00155 (J)
4/10/2019						0.00257 (J)		0.00469	
10/14/2019						0.00162 (J)	<0.00102	0.00403	0.00382
10/16/2019	<0.00102								
11/26/2019		0.0084							
2/3/2020						0.00141 (J)	<0.00102		0.00362
2/4/2020	<0.00102	0.00709		<0.00102				0.00415	
8/4/2020	<0.00102			<0.00102		0.00174 (J)	<0.00102		
8/5/2020		0.00747	<0.00102		0.00879			0.00385	0.00416
3/1/2021						0.00157			
3/2/2021	<0.00102	0.00703		<0.00102					
3/3/2021			<0.00102		0.00818		<0.00102	0.00406	0.0032
7/13/2021					0.00883				
7/14/2021	<0.00102	0.00755	<0.00102	<0.00102		0.00175		0.00577	0.00381
7/15/2021							<0.00102		
1/25/2022		0.00729							
1/26/2022	<0.00102			<0.00102		0.00179	<0.00102		
1/27/2022			<0.00102		0.00718			0.00768	0.00431

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	0.00122 (J)	<0.00102
4/26/2016					<0.00102			
6/20/2016					<0.00102	<0.00102		<0.00102
6/22/2016							0.00144 (J)	
8/8/2016					<0.00102	<0.00102		
8/9/2016							0.00331	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	0.00308	<0.00102
10/3/2016	<0.00102				<0.00102	<0.00102		<0.00102
10/4/2016							0.00129 (J)	
10/26/2016	<0.00102				<0.00102	<0.00102	0.0071	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	0.00689	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							0.0169 (o)	<0.00102
3/20/2017	<0.00102							
3/22/2017					<0.00102	<0.00102	0.00686	<0.00102
4/18/2017	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/30/2017	<0.00102				<0.00102			
5/31/2017						<0.00102	0.00547	
2/13/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/22/2018					<0.00102	<0.00102		
5/23/2018								<0.00102
5/24/2018							0.00164 (J)	
6/12/2018	<0.00102				<0.00102	<0.00102	0.00306	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	0.0121	<0.00102
11/19/2018					<0.00102	<0.00102	0.0185 (o)	<0.00102
3/5/2019			<0.00102					
4/10/2019	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/14/2019					<0.00102	<0.00102	<0.00102	<0.00102
10/8/2019					<0.00102	<0.00102	0.0084	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			0.000985 (J)		<0.00102	<0.00102	0.0103	<0.00102
2/3/2020					<0.00102	<0.00102	<0.00102	<0.00102
2/4/2020	<0.00102		0.000929 (J)					
2/5/2020		<0.00102						
8/3/2020					<0.00102	<0.00102	0.00405	
8/4/2020			0.000882 (J)	<0.00102				
8/5/2020	<0.00102	<0.00102						<0.00102
2/22/2021					<0.00102	<0.00102	<0.00102	<0.00102
3/1/2021	<0.00102	<0.00102		<0.00102				
3/2/2021			0.000724 (J)					
7/12/2021					<0.00102	<0.00102	<0.00102	<0.00102
7/13/2021			0.00073 (J)	<0.00102				
7/14/2021	<0.00102	<0.00102						
1/25/2022					<0.00102	<0.00102	<0.00102	<0.00102
1/26/2022		<0.00102	0.00063 (J)	<0.00102				
1/27/2022	<0.00102							

Time Series

Constituent: Boron (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.799		4.88	
10/3/2016						0.889		4.75	
10/26/2016						1.23		4.96	
11/21/2016						1.72		4.82	
1/17/2017						2.63		3.97	
3/20/2017						3.11			
3/21/2017								3.39	
4/17/2017						4.51		3.46	
5/30/2017						2.9		3.79	
8/24/2017						2.83		4.19	
6/11/2018						3.09		3.96	
10/17/2018						2.59		3.98	
3/4/2019	0.0235 (J)								
3/5/2019							0.895		7.15
4/10/2019						3.35		3.74	
10/14/2019						2.48	2.38	3.37	5.64
10/16/2019	0.0352 (J)								
11/26/2019		0.0798 (J)							
2/3/2020						2.13	3.06		5.25
2/4/2020	<0.1015	0.0748 (J)		0.202				2.74	
8/4/2020	<0.1015			0.263		1.82	2.8		
8/5/2020		0.0748 (J)	1.55		0.158			2.51	4.41
3/1/2021						2.55			
3/2/2021	0.0305 (J)	0.0875 (J)		0.206					
3/3/2021			1.54		0.203		2.99	2.42	4.09
7/13/2021					0.139				
7/14/2021	<0.1015	0.0742 (J)	1.55	0.229		1.47		4.78	3.68
7/15/2021							3.04		
1/25/2022		0.0645 (J)							
1/26/2022	<0.1015			0.206		2.5	2.81		
1/27/2022			1.52		0.148			6.1	3.47

Time Series

Constituent: Boron (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0241 (J)	0.028 (J)	0.0414 (J)
4/26/2016					0.0231 (J)			
6/20/2016					0.0227 (J)	0.0284 (J)		0.0434 (J)
6/22/2016							0.0433 (J)	
8/8/2016					0.0278 (J)	0.034 (J)		
8/9/2016							0.0429 (J)	0.0453 (J)
8/24/2016	0.0898 (J)				0.0247 (J)	0.0316 (J)	0.0431 (J)	0.0451 (J)
10/3/2016	0.0821 (J)				0.0307 (J)	0.0367 (J)		0.0511 (J)
10/4/2016							0.04 (J)	
10/26/2016	0.0889 (J)				0.0241 (J)	0.0331 (J)	0.0375 (J)	0.0507 (J)
11/21/2016	0.0788 (J)				0.0202 (J)	0.035 (J)	0.0406 (J)	0.0458 (J)
1/17/2017	0.0607 (J)				0.0201 (J)	0.0259 (J)		
1/18/2017							0.0548 (J)	0.0445 (J)
3/20/2017	0.114							
3/22/2017					0.0224 (J)	0.0243 (J)	0.0344 (J)	0.0432 (J)
4/18/2017	0.108				<0.1015	0.0206 (J)	<0.1015	0.0409 (J)
5/30/2017	0.105				<0.1015			
5/31/2017						0.0234 (J)	0.0454 (J)	
8/23/2017					0.0253 (J)	0.0267 (J)	0.0425 (J)	0.042 (J)
8/24/2017	0.12							
5/22/2018					0.0224 (J)	0.0251 (J)		
5/23/2018								0.0433 (J)
5/24/2018							0.0339 (J)	
6/12/2018	0.181				0.0214 (J)	0.0275 (J)	0.0371 (J)	0.0478 (J)
10/17/2018	0.616				0.0216 (J)	0.0321 (J)	0.0596 (J)	0.0468 (J)
11/19/2018					0.0237 (J)	0.0324 (J)	0.0514 (J)	0.0526 (J)
3/5/2019			12.8					
4/10/2019	0.944				0.0304 (J)	<0.1015	<0.1015	0.0438 (J)
5/14/2019					<0.1015	<0.1015	<0.1015	<0.203 (o)
10/8/2019					<0.1015	0.0371 (J)	0.0537 (J)	
10/10/2019								0.0487 (J)
10/14/2019	2.11							
10/16/2019			10.7		0.0385 (J)	0.0419 (J)	0.05 (J)	0.0505 (J)
2/3/2020					<0.1015	<0.1015	<0.1015	0.0433 (J)
2/4/2020	1.47		9.63					
2/5/2020		0.136						
8/3/2020					<0.1015	0.0317 (J)	0.0424 (J)	
8/4/2020			8.53	0.149				
8/5/2020	2.16	0.131						0.0459 (J)
2/22/2021					0.0307 (J)	<0.1015	<0.1015	0.0397 (J)
3/1/2021	1.85	0.145		0.147				
3/2/2021			6.68					
7/12/2021					<0.1015	<0.1015	<0.1015	0.0411 (J)
7/13/2021			5.84	0.125				
7/14/2021	2.07	0.147						
1/25/2022					<0.1015	<0.1015	<0.1015	0.0408 (J)
1/26/2022		0.153	5.87	0.11				
1/27/2022	2.76							

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		0.00148	
10/3/2016						<0.0002		0.00147	
10/26/2016						<0.0002		0.00157	
11/21/2016						<0.0002		0.00154	
1/17/2017						<0.0002		0.00131	
3/20/2017						<0.0002			
3/21/2017								0.00134	
4/17/2017						<0.0002		0.00122	
5/30/2017						<0.0002		0.00167	
2/13/2018						<0.0002		0.00145	
6/11/2018						<0.0002		0.00171	
10/17/2018						<0.0002		0.00188	
3/4/2019	<0.0002								
3/5/2019							<0.0002		<0.0002
4/10/2019						<0.0002		0.00176	
10/14/2019						<0.0002	<0.0002	0.0015	<0.0002
10/16/2019	<0.0002								
11/26/2019		0.00351							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	0.00301		<0.0002				0.00143	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		0.00393	<0.0002		0.0018			0.00157	<0.0002
3/1/2021						<0.0002			
3/2/2021	0.000366	0.00319		<0.0002					
3/3/2021			<0.0002		0.0016		<0.0002	0.00162	<0.0002
7/13/2021					0.00157				
7/14/2021	0.00028	0.00301	<0.0002	<0.0002		<0.0002		0.00246	<0.0002
7/15/2021							<0.0002		
1/25/2022		0.00333							
1/26/2022	0.00029			7E-05 (J)		<0.0002	<0.0002		
1/27/2022			<0.0002		0.00137			0.00336	<0.0002

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	0.0121 (o)	<0.0002
4/26/2016					0.00196			
6/20/2016					0.0021	<0.0002		<0.0002
6/22/2016							0.00163	
8/8/2016					0.00206	<0.0002		
8/9/2016							0.00122	<0.0002
8/24/2016	<0.0002				0.00182	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				0.00188	<0.0002		<0.0002
10/4/2016							0.000689 (J)	
10/26/2016	<0.0002				0.00175	<0.0002	0.00136	<0.0002
11/21/2016	<0.0002				0.00197	<0.0002	0.00171	<0.0002
1/17/2017	<0.0002				0.002	0.000311 (J)		
1/18/2017							0.003	<0.0002
3/20/2017	<0.0002							
3/22/2017					0.0019	<0.0002	0.00473	<0.0002
4/18/2017	<0.0002				0.00159	<0.0002	0.00117	<0.0002
5/30/2017	<0.0002				0.00214			
5/31/2017						0.000212 (J)	0.00296	
2/13/2018	<0.0002				0.0018	<0.0002	0.00232	<0.0002
5/22/2018					0.00201	<0.0002		
5/23/2018								<0.0002
5/24/2018							0.00459	
6/12/2018	<0.0002				0.00217	<0.0002	0.00351	<0.0002
10/17/2018	<0.0002				0.00228	<0.0002	0.00393	<0.0002
11/19/2018					0.00156	<0.0002	0.00309	<0.0002
3/5/2019			0.000336 (J)					
4/10/2019	<0.0002				0.00224	<0.0002	0.00337	<0.0002
5/14/2019					0.00238	<0.0002	0.0013	<0.0002
10/8/2019					0.00218	<0.0002	0.00598	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			0.000362 (J)		0.00225	<0.0002	0.00448	<0.0002
2/3/2020					0.00182	<0.0002	0.000988 (J)	<0.0002
2/4/2020	<0.0002		0.000349 (J)					
2/5/2020		<0.0002						
8/3/2020					0.00237	<0.0002	0.00652	
8/4/2020			0.000308 (J)	<0.0002				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					0.00184	8.96E-05 (J)	0.00536	8.96E-05 (J)
3/1/2021	<0.0002	<0.0002		<0.0002				
3/2/2021			0.000338					
7/12/2021					0.00193	8E-05 (J)	0.00094	8E-05 (J)
7/13/2021			0.00028	<0.0002				
7/14/2021	<0.0002	<0.0002						
1/25/2022					0.00196	8E-05 (J)	0.00178	<0.0002
1/26/2022		<0.0002	0.00024	<0.0002				
1/27/2022	<0.0002							

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						539		102	
10/3/2016						519.7		98.4	
10/26/2016						916		88.7	
11/21/2016						552		104	
1/17/2017						572		102	
3/20/2017						817			
3/21/2017								94.7	
4/17/2017						476		97.9	
5/30/2017						515		93.9	
8/24/2017						598		105	
6/11/2018						558		105	
10/17/2018						533		117	
3/4/2019	177								
3/5/2019							329		249
4/10/2019						659		129	
10/14/2019						552	368	93.5	173
10/16/2019	143								
11/26/2019		144							
2/3/2020						589	504		184
2/4/2020	163	158		171				116	
8/4/2020	139			192		545	443		
8/5/2020		126	350		141			94.7	167
3/1/2021						514			
3/2/2021	139	124		164					
3/3/2021			353		137		466	100	161
7/13/2021					135				
7/14/2021	133	124	338	179		533		130	162
7/15/2021							453		
1/25/2022		124							
1/26/2022	143			158		517	448		
1/27/2022			347		124			181	172

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						123	224	261
4/26/2016					147			
6/20/2016					152	168		295
6/22/2016							266	
8/8/2016					150	180		
8/9/2016							260	318
8/24/2016	263				142	180	274	319
10/3/2016	253				139	184		293
10/4/2016							243	
10/26/2016	235				133	171	254	311
11/21/2016	246				144	179	263	320
1/17/2017	231				131	188		
1/18/2017							431	417
3/20/2017	298							
3/22/2017					141	155	318	292
4/18/2017	317				149	156	296	302
5/30/2017	316				140			
5/31/2017						151	306	
8/23/2017					152	155	298	297
8/24/2017	391							
5/22/2018					166	172		
5/23/2018								296
5/24/2018							297	
6/12/2018	442				203	179	318	355
10/17/2018	514				171	200	392	342
11/19/2018					154	221	387	289
3/5/2019			578					
4/10/2019	533				243	200	348	356
5/14/2019					167	168	254	254
10/8/2019					157	190	371	
10/10/2019								302
10/14/2019	524							
10/16/2019			363		157	194	346	356
2/3/2020					172	172	276	265
2/4/2020	461		413					
2/5/2020		37.3						
8/3/2020					148	172	285	
8/4/2020			346	434				
8/5/2020	497	31.9						281
2/22/2021					151	178	312	271
3/1/2021	386	26.2		428				
3/2/2021			333					
7/12/2021					149	159	252	242
7/13/2021			312	408				
7/14/2021	444	29						
1/25/2022					150	179	285	259
1/26/2022		31.5	300	417				
1/27/2022	491							

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						204		112	
10/3/2016						220		115	
10/26/2016						249		115	
11/21/2016						256		117	
1/17/2017						301		99.3	
3/20/2017						320			
3/21/2017								79	
4/17/2017						340		85	
5/30/2017						310		99	
8/24/2017						290		110	
6/11/2018						260		81	
10/17/2018						270		85	
3/4/2019	3.81								
3/5/2019							194		191
4/10/2019						249		74.3	
10/14/2019						228	298	59.1	122
10/16/2019	4.45								
11/26/2019		2.43							
2/3/2020						267	338		101
2/4/2020	4.27	2.34		12.9				43.2	
8/4/2020	4.51			12.7		222	305		
8/5/2020		2	159		3.28			41	80.9
3/1/2021						250			
3/2/2021	4.63	2.28		10.9					
3/3/2021			152		4.8		307	40.3	70.8
7/13/2021					2.41				
7/14/2021	4.7	1.69	189	11.5		207		102	68.4
7/15/2021							294		
1/25/2022		1.83							
1/26/2022	5.4			10.2		255	238		
1/27/2022			171		3.75			103	51.9

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						1.9	1.32	1.53
4/26/2016					1.94			
6/20/2016					2.09	3.43		1.85
6/22/2016							1.46	
8/8/2016					2.18	3.31		
8/9/2016							1.35	1.95
8/24/2016	4.03				2.22	3.23	1.47	2.07
10/3/2016	3.87				2.34	3.21		2.02
10/4/2016							1.59	
10/26/2016	4.08				2.34	3.35	1.27	2.07
11/21/2016	4.39				2.5	3.34	1.38	2.39
1/17/2017	7.22				2.68	3.58		
1/18/2017							1.34	1.9
3/20/2017	5.7							
3/22/2017					3.7	3.4	2	1.5 (J)
4/18/2017	4.7				2.4	2.6	2.2	1.6 (J)
5/30/2017	15				2.6			
5/31/2017						4.4	1.5 (J)	
8/23/2017					2.7	4.4	1.8 (J)	2.3
8/24/2017	93							
5/22/2018					2.3	3.2		
5/23/2018								2
5/24/2018							1.6 (J)	
6/12/2018	140				2.3	3.7	1.4 (J)	1.7 (J)
10/17/2018	180				1.7 (J)	4.6	<2	1.5 (J)
11/19/2018					1.7 (J)	3	<2	<2
3/5/2019			313					
4/10/2019	174				2.36	1.76	2.25	1.88
5/14/2019					2.28	2.98	2.28	1.82
10/8/2019					2.31	4.26	1.36	
10/10/2019								1.93
10/14/2019	207							
10/16/2019			145		2.42	4.04	1.4	1.92
2/3/2020					2.07	2.48	2.12	1.72
2/4/2020	94.1		139					
2/5/2020		9.05						
8/3/2020					2.05	4.03	1.17	
8/4/2020			109	58.6				
8/5/2020	146	13.9						1.57
2/22/2021					2.16	1.72	2.22	1.52
3/1/2021	92.5	19.4		58.7				
3/2/2021			84.7					
7/12/2021					2.19	2.36	2.13	1.56
7/13/2021			78.6	62				
7/14/2021	129	16.7						
1/25/2022					2.09	2.14	2.12	1.54
1/26/2022		18.9	59.3	57.2				
1/27/2022	122							

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		<0.00102	
10/3/2016						<0.00102		<0.00102	
10/26/2016						<0.00102		<0.00102	
11/21/2016						<0.00102		<0.00102	
1/17/2017						<0.00102		<0.00102	
3/20/2017						<0.00102			
3/21/2017								<0.00102	
4/17/2017						<0.00102		<0.00102	
5/30/2017						<0.00102		<0.00102	
2/13/2018						<0.00102		<0.00102	
6/11/2018						<0.00102		<0.00102	
10/17/2018						<0.00102		<0.00102	
3/4/2019	<0.00102								
3/5/2019							<0.00102		<0.00102
4/10/2019						<0.00102		<0.00102	
10/14/2019						<0.00102	<0.00102	<0.00102	<0.00102
10/16/2019	<0.00102								
11/26/2019		<0.00102							
2/3/2020						<0.00102	<0.00102		<0.00102
2/4/2020	<0.00102	<0.00102		<0.00102				<0.00102	
8/4/2020	<0.00102			<0.00102		<0.00102	<0.00102		
8/5/2020		<0.00102	<0.00102		<0.00102			<0.00102	<0.00102
3/1/2021						0.000386 (J)			
3/2/2021	0.000295 (J)	0.000242 (J)		0.000285 (J)					
3/3/2021			<0.00102		<0.00102		<0.00102	0.000567 (J)	<0.00102
7/13/2021					0.0005 (J)				
7/14/2021	0.00034 (J)	0.00059 (J)	0.00025 (J)	0.00032 (J)		0.00039 (J)		0.0007 (J)	0.00027 (J)
7/15/2021							0.00027 (J)		
1/25/2022		0.00033 (J)							
1/26/2022	0.00052 (J)			0.00023 (J)		0.00048 (J)	0.0005 (J)		
1/27/2022			0.00025 (J)		0.0005 (J)			0.00107	0.00029 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	0.00373 (J)	<0.00102
4/26/2016					<0.00102			
6/20/2016					<0.00102	<0.00102		<0.00102
6/22/2016							0.00606 (J)	
8/8/2016					<0.00102	<0.00102		
8/9/2016							<0.00102	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/3/2016	<0.00102				<0.00102	<0.00102		<0.00102
10/4/2016							<0.00102	
10/26/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							<0.00102	<0.00102
3/20/2017	<0.00102							
3/22/2017					<0.00102	<0.00102	0.00945 (J)	<0.00102
4/18/2017	<0.00102				<0.00102	<0.00102	0.0105	<0.00102
5/30/2017	<0.00102				<0.00102			
5/31/2017						<0.00102	<0.00102	
2/13/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/22/2018					<0.00102	<0.00102		
5/23/2018								<0.00102
5/24/2018							<0.00102	
6/12/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/19/2018					<0.00102	<0.00102	<0.00102	<0.00102
3/5/2019			<0.00102					
4/10/2019	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/14/2019					<0.00102	<0.00102	<0.00102	<0.00102
10/8/2019					<0.00102	<0.00102	<0.00102	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			<0.00102		<0.00102	<0.00102	<0.00102	<0.00102
2/3/2020					<0.00102	<0.00102	<0.00102	<0.00102
2/4/2020	<0.00102		<0.00102					
2/5/2020		<0.00102						
8/3/2020					<0.00102	<0.00102	<0.00102	
8/4/2020			<0.00102	<0.00102				
8/5/2020	<0.00102	<0.00102						<0.00102
2/22/2021					0.000382 (J)	<0.00102	0.00035 (J)	<0.00102
3/1/2021	0.000423 (J)	<0.00102		<0.00102				
3/2/2021			0.000218 (J)					
7/12/2021					0.00049 (J)	0.00025 (J)	0.00031 (J)	0.0003 (J)
7/13/2021			0.00026 (J)	0.0003 (J)				
7/14/2021	0.0003 (J)	<0.00102						
1/25/2022					0.00043 (J)	0.00022 (J)	0.00051 (J)	0.00021 (J)
1/26/2022		0.00023 (J)	0.00024 (J)	<0.00102				
1/27/2022	0.00046 (J)							

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.0303		0.151	
10/3/2016						0.041		0.143	
10/26/2016						0.0505		0.154	
11/21/2016						0.0617		0.155	
1/17/2017						0.0793		0.16	
3/20/2017						0.0726			
3/21/2017								0.158	
4/17/2017						0.294 (o)		0.159	
5/30/2017						0.0832		0.159	
2/13/2018						0.124		0.19	
6/11/2018						0.138		0.166	
10/17/2018						0.138		0.154	
3/4/2019	0.0066								
3/5/2019							0.0059		0.0836
4/10/2019						0.151		0.241	
10/14/2019						0.102	0.00845	0.213	0.12
10/16/2019	0.00598								
11/26/2019		0.435							
2/3/2020						0.0843	0.0135		0.108
2/4/2020	0.00582	0.351		0.0442				0.217	
8/4/2020	0.0061			0.111		0.0862	0.0133		
8/5/2020		0.436	<0.0002		0.237			0.235	0.141
3/1/2021						0.119			
3/2/2021	0.00512	0.307		0.143					
3/3/2021			0.00028		0.202		0.0134	0.24	0.118
7/13/2021					0.193				
7/14/2021	0.00475	0.299	0.00018 (J)	0.116		0.0555		0.296	0.12
7/15/2021							0.0121		
1/25/2022		0.315							
1/26/2022	0.00479			0.228		0.0794	0.012		
1/27/2022			0.00022		0.178			0.406	0.124

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0487	0.232	<0.0002
4/26/2016					0.0343			
6/20/2016					0.0413	0.0767		<0.0002
6/22/2016							0.332	
8/8/2016					0.0513	0.103		
8/9/2016							0.311	<0.0002
8/24/2016	0.0201				0.0471	0.093	0.271	<0.0002
10/3/2016	0.0167				0.0525	0.0964		<0.0002
10/4/2016							0.148	
10/26/2016	0.0253				0.0527	0.0904	0.236	<0.0002
11/21/2016	0.0233				0.0569	0.0857	0.241	<0.0002
1/17/2017	0.0708				0.0768	0.0745		
1/18/2017							0.347	<0.0002
3/20/2017	0.00277 (J)							
3/22/2017					0.0535	0.0328	0.271	<0.0002
4/18/2017	<0.0002				0.0442	0.0242	0.00324 (J)	<0.0002
5/30/2017	<0.0002				0.0465			
5/31/2017						0.0441	0.225	
2/13/2018	0.00492 (J)				0.062	0.0179	0.00661 (J)	<0.0002
5/22/2018					0.0443	0.028		
5/23/2018								<0.0002
5/24/2018							0.158	
6/12/2018	<0.0002				0.0512	0.0366	0.291	<0.0002
10/17/2018	<0.0002				0.0751	0.0745	0.49	<0.0002
11/19/2018					0.0825	0.0225	0.386	<0.0002
3/5/2019			0.14					
4/10/2019	<0.0002				0.0445	0.0152	0.0144	<0.0002
5/14/2019					0.0485	0.0222	0.00536	<0.0002
10/8/2019					0.0778	0.0674	1.07 (o)	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			0.168		0.08	0.073	0.848 (o)	<0.0002
2/3/2020					0.0495	0.0193	0.0114	<0.0002
2/4/2020	<0.0002		0.159					
2/5/2020		<0.0002						
8/3/2020					0.0722	0.0589	0.64	
8/4/2020			0.178	0.00412 (J)				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					0.0657	0.0161	0.0515	<0.0002
3/1/2021	0.00546	<0.0002		0.000992				
3/2/2021			0.163					
7/12/2021					0.0556	0.0155	0.00567	<0.0002
7/13/2021			0.141	0.00077				
7/14/2021	0.00026	<0.0002						
1/25/2022					0.0654	0.0166	0.0051	<0.0002
1/26/2022		<0.0002	0.141	0.00054				
1/27/2022	0.00067							

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.389 (U)		0.741	
10/3/2016						0.683		0.648	
10/26/2016						0.242 (U)		0.632	
11/21/2016						0.764		1.57	
1/17/2017						0.191 (U)		0.493	
3/20/2017						-0.0158 (U)			
3/21/2017								0.604 (U)	
4/17/2017						0.307 (U)		0.252 (U)	
5/30/2017						0.724		0.925	
2/13/2018						0.633		0.382	
6/11/2018						0.773		0.796	
10/17/2018						0.668		0.922	
3/4/2019	0.135 (U)								
3/5/2019							0.932		0.364 (U)
4/10/2019						0.265 (U)		0.622	
10/14/2019						0.297 (U)	0.184 (U)	0.317 (U)	0.369 (U)
10/16/2019	0.189 (U)								
2/3/2020						0.28 (U)	0.408 (U)		0.758
2/4/2020	0.319 (U)	0.939		0.624				0.324 (U)	
8/4/2020	0.0315 (U)			-0.402 (U)		0.45 (U)	-0.00668 (U)		
8/5/2020		-0.306 (U)	-0.284 (U)		0.758 (U)			0.389 (U)	0.533 (U)
3/1/2021						0.57 (U)			
3/2/2021	0.308 (U)	2.18		0.686 (U)					
3/3/2021			0.388 (U)		0.185 (U)		1.11 (U)	0.836 (U)	0.325 (U)
7/13/2021					1.06 (U)				
7/14/2021	0.398 (U)	1.42	0.657 (U)	0.826 (U)		0.668 (U)		1.58	0.917 (U)
7/15/2021							0.362 (U)		
1/25/2022		1.22 (U)							
1/26/2022	0.506 (U)			0.354 (U)		0.335 (U)	0.546 (U)		
1/27/2022			0.361 (U)		0.247 (U)			0.791 (U)	0.624 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
8/24/2016	0.558 (U)				0.566 (U)	0.65	0.131 (U)	0.266 (U)
10/3/2016	0.565				0.537 (U)	0.845		0.59 (U)
10/4/2016							0.514 (U)	
10/26/2016	0.555 (U)				0.636	0.994	0.755	0.164 (U)
11/21/2016	0.987				0.807	0.537 (U)	0.7	0.296 (U)
1/17/2017	0.476 (U)				0.308 (U)	-0.0159 (U)		
1/18/2017							0.606	0.0267 (U)
3/20/2017	0.633 (U)							
3/22/2017					0.344 (U)	0.279 (U)	0.927	0.132 (U)
4/18/2017	0.248 (U)				0.934	0.32 (U)	0.334 (U)	-0.0439 (U)
5/30/2017	0.412 (U)				0.149 (U)			
5/31/2017						0.178 (U)	0.8	0.3 (U)
2/13/2018	1.08				0.774	0.804	0.649	0.69
5/22/2018					-0.091 (U)	0.0077 (U)		
5/23/2018								0.186 (U)
5/24/2018							0.448 (U)	
6/12/2018	0.446 (U)				1.18	-0.315 (U)	0.234 (U)	0.153 (U)
10/17/2018	1.05				0.553 (U)	0.574 (U)	0.852	0.313 (U)
11/19/2018					0.862	0.654	0.521	0.794
3/5/2019			0.852					
4/10/2019	0.128 (U)				0.342 (U)	0.329 (U)	0.198 (U)	0.515
5/14/2019								0.352 (U)
10/8/2019					1.47	0.493 (U)	0.833 (U)	
10/10/2019								1.02 (U)
10/14/2019	0.225 (U)							
10/16/2019			1.29		0.204 (U)	0.046 (U)	0.0279 (U)	0.356 (U)
2/3/2020					0.521 (U)	-0.0245 (U)	0.0246 (U)	0.254 (U)
2/4/2020	0.336 (U)		0.441 (U)					
2/5/2020		0.576						
8/3/2020					-0.127 (U)	0.888 (U)	0.765 (U)	
8/4/2020			-0.385 (U)	0.837 (U)				
8/5/2020	-0.115 (U)	1.85						0.565 (U)
2/22/2021					0.677 (U)	0.434 (U)	0.472 (U)	0 (U)
3/1/2021	0.902 (U)	1.49		0.686 (U)				
3/2/2021			0.87 (U)					
7/12/2021					0.476 (U)	0.155 (U)	0.114 (U)	0.301 (U)
7/13/2021			0.877 (U)	0.194 (U)				
7/14/2021	1.23 (U)	1.85						
1/25/2022					1.01 (U)	0.663 (U)	0.418 (U)	0.884 (U)
1/26/2022		0.155 (U)	1.06	0.53 (U)				
1/27/2022	0.28 (U)							

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.264 (J)		0.793	
10/3/2016						0.276 (J)		0.769	
10/26/2016						0.182 (J)		0.578	
11/21/2016						0.238 (J)		0.562	
1/17/2017						0.34		0.571	
3/20/2017						0.39			
3/21/2017								0.54	
4/17/2017						0.57		0.54	
5/30/2017						0.38		0.49	
8/24/2017						0.54		0.7	
2/13/2018						0.57		0.63	
6/11/2018						0.63		0.39	
10/17/2018						0.78		0.44	
3/4/2019	0.101								
3/5/2019							0.249		0.477
4/10/2019						0.738		<0.1	
10/14/2019						0.619	0.37	<0.1	0.449
10/16/2019	0.0875 (J)								
11/26/2019		<0.1							
2/3/2020						0.427	0.438		0.555
2/4/2020	0.0743 (J)	<0.1		0.115				<0.1	
8/4/2020	0.109			0.113		0.389	0.349		
8/5/2020		<0.1	0.217		0.082 (J)			<0.1	0.363
3/1/2021						0.449			
3/2/2021	0.0758 (J)	<0.1		0.167					
3/3/2021			0.243		<0.1		0.458	<0.1	0.262
7/13/2021					<0.1				
7/14/2021	0.0848 (J)	<0.1	0.335	0.196		0.556		<0.1	0.276
7/15/2021							0.493		
1/25/2022		<0.1							
1/26/2022	0.0809 (J)			0.208		0.447	0.516		
1/27/2022			0.329		<0.1			<0.1	0.373

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.149 (J)	0.243 (J)	0.372
4/26/2016					0.146 (J)			
6/20/2016					0.148 (J)	0.148 (J)		0.361
6/22/2016							0.269 (J)	
8/8/2016					0.137 (J)	0.134 (J)		
8/9/2016							0.363	0.326
8/24/2016	0.165 (J)				0.133 (J)	0.129 (J)	0.346	0.329
10/3/2016	0.114 (J)				0.103 (J)	0.086 (J)		0.287 (J)
10/4/2016							0.266 (J)	
10/26/2016	0.056 (J)				0.05 (J)	0.027 (J)	0.266 (J)	0.194 (J)
11/21/2016	0.059 (J)				0.047 (J)	0.027 (J)	0.244 (J)	0.192 (J)
1/17/2017	0.07 (J)				0.09 (J)	0.066 (J)		
1/18/2017							0.385	0.223 (J)
3/20/2017	0.18							
3/22/2017					0.12	0.13	0.41	0.32
4/18/2017	0.17				0.12	0.16	0.29	0.32
5/30/2017	0.16				0.13			
5/31/2017						0.13	0.37	
8/23/2017					0.16	0.16	0.55	0.38
8/24/2017	0.18							
2/13/2018	0.15				0.14	0.22	0.27	0.38
5/22/2018					0.16	0.17		
5/23/2018								0.38
5/24/2018							0.6	
6/12/2018	0.15				0.16	0.16	0.53	0.39
10/17/2018	0.16				0.18	0.16	0.63	0.39
11/19/2018					0.15	0.18	0.31	0.36
3/5/2019			0.239					
4/10/2019	0.156				0.102	0.262	0.273	0.384
5/14/2019					0.119	0.17	0.281	0.335
10/8/2019					0.0924 (J)	0.164	0.225	
10/10/2019								0.304
10/14/2019	0.118							
10/16/2019			0.101		0.0756 (J)	0.114	0.106	0.302
2/3/2020					0.0982 (J)	0.182	0.256	0.37
2/4/2020	0.132		0.205					
2/5/2020		0.162						
8/3/2020					<0.1	0.122	0.0766 (J)	
8/4/2020			0.127	0.135				
8/5/2020	0.119	0.256						0.359
2/22/2021					0.082 (J)	0.209	0.246	0.357
3/1/2021	0.106	0.346		0.12				
3/2/2021			0.094 (J)					
7/12/2021					0.125	0.196	0.287	0.35
7/13/2021			0.182	0.211				
7/14/2021	0.221	0.339						
1/25/2022					0.101	0.204	0.325	0.364
1/26/2022		0.306	0.117	0.155				
1/27/2022	0.179							

Time Series

Constituent: Lead (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		<0.0002	
10/3/2016						<0.0002		<0.0002	
10/26/2016						<0.0002		<0.0002	
11/21/2016						<0.0002		<0.0002	
1/17/2017						<0.0002		<0.0002	
3/20/2017						<0.0002			
3/21/2017								<0.0002	
4/17/2017						<0.0002		<0.0002	
5/30/2017						<0.0002		<0.0002	
2/13/2018						<0.0002		<0.0002	
6/11/2018						<0.0002		<0.0002	
10/17/2018						<0.0002		<0.0002	
3/4/2019	<0.0002								
3/5/2019							<0.0002		<0.0002
4/10/2019						<0.0002		<0.0002	
10/14/2019						<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019	<0.0002								
11/26/2019		0.00271 (J)							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	0.00334 (J)		<0.0002				<0.0002	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		0.00329 (J)	<0.0002		0.00122 (J)			<0.0002	<0.0002
3/1/2021						0.000157 (J)			
3/2/2021	0.000145 (J)	0.00478		<0.0002					
3/3/2021			<0.0002		0.000876		<0.0002	0.000609	<0.0002
7/13/2021					0.00096				
7/14/2021	0.00014 (J)	0.00557	<0.0002	<0.0002		0.00018 (J)		0.00079	<0.0002
7/15/2021							<0.0002		
1/25/2022		0.0052							
1/26/2022	0.00023			<0.0002		0.00014 (J)	<0.0002		
1/27/2022			<0.0002		0.00087			0.00103	7E-05 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	<0.0002	<0.0002
4/26/2016					<0.0002			
6/20/2016					<0.0002	<0.0002		<0.0002
6/22/2016							<0.0002	
8/8/2016					<0.0002	<0.0002		
8/9/2016							<0.0002	<0.0002
8/24/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				<0.0002	<0.0002		<0.0002
10/4/2016							<0.0002	
10/26/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/21/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002				<0.0002	<0.0002		
1/18/2017							<0.0002	<0.0002
3/20/2017	<0.0002							
3/22/2017					<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/30/2017	<0.0002				<0.0002			
5/31/2017						<0.0002	<0.0002	
2/13/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/22/2018					<0.0002	<0.0002		
5/23/2018								<0.0002
5/24/2018							<0.0002	
6/12/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/17/2018	<0.0002				<0.0002	<0.0002	0.00102 (J)	<0.0002
11/19/2018					<0.0002	<0.0002	0.00692 (o)	<0.0002
3/5/2019			<0.0002					
4/10/2019	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019					<0.0002	<0.0002	<0.0002	<0.0002
10/8/2019					<0.0002	<0.0002	<0.0002	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			<0.0002		<0.0002	<0.0002	0.00108 (J)	<0.0002
2/3/2020					<0.0002	<0.0002	<0.0002	<0.0002
2/4/2020	<0.0002		<0.0002					
2/5/2020		<0.0002						
8/3/2020					<0.0002	<0.0002	0.002 (J)	
8/4/2020			<0.0002	<0.0002				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					<0.0002	<0.0002	8.8E-05 (J)	<0.0002
3/1/2021	0.000145 (J)	<0.0002		<0.0002				
3/2/2021			0.000206					
7/12/2021					<0.0002	<0.0002	8E-05 (J)	<0.0002
7/13/2021			0.00016 (J)	<0.0002				
7/14/2021	<0.0002	<0.0002						
1/25/2022					<0.0002	<0.0002	<0.0002	<0.0002
1/26/2022		<0.0002	0.00013 (J)	<0.0002				
1/27/2022	0.00015 (J)							

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.362		0.291	
10/3/2016						0.371		0.287	
10/26/2016						0.416		0.298	
11/21/2016						0.401		0.294	
1/17/2017						0.497		0.27	
3/20/2017						0.533			
3/21/2017								0.258	
4/17/2017						0.47		0.274	
5/30/2017						0.479		0.285	
2/13/2018						0.508		0.274	
6/11/2018						0.425		0.266	
10/17/2018						0.494		0.266	
3/4/2019	<0.02								
3/5/2019							0.309		0.369
4/10/2019						0.425		0.282	
10/14/2019						0.459	0.38	0.262	0.317
10/16/2019	<0.02								
11/26/2019		0.449							
2/3/2020						0.474	0.46		0.332
2/4/2020	<0.02	0.394		0.0506				0.29	
8/4/2020	<0.02			0.0534		0.468	0.395		
8/5/2020		0.441	0.334		0.512			0.273	0.322
3/1/2021						0.353			
3/2/2021	<0.02	0.456		0.0439					
3/3/2021			0.411		0.54		0.455	0.313	0.345
7/13/2021					0.514				
7/14/2021	<0.02	0.454	0.374	0.0524		0.485		0.487	0.337
7/15/2021							0.441		
1/25/2022		0.397							
1/26/2022	<0.02			0.0301		0.31	0.347		
1/27/2022			0.303		0.43			0.671	0.305

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0353 (J)	0.0964	0.0528
4/26/2016					0.0264 (J)			
6/20/2016					0.0246 (J)	0.0583		0.0554
6/22/2016							0.156	
8/8/2016					0.0229 (J)	0.0627		
8/9/2016							0.122	0.0452 (J)
8/24/2016	0.0683				0.0236 (J)	0.0651	0.138	0.0488 (J)
10/3/2016	0.0661				0.0229 (J)	0.0622		0.0476 (J)
10/4/2016							0.0966	
10/26/2016	0.0681				0.0227 (J)	0.0293 (J)	0.134	0.049 (J)
11/21/2016	0.0682				0.0236 (J)	0.0667	0.167	0.0477 (J)
1/17/2017	0.0516				0.0228 (J)	0.0636		
1/18/2017							0.237	0.045 (J)
3/20/2017	0.135							
3/22/2017					0.0238 (J)	0.0464 (J)	0.203	0.0493 (J)
4/18/2017	0.139				0.0242 (J)	0.0446 (J)	0.0764	0.0494 (J)
5/30/2017	0.141				0.0229 (J)			
5/31/2017						0.0496 (J)	0.218	
2/13/2018	0.163				0.0233 (J)	0.0615	0.0964	0.0446 (J)
5/22/2018					0.0263 (J)	0.0465 (J)		
5/23/2018								0.0513
5/24/2018							0.145	
6/12/2018	0.166				0.0251 (J)	0.0472 (J)	0.194	0.0511
10/17/2018	0.188				0.025 (J)	0.0633	0.384	0.0532
11/19/2018					0.0241	0.0584	0.323	0.0467
3/5/2019			0.169					
4/10/2019	0.195				0.0285	0.0574	0.0905	0.0504
5/14/2019					0.026 (J)	0.0445	0.0828	0.0485
10/8/2019					0.0268	0.0677	0.419	
10/10/2019								0.054
10/14/2019	0.209							
10/16/2019			0.184		0.0263	0.0661	0.337	0.052
2/3/2020					0.0292	0.0534	0.0825	0.0556
2/4/2020	0.188		0.203					
2/5/2020		0.327						
8/3/2020					0.0259	0.0611	0.27	
8/4/2020			0.166	0.364				
8/5/2020	0.206	0.275						0.0519
2/22/2021					0.0301	0.0625	0.126	0.0558
3/1/2021	0.149	0.292		0.424				
3/2/2021			0.178					
7/12/2021					0.0266	0.0495	0.0808	0.0533
7/13/2021			0.166	0.408				
7/14/2021	0.213	0.286						
1/25/2022					0.0239	0.051	0.077	0.0433
1/26/2022		0.233	0.115	0.312				
1/27/2022	0.185							

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0005		<0.0005	
10/3/2016						<0.0005		<0.0005	
10/26/2016						<0.0005		<0.0005	
11/21/2016						<0.0005		<0.0005	
1/17/2017						<0.0005		<0.0005	
3/20/2017						<0.0005			
3/21/2017								<0.0005	
4/17/2017						<0.0005		<0.0005	
5/30/2017						<0.0005		<0.0005	
2/13/2018						<0.0005		<0.0005	
6/11/2018						<0.0005		<0.0005	
10/17/2018						<0.0005		<0.0005	
3/4/2019	<0.0005								
3/5/2019							<0.0005		<0.0005
4/10/2019						<0.0005		<0.0005	
10/14/2019						<0.0005	<0.0005	<0.0005	<0.0005
10/16/2019	<0.0005								
11/26/2019		<0.0005							
2/3/2020						<0.0005	<0.0005		<0.0005
2/4/2020	<0.0005	<0.0005		<0.0005				<0.0005	
8/4/2020	<0.0005			<0.0005		<0.0005	<0.0005		
8/5/2020		<0.0005	<0.0005		<0.0005			<0.0005	<0.0005
3/1/2021						<0.0005			
3/2/2021	<0.0005	<0.0005		<0.0005					
3/3/2021			<0.0005		<0.0005		<0.0005	<0.0005	<0.0005
7/13/2021					<0.0005				
7/14/2021	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005		<0.0005	<0.0005
7/15/2021							<0.0005		
1/25/2022		<0.0005							
1/26/2022	<0.0005			<0.0005		<0.0005	<0.0005		
1/27/2022			<0.0005		<0.0005			<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0005	<0.0005	<0.0005
4/26/2016					<0.0005			
6/20/2016					<0.0005	<0.0005		<0.0005
6/22/2016							<0.0005	
8/8/2016					<0.0005	<0.0005		
8/9/2016							<0.0005	<0.0005
8/24/2016	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
10/3/2016	<0.0005				<0.0005	<0.0005		<0.0005
10/4/2016							<0.0005	
10/26/2016	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
11/21/2016	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
1/17/2017	<0.0005				<0.0005	<0.0005		
1/18/2017							<0.0005	<0.0005
3/20/2017	<0.0005							
3/22/2017					<0.0005	<0.0005	<0.0005	<0.0005
4/18/2017	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
5/30/2017	<0.0005				<0.0005			
5/31/2017						<0.0005	<0.0005	
2/13/2018	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
5/22/2018					<0.0005	<0.0005		
5/23/2018								<0.0005
5/24/2018							<0.0005	
6/12/2018	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
10/17/2018	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
11/19/2018					<0.0005	<0.0005	<0.0005	<0.0005
3/5/2019			<0.0005					
4/10/2019	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019					<0.0005	<0.0005	<0.0005	<0.0005
10/8/2019					<0.0005	<0.0005	<0.0005	
10/10/2019								<0.0005
10/14/2019	<0.0005							
10/16/2019			<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
2/3/2020					<0.0005	<0.0005	<0.0005	<0.0005
2/4/2020	<0.0005		<0.0005					
2/5/2020		<0.0005						
8/3/2020					<0.0005	<0.0005	<0.0005	
8/4/2020			<0.0005	<0.0005				
8/5/2020	<0.0005	<0.0005						<0.0005
2/22/2021					<0.0005	<0.0005	<0.0005	<0.0005
3/1/2021	<0.0005	<0.0005		<0.0005				
3/2/2021			<0.0005					
7/12/2021					<0.0005	<0.0005	<0.0005	<0.0005
7/13/2021			<0.0005	<0.0005				
7/14/2021	<0.0005	<0.0005						
1/25/2022					<0.0005	<0.0005	<0.0005	<0.0005
1/26/2022		<0.0005	<0.0005	<0.0005				
1/27/2022	<0.0005							

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		<0.0002	
10/3/2016						<0.0002		<0.0002	
10/26/2016						<0.0002		<0.0002	
11/21/2016						<0.0002		<0.0002	
1/17/2017						<0.0002		<0.0002	
3/20/2017						<0.0002			
3/21/2017								<0.0002	
4/17/2017						<0.0002		<0.0002	
5/30/2017						<0.0002		<0.0002	
2/13/2018						<0.0002		<0.0002	
6/11/2018						<0.0002		<0.0002	
10/17/2018						<0.0002		<0.0002	
3/4/2019	<0.0002								
3/5/2019							0.00347 (J)		<0.0002
4/10/2019						<0.0002		<0.0002	
10/14/2019						<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019	<0.0002								
11/26/2019		<0.0002							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	<0.0002		<0.0002				<0.0002	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		<0.0002	0.00247 (J)		<0.0002			<0.0002	<0.0002
3/1/2021						0.00022			
3/2/2021	<0.0002	<0.0002		0.00138					
3/3/2021			0.00123		7.06E-05 (J)		7.93E-05 (J)	<0.0002	<0.0002
7/13/2021					<0.0002				
7/14/2021	<0.0002	<0.0002	0.00203	0.0005		0.00026		<0.0002	<0.0002
7/15/2021							9E-05 (J)		
1/25/2022		<0.0002							
1/26/2022	0.00011 (J)			0.00126		0.00022	0.00012 (J)		
1/27/2022			0.00268		9E-05 (J)			<0.0002	9E-05 (J)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	<0.0002	<0.0002
4/26/2016					<0.0002			
6/20/2016					<0.0002	<0.0002		<0.0002
6/22/2016							<0.0002	
8/8/2016					<0.0002	<0.0002		
8/9/2016							<0.0002	<0.0002
8/24/2016	0.0031 (J)				<0.0002	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				<0.0002	<0.0002		<0.0002
10/4/2016							<0.0002	
10/26/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/21/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002				<0.0002	<0.0002		
1/18/2017							<0.0002	<0.0002
3/20/2017	<0.0002							
3/22/2017					<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/30/2017	<0.0002				<0.0002			
5/31/2017						<0.0002	<0.0002	
2/13/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/22/2018					<0.0002	<0.0002		
5/23/2018								<0.0002
5/24/2018							<0.0002	
6/12/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/17/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/19/2018					<0.0002	<0.0002	<0.0002	<0.0002
3/5/2019			<0.0002					
4/10/2019	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019					<0.0002	<0.0002	<0.0002	<0.0002
10/8/2019					<0.0002	<0.0002	<0.0002	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
2/3/2020					<0.0002	<0.0002	<0.0002	<0.0002
2/4/2020	<0.0002		<0.0002					
2/5/2020		<0.0002						
8/3/2020					<0.0002	<0.0002	<0.0002	
8/4/2020			<0.0002	0.00423 (J)				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					<0.0002	<0.0002	<0.0002	0.000131 (J)
3/1/2021	0.00277	0.000654		0.000532				
3/2/2021			<0.0002					
7/12/2021					<0.0002	<0.0002	<0.0002	0.00014 (J)
7/13/2021			<0.0002	0.00056				
7/14/2021	0.00015 (J)	0.00026						
1/25/2022					<0.0002	<0.0002	8E-05 (J)	0.00011 (J)
1/26/2022		0.00078	<0.0002	0.0003				
1/27/2022	0.00012 (J)							

Time Series

Constituent: pH (pH) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						6.28		3.83 (E)	
10/3/2016						6.28		3.82 (E)	
10/26/2016						6.19		3.81 (E)	
11/21/2016						6.2		3.81	
1/17/2017						6.13		3.78	
3/20/2017						6.17			
3/21/2017								3.76	
4/17/2017						5.6		3.76	
5/30/2017						6.07		3.76	
8/24/2017						5.99		3.7	
2/13/2018						5.88		3.73	
6/11/2018						5.91		3.8	
10/17/2018						5.88		3.81	
3/4/2019	6.04								
3/5/2019							6.7		6.19
4/10/2019						5.83		3.83	
10/14/2019						6.04	6.39	3.91	5.89
10/16/2019	6.07								
2/3/2020						5.98	5.88		5.84
2/4/2020	6.02	4.57		6				3.83	
8/4/2020	5.74			5.89		6.09	5.9		
8/5/2020		4.13	6.15		3.83			3.86	5.81
3/1/2021						5.82			
3/2/2021	5.89	4.11		5.85					
3/3/2021			6.11		4.02		5.76	3.76	5.75
7/13/2021					3.8				
7/14/2021	5.72	4.04	6.21	5.55		5.93		3.74	5.75
7/15/2021							5.92		
1/25/2022		4.11							
1/26/2022	5.95			6.08		6.52	6.61		
1/27/2022			6.19		4.1			3.73	6.17

Time Series

Constituent: pH (pH) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						5.94	5.56	6.22
4/26/2016					5.2			
6/20/2016					5.18	5.96		6.21
6/22/2016							5.57	
8/8/2016					5.12	5.88		
8/9/2016							5.67	6.11
8/24/2016	6.78						5.63	6.11
10/3/2016	6.71				5.21	5.91		6.13
10/4/2016							5.69	
10/26/2016	6.65				5.2	5.84	5.56	6.12
11/21/2016	6.7				5.19	5.82	5.42	6.09
1/17/2017	6.25				5.17	5.87		
1/18/2017							5.11	6.09
3/20/2017	7.04							
3/22/2017					5.2	6.01	4.52	6.15
4/18/2017	6.99				5.2	6.02	5.84	6.19
5/30/2017	6.98				5.14			
5/31/2017						5.85	4.56	
8/23/2017					5.12	5.89	4.77	6.12
8/24/2017	6.89							
2/13/2018	6.85				5.18	6.21	5.67	6.22
5/22/2018					5.2	6.04		
5/23/2018								6.21
5/24/2018							5.19	
6/12/2018	6.83				5.15	5.95	4.79	6.16
10/17/2018	6.81				5.12	5.9	4.75	6.12
11/19/2018					5.09	6.03	3.77 (o)	6.16
3/5/2019			5.88					
4/10/2019	6.71				5.11	6.1	5.54	6.14
5/14/2019					5.19	6.07	5.71	6.23
10/8/2019					5.12	5.96	4.98	
10/10/2019								6.15
10/14/2019	6.88							
10/16/2019			5.43		5.16	5.98	4.51	6.19
2/3/2020					5	5.95	5.54	6.14
2/4/2020	6.85		5.34					
2/5/2020		7.48						
8/3/2020					5.08	5.95	5.06	
8/4/2020			5.33	6.88				
8/5/2020	6.76	7.58						6.15
2/22/2021					5.06	6.1	5.59	6.19
3/1/2021	6.48	7.67		6.84				
3/2/2021			5.29					
7/12/2021					5.13	6.16	5.86	6.06
7/13/2021			5.13	6.92				
7/14/2021	6.88	7.97						
1/25/2022					5.11	6.22	5.9	6.3
1/26/2022		8.18	5.35	6.89				
1/27/2022	6.85							

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		0.00234 (J)	
10/3/2016						<0.00102		0.00739 (J)	
10/26/2016						<0.00102		0.00266 (J)	
11/21/2016						<0.00102		0.00212 (J)	
1/17/2017						<0.00102		0.00263 (J)	
3/20/2017						<0.00102			
3/21/2017								0.00588 (J)	
4/17/2017						0.00521 (J)		0.00579 (J)	
5/30/2017						<0.00102		0.00471 (J)	
2/13/2018						0.00267 (J)		0.00498 (J)	
6/11/2018						0.00236 (J)		0.00388 (J)	
10/17/2018						<0.00102		<0.00102	
3/4/2019	<0.00102								
3/5/2019							<0.00102		<0.00102
4/10/2019						0.00234 (J)		0.00322 (J)	
10/14/2019						<0.00102	<0.00102	<0.00102	<0.00102
10/16/2019	<0.00102								
11/26/2019		0.00614 (J)							
2/3/2020						<0.00102	<0.00102		<0.00102
2/4/2020	<0.00102	<0.00102		<0.00102				<0.00102	
8/4/2020	<0.00102			<0.00102		<0.00102	<0.00102		
8/5/2020		0.00417 (J)	<0.00102		0.00571 (J)			0.00298 (J)	<0.00102
3/1/2021						0.00141			
3/2/2021	<0.00102	0.00463		<0.00102					
3/3/2021			<0.00102		0.00554		<0.00102	0.00294	0.000749 (J)
7/13/2021					0.00607				
7/14/2021	<0.00102	0.00441	<0.00102	<0.00102		0.00151		0.00563	0.00095 (J)
7/15/2021							<0.00102		
1/25/2022		0.00311							
1/26/2022	<0.00102			0.00069 (J)		0.00117	<0.00102		
1/27/2022			<0.00102		0.00401			0.00817	0.00101 (J)

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	<0.00102	<0.00102
4/26/2016					0.00261 (J)			
6/20/2016					0.00242 (J)	<0.00102		<0.00102
6/22/2016							<0.00102	
8/8/2016					0.00253 (J)	<0.00102		
8/9/2016							<0.00102	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/3/2016	<0.00102				0.00211 (J)	<0.00102		<0.00102
10/4/2016							<0.00102	
10/26/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							<0.00102	<0.00102
3/20/2017	<0.00102							
3/22/2017					0.0022 (J)	<0.00102	0.0141	<0.00102
4/18/2017	<0.00102				0.0027 (J)	<0.00102	0.0158	<0.00102
5/30/2017	<0.00102				0.00316 (J)			
5/31/2017						<0.00102	0.00632 (J)	
2/13/2018	<0.00102				0.00211 (J)	<0.00102	0.0209	0.00403 (J)
5/22/2018					0.00372 (J)	<0.00102		
5/23/2018								<0.00102
5/24/2018							0.00918 (J)	
6/12/2018	<0.00102				0.00409 (J)	<0.00102	0.00836 (J)	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/19/2018					<0.00102	<0.00102	0.00439 (J)	0.00436 (J)
3/5/2019			<0.00102					
4/10/2019	<0.00102				0.00471 (J)	0.00322 (J)	0.0113	<0.00102
5/14/2019					0.00316 (J)	<0.00102	0.0119	0.00201 (J)
10/8/2019					<0.00102	<0.00102	0.00256 (J)	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			<0.00102		<0.00102	<0.00102	0.00286 (J)	<0.00102
2/3/2020					0.00272 (J)	<0.00102	0.012	0.00212 (J)
2/4/2020	<0.00102		<0.00102					
2/5/2020		<0.00102						
8/3/2020					0.00278 (J)	<0.00102	0.0146	
8/4/2020			<0.00102	<0.00102				
8/5/2020	<0.00102	<0.00102						0.00232 (J)
2/22/2021					0.00241	<0.00102	0.0181	0.00222
3/1/2021	<0.00102	<0.00102		<0.00102				
3/2/2021			0.00138					
7/12/2021					0.0028	<0.00102	0.0133	0.00155
7/13/2021			0.00141	<0.00102				
7/14/2021	<0.00102	<0.00102						
1/25/2022					0.00216	<0.00102	0.0154	0.00224
1/26/2022		<0.00102	0.00129	<0.00102				
1/27/2022	<0.00102							

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						2910		567	
10/3/2016						2980		596	
10/26/2016						2790		585	
11/21/2016						2880		593	
1/17/2017						2950		637	
3/20/2017						2800			
3/21/2017								530	
4/17/2017						2400		530	
5/30/2017						2900		530	
8/24/2017						2900		530	
6/11/2018						2900		540	
10/17/2018						2800		520	
3/4/2019	785								
3/5/2019							1170		871
4/10/2019						2980		616	
10/14/2019						3110	1710	641	818
10/16/2019	750								
11/26/2019		997							
2/3/2020						2840	1970		808
2/4/2020	725	978		720				571	
8/4/2020	694			773		2820	1860		
8/5/2020		811	1830		796			519	761
3/1/2021						2320			
3/2/2021	835	890		861					
3/3/2021			1930		803		1930	609	746
7/13/2021					787				
7/14/2021	747	878	2000	857		2880		752	797
7/15/2021							1960		
1/25/2022		903							
1/26/2022	745			883		2620	2010		
1/27/2022			1990		784			1130	825

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						745	1890	2260
4/26/2016					1490			
6/20/2016					1420	964		2500
6/22/2016							2100	
8/8/2016					1460	1100		
8/9/2016							2050	2750
8/24/2016	1250				1450	1130	2190	2770
10/3/2016	1270				1460	1140		3060
10/4/2016							1950	
10/26/2016	1240				1330	1060	1980	2650
11/21/2016	1210				1420	1100	2060	2720
1/17/2017	1150				1350	1160		
1/18/2017							2620	2650
3/20/2017	1400							
3/22/2017					1500	900	3200	2700
4/18/2017	1300				1300	870	2500	2400
5/30/2017	1500				1400			
5/31/2017						1100	2800	
8/23/2017					1500	920	2600	2700
8/24/2017	1800							
5/22/2018					2100 (o)	1200		
5/23/2018								2400
5/24/2018							2700	
6/12/2018	1800				1500	860	2500	2600
10/17/2018	1600				1400	970	2700	2600
11/19/2018					1300	1000	3000	2400
3/5/2019			2010					
4/10/2019	2150				1700	889	2460	2090
5/14/2019					1560	948	2460	2240
10/8/2019					1540	1230	2950	
10/10/2019								2690
10/14/2019	2090							
10/16/2019			2020		1680	1170	2820	3050
2/3/2020					1510	803	2290	1920
2/4/2020	1570		1710					
2/5/2020		223						
8/3/2020					1370	907	2330	
8/4/2020			1790	1700				
8/5/2020	1880	243						1930
2/22/2021					1400	864	3040	2040
3/1/2021	1450	183		1680				
3/2/2021			1750					
7/12/2021					1560	763	2380	1930
7/13/2021			1750	1820				
7/14/2021	1700	196						
1/25/2022					1430	842	2550	1930
1/26/2022		199	1660	1820				
1/27/2022	2000							

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		<0.0002	
10/3/2016						<0.0002		<0.0002	
10/26/2016						<0.0002		<0.0002	
11/21/2016						<0.0002		<0.0002	
1/17/2017						<0.0002		<0.0002	
3/20/2017						<0.0002			
3/21/2017								<0.0002	
4/17/2017						<0.0002		<0.0002	
5/30/2017						<0.0002		<0.0002	
2/13/2018						<0.0002		<0.0002	
6/11/2018						<0.0002		<0.0002	
10/17/2018						<0.0002		<0.0002	
3/4/2019	<0.0002								
3/5/2019							<0.0002		<0.0002
4/10/2019						<0.0002		<0.0002	
10/14/2019						<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019	<0.0002								
11/26/2019		0.000375 (J)							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	0.000491 (J)		<0.0002				<0.0002	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		0.000297 (J)	<0.0002		<0.0002			0.000205 (J)	<0.0002
3/1/2021						<0.0002			
3/2/2021	<0.0002	0.000371		<0.0002					
3/3/2021			<0.0002		7.98E-05 (J)		<0.0002	0.000178 (J)	<0.0002
7/13/2021					<0.0002				
7/14/2021	<0.0002	0.00034	<0.0002	<0.0002		<0.0002		9E-05 (J)	<0.0002
7/15/2021							<0.0002		
1/25/2022		0.00032							
1/26/2022	<0.0002			<0.0002		<0.0002	<0.0002		
1/27/2022			<0.0002		7E-05 (J)			0.00022	<0.0002

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	0.000205 (J)	<0.0002
4/26/2016					<0.0002			
6/20/2016					<0.0002	<0.0002		<0.0002
6/22/2016							<0.0002	
8/8/2016					<0.0002	<0.0002		
8/9/2016							<0.0002	<0.0002
8/24/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				<0.0002	<0.0002		<0.0002
10/4/2016							<0.0002	
10/26/2016	<0.0002				<0.0002	<0.0002	0.000209 (J)	<0.0002
11/21/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002				<0.0002	<0.0002		
1/18/2017							<0.0002	<0.0002
3/20/2017	<0.0002							
3/22/2017					<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/30/2017	<0.0002				<0.0002			
5/31/2017						<0.0002	<0.0002	
2/13/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/22/2018					<0.0002	<0.0002		
5/23/2018								<0.0002
5/24/2018							<0.0002	
6/12/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/17/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/19/2018					<0.0002	<0.0002	0.000226 (J)	<0.0002
3/5/2019			0.00021 (J)					
4/10/2019	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019					<0.0002	<0.0002	<0.0002	<0.0002
10/8/2019					<0.0002	<0.0002	<0.0002	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			0.000262 (J)		<0.0002	<0.0002	<0.0002	<0.0002
2/3/2020					<0.0002	<0.0002	<0.0002	<0.0002
2/4/2020	<0.0002		0.000233 (J)					
2/5/2020		<0.0002						
8/3/2020					<0.0002	<0.0002	<0.0002	
8/4/2020			0.000265 (J)	<0.0002				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					<0.0002	<0.0002	<0.0002	<0.0002
3/1/2021	<0.0002	<0.0002		<0.0002				
3/2/2021			0.000221					
7/12/2021					<0.0002	<0.0002	<0.0002	<0.0002
7/13/2021			0.00013 (J)	<0.0002				
7/14/2021	<0.0002	<0.0002						
1/25/2022					<0.0002	<0.0002	<0.0002	<0.0002
1/26/2022		<0.0002	0.00022	<0.0002				
1/27/2022	<0.0002							

Time Series

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						5020		992	
10/3/2016						4880		988	
10/26/2016						5020		1030	
11/21/2016						5090		1020	
1/17/2017						4330		988	
3/20/2017						2690			
3/21/2017								990	
4/17/2017						4780		884	
5/30/2017						5170		1060	
8/24/2017						5140		1060	
6/11/2018						4960		944	
10/17/2018						4910		928	
3/4/2019	1150								
3/5/2019							2170		1410
4/10/2019						5090		1000	
10/14/2019						5110	3200	967	1340
10/16/2019	1150								
11/26/2019		1580							
2/3/2020						4920	3660		1290
2/4/2020	1200	1580		1200				978	
8/4/2020	1230			1350		5110	3530		
8/5/2020		1380	3330		1280			938	1330
3/1/2021						4390			
3/2/2021	1190	1390		1450					
3/3/2021			3450		1260		3640	1040	1320
7/13/2021					1180				
7/14/2021	1190	1330	3360	1300		4920		1300	1340
7/15/2021							3430		
1/25/2022		1320							
1/26/2022	1140			1360		4260	3150		
1/27/2022			3170		1130			1840	1330

Time Series

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

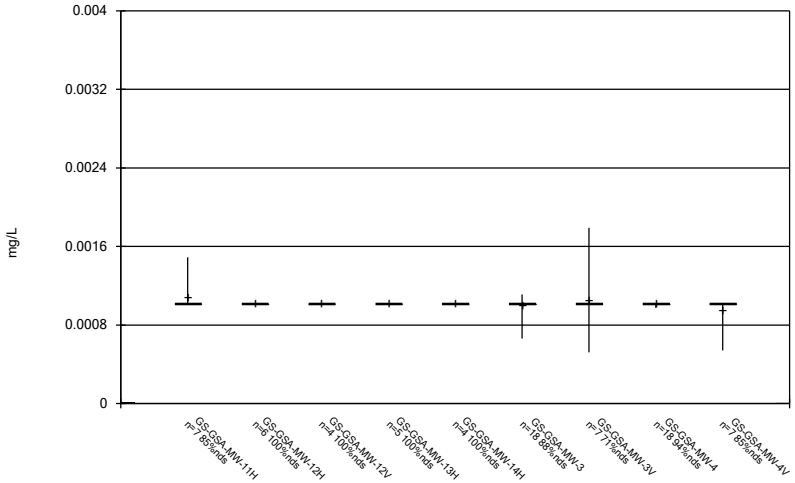
Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						1260	2720	3300
4/26/2016					2080			
6/20/2016					2060	1620		3870
6/22/2016							3250	
8/8/2016					2070	1740		
8/9/2016							3050	4140
8/24/2016	2280				2040	1720	3080	4190
10/3/2016	2370				2110	1800		4190
10/4/2016							2900	
10/26/2016	2350				2000	1800	2940	4400
11/21/2016	2530				2070	1740	3090	4230
1/17/2017	2380				1930	1960		
1/18/2017							4020	4120
3/20/2017	2630							
3/22/2017					2060	1510	4180	3980
4/18/2017	2700				2140	1580	4440	3880
5/30/2017	2980				2240			
5/31/2017						1730	3970	
8/23/2017					2160	1550	4050	3990
8/24/2017	3390							
5/22/2018					2380	1500		
5/23/2018								3740
5/24/2018							3680	
6/12/2018	3510				2400	1550	3820	4080
10/17/2018	3550				2220	1740	4730	4250
11/19/2018					2360	1990	4710	3920
3/5/2019			3240					
4/10/2019	3580				2630	1250	3680	3280
5/14/2019					2340	1480	3580	3130 (D)
10/8/2019					2330	1840	4720	
10/10/2019								4000
10/14/2019	3730							
10/16/2019			3080		3650 (o)	1830	4210	4060
2/3/2020					2380	1440	3530	3240
2/4/2020	3190		3110					
2/5/2020		1100						
8/3/2020					2200	1650	3760	
8/4/2020			2920	3080				
8/5/2020	3610	1100						3200
2/22/2021					2230	1620	4670	3190
3/1/2021	2870	1060		3140				
3/2/2021			2860					
7/12/2021					2210	1390	3510	3000
7/13/2021			2640	2870				
7/14/2021	3150	1060						
1/25/2022					2150	1500	3950	3180
1/26/2022		1050	2490	2890				
1/27/2022	3290							

FIGURE B.

Sanitas™ v.9.6.33 . UG

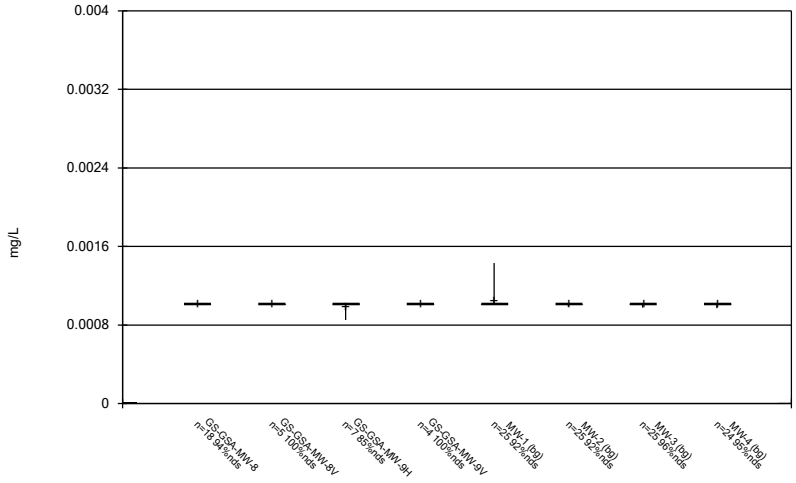
Box & Whiskers Plot



Constituent: Antimony Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

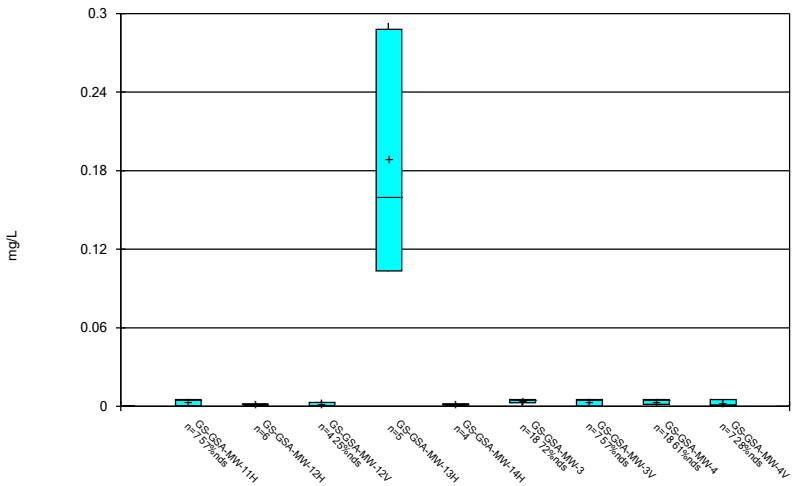
Box & Whiskers Plot



Constituent: Antimony Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

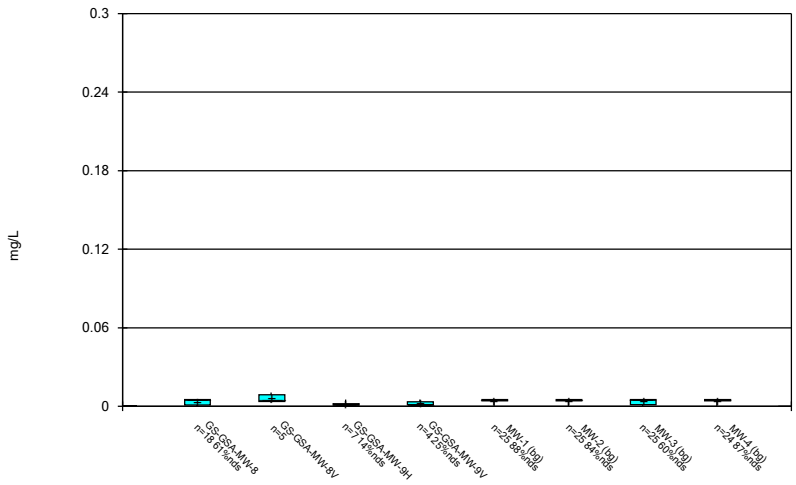
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

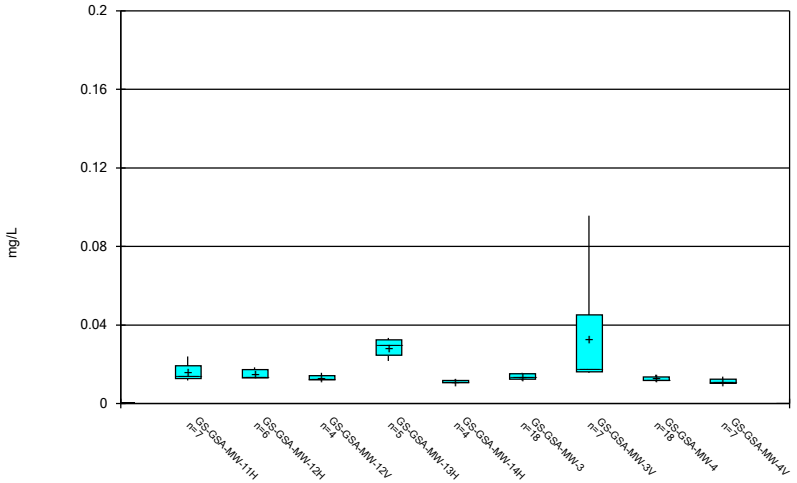
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

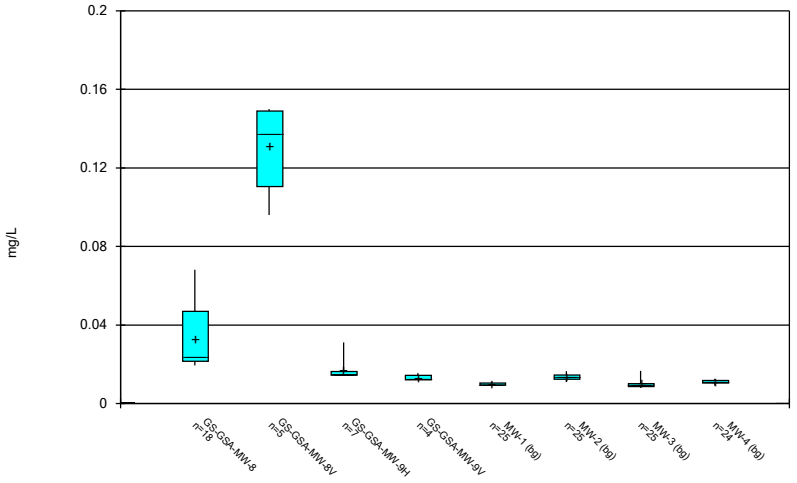
Box & Whiskers Plot



Constituent: Barium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

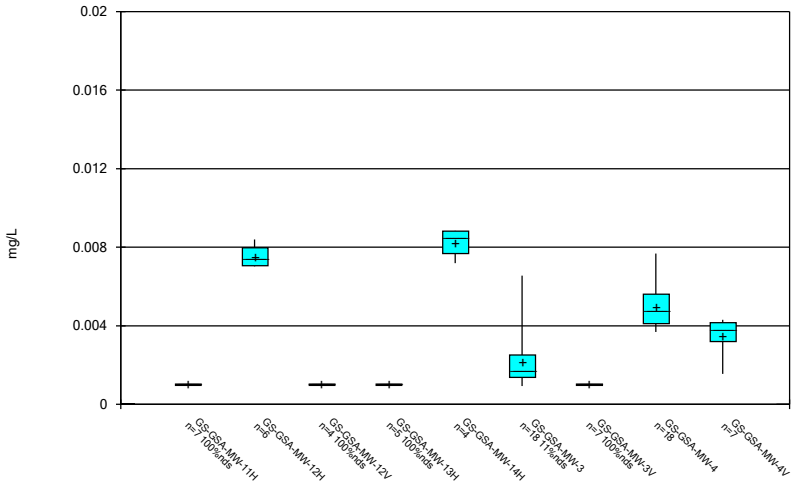
Box & Whiskers Plot



Constituent: Barium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

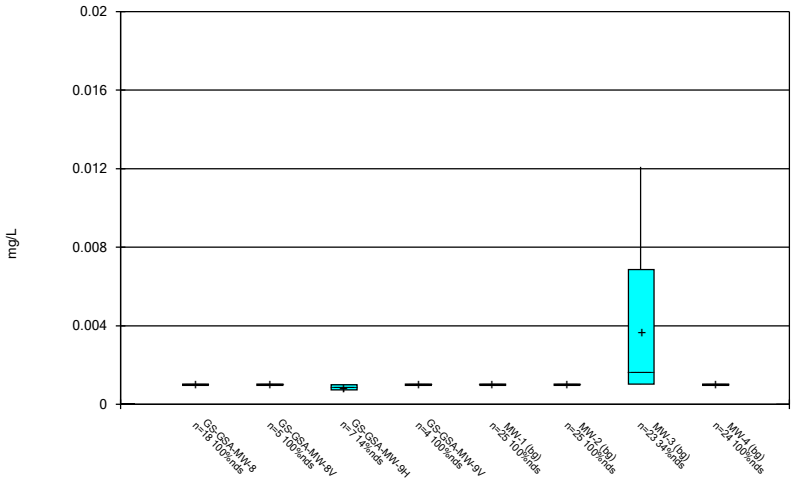
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

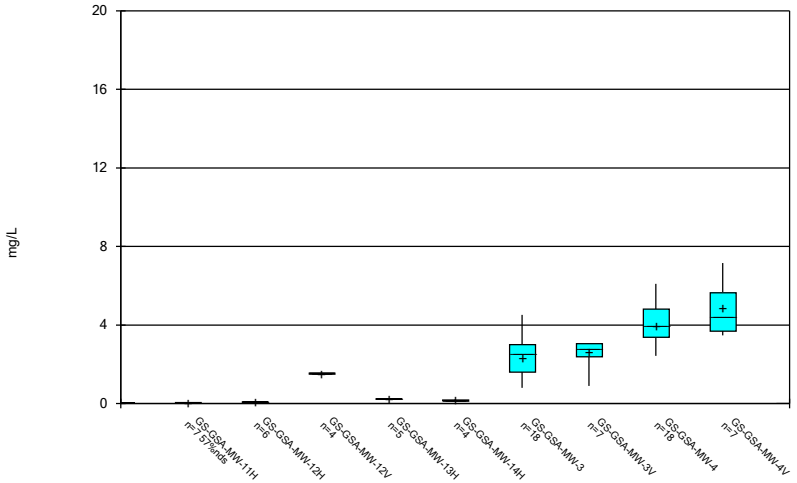
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

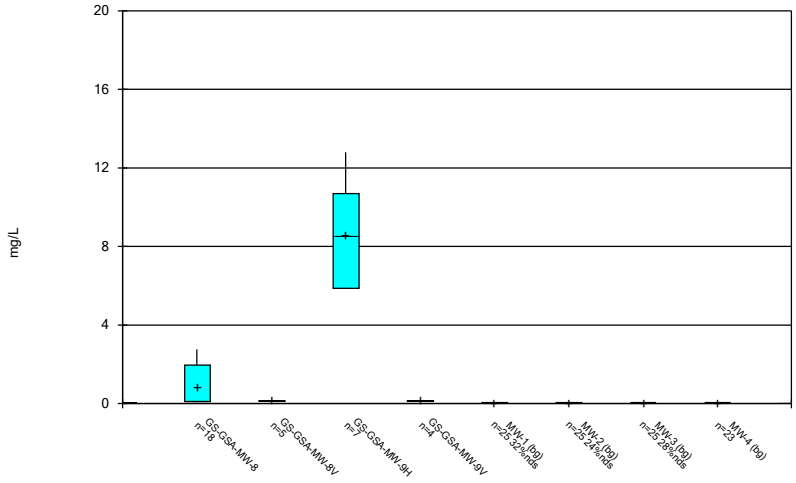
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

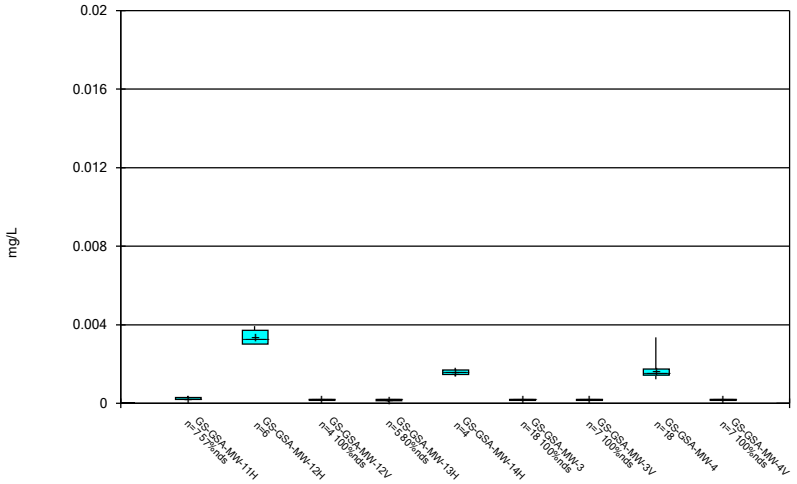
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

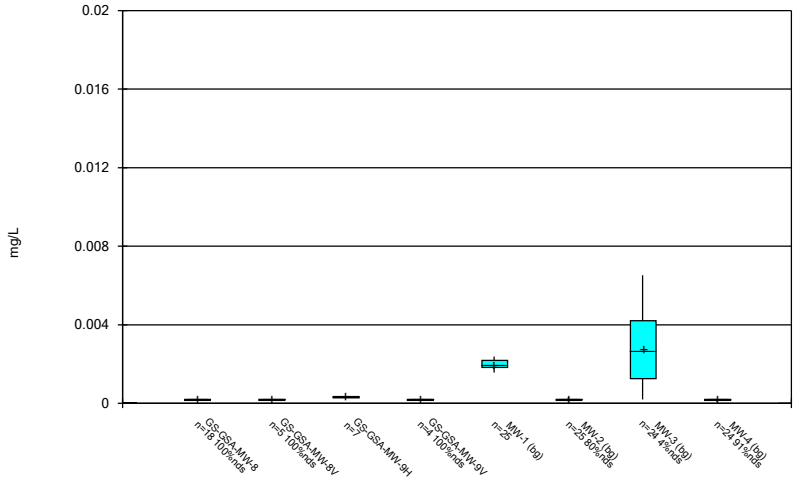
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

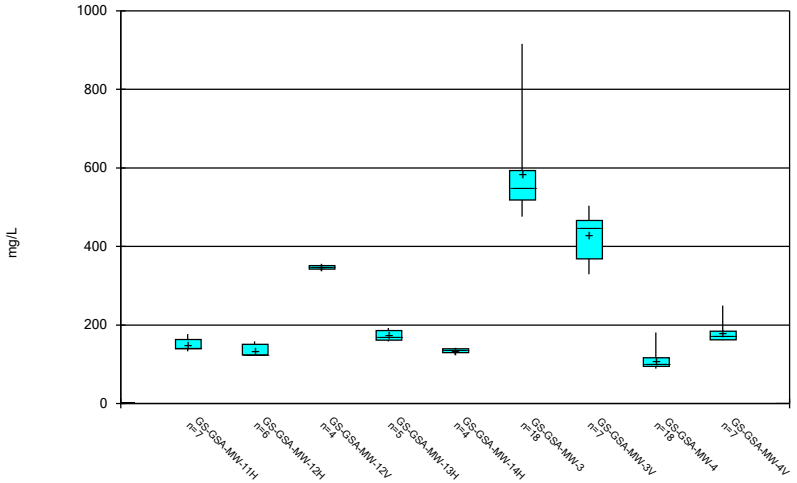
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

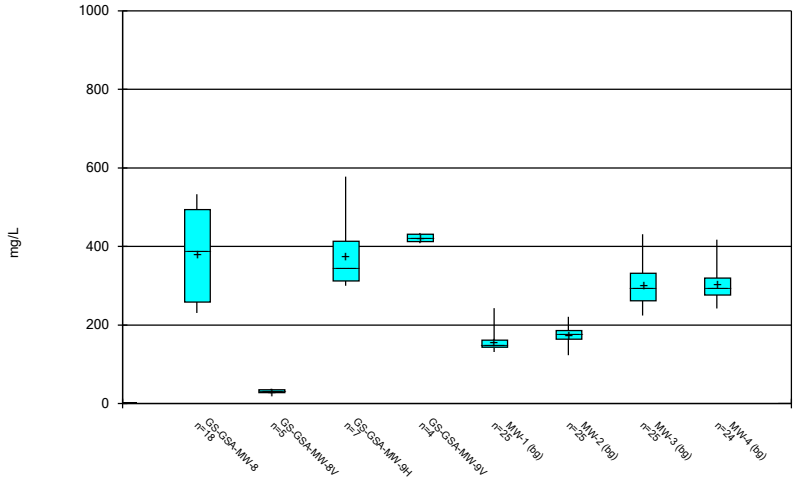
Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

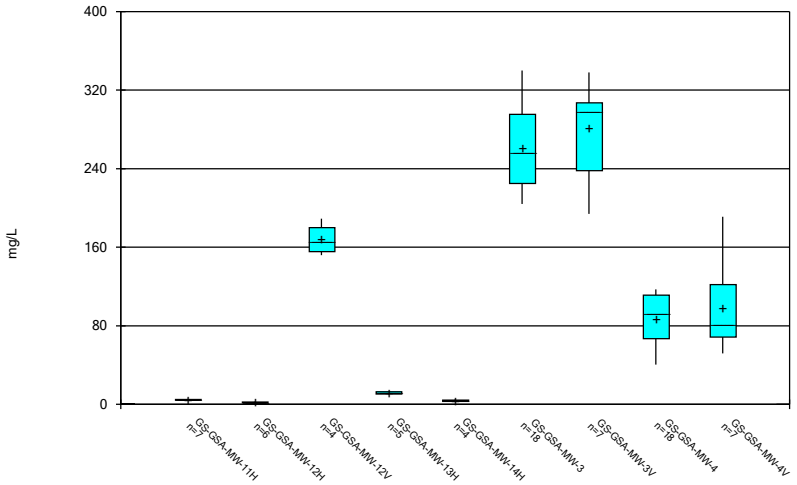
Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

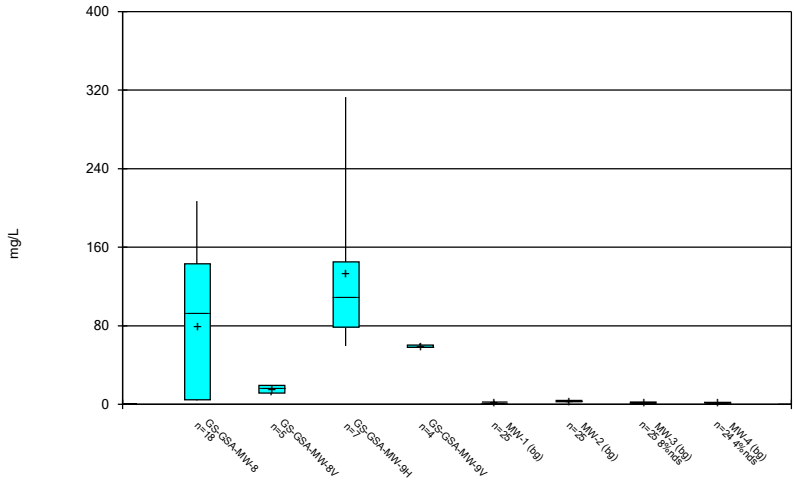
Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

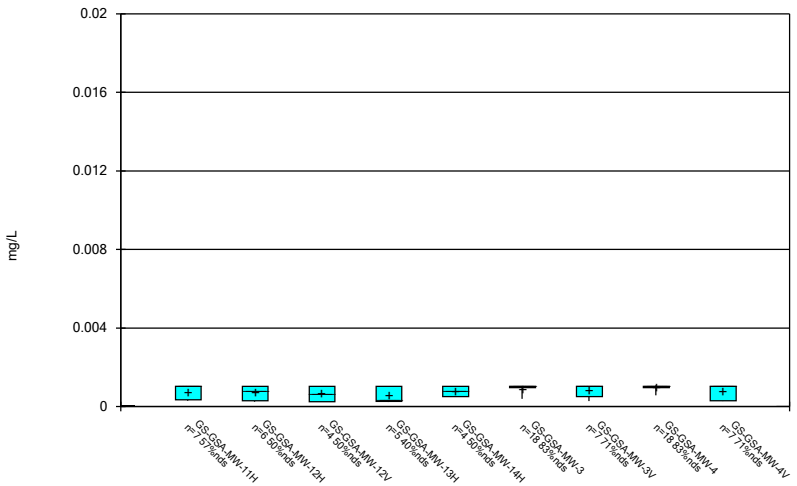
Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

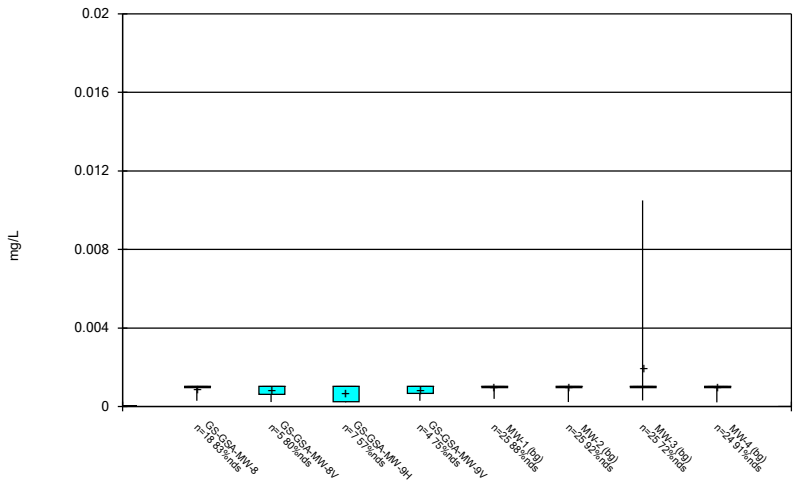
Box & Whiskers Plot



Constituent: Chromium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

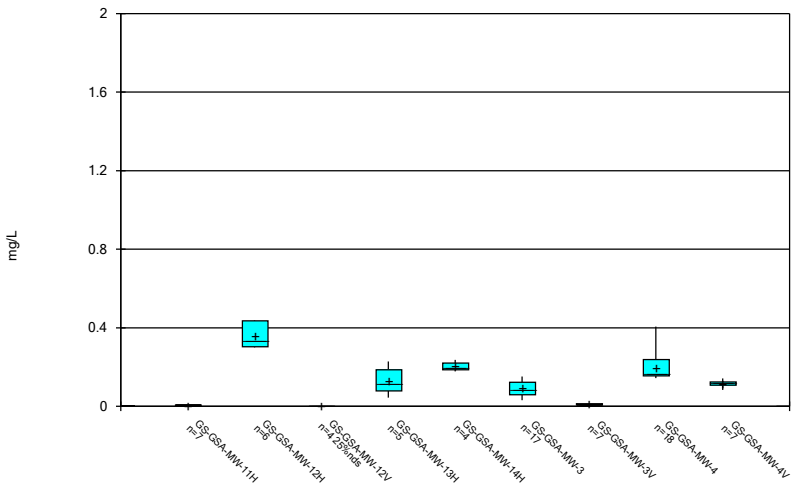
Box & Whiskers Plot



Constituent: Chromium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

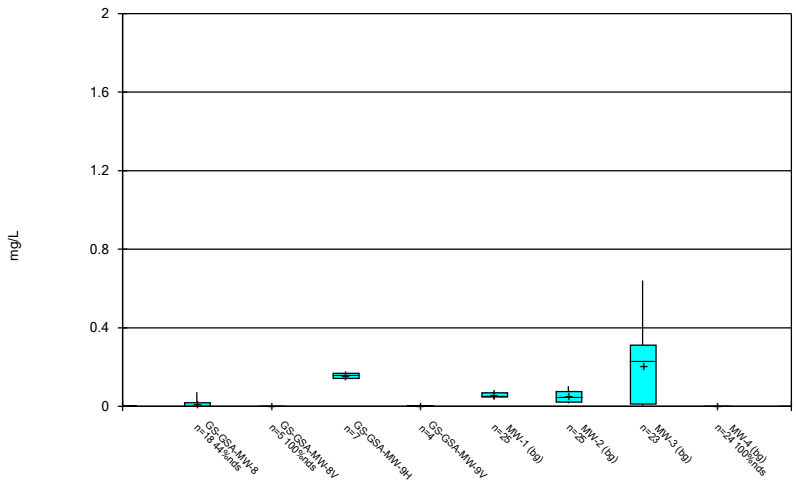
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

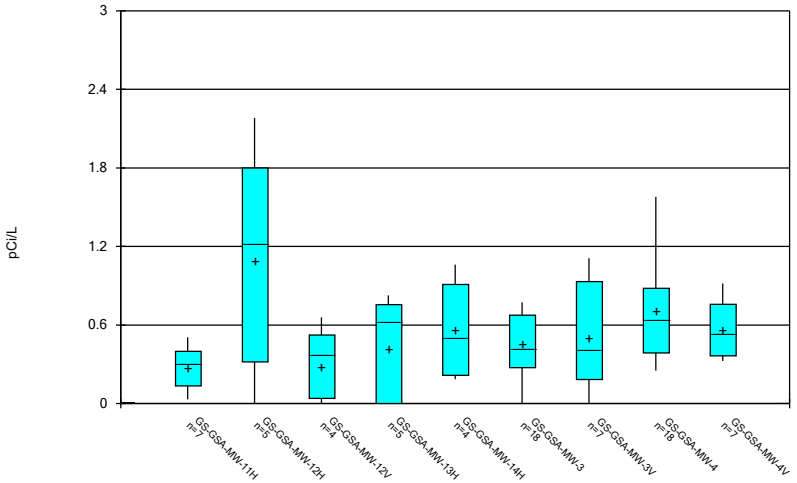
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

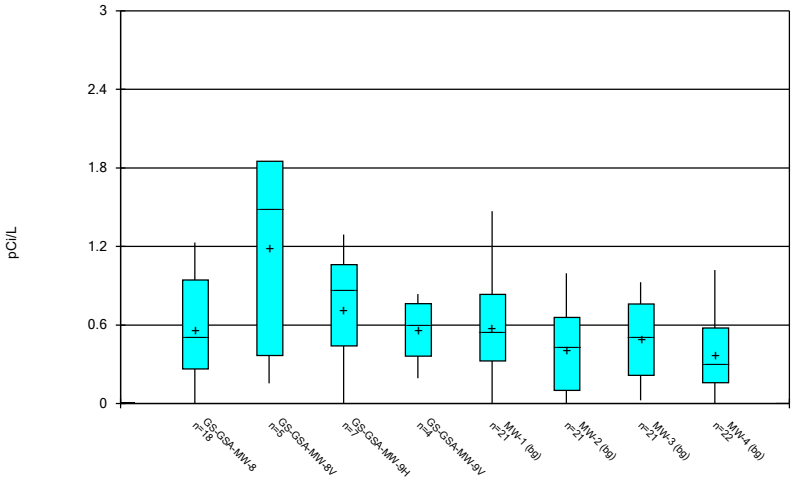
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

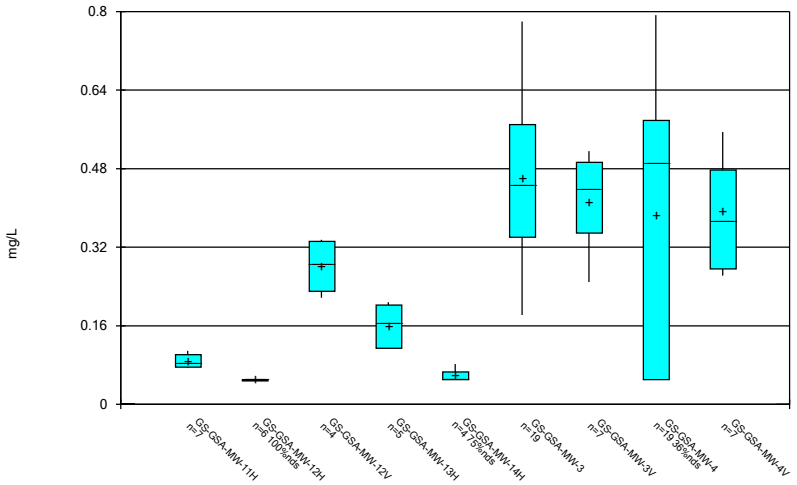
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

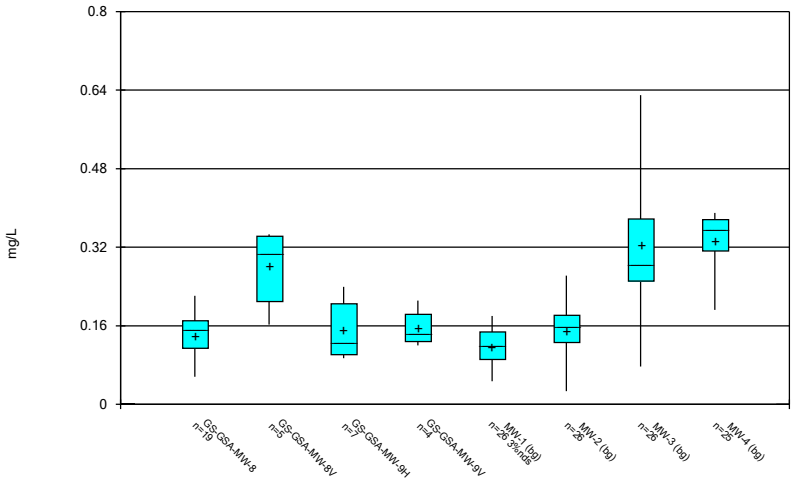
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

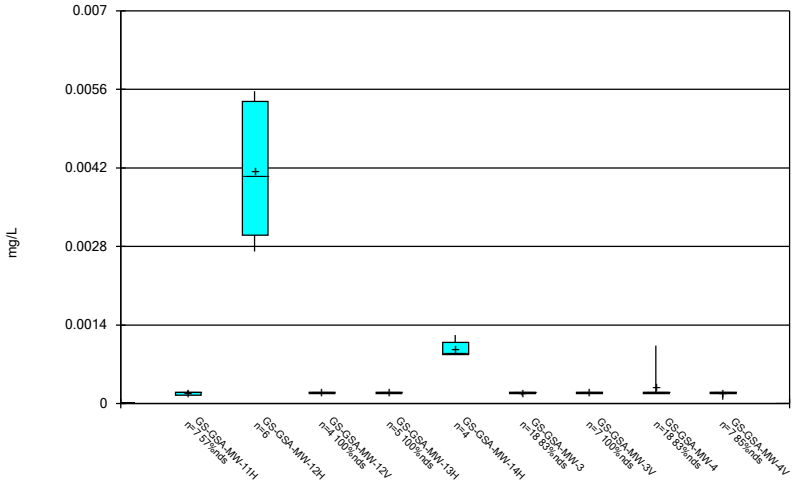
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

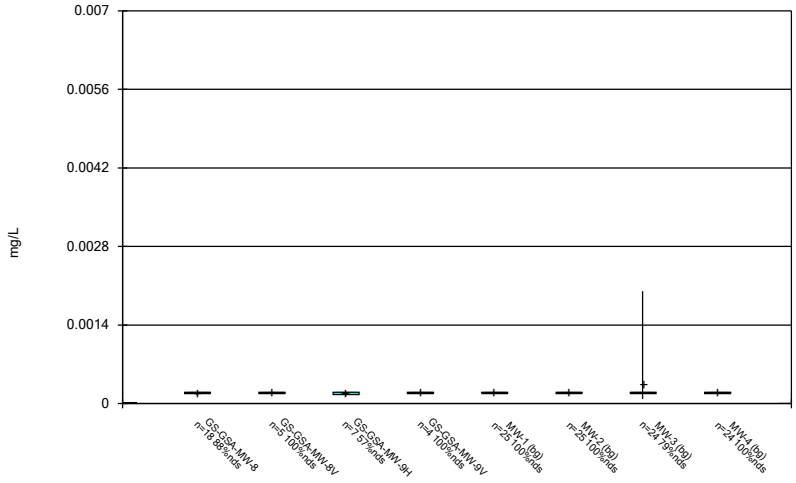
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

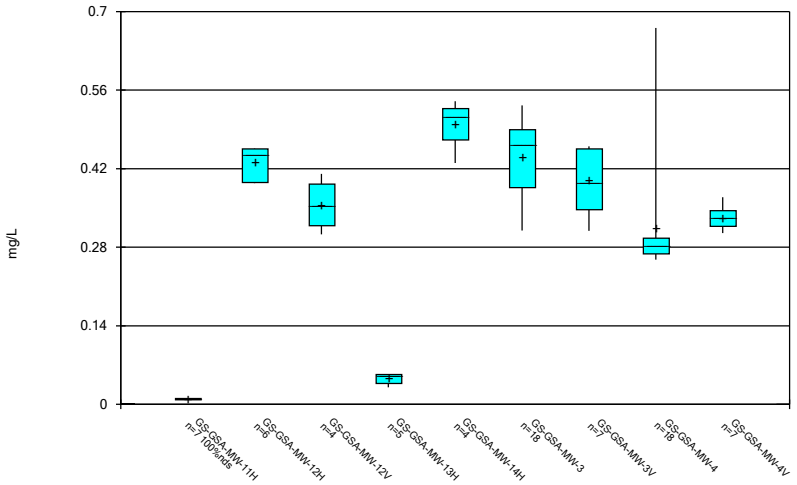
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

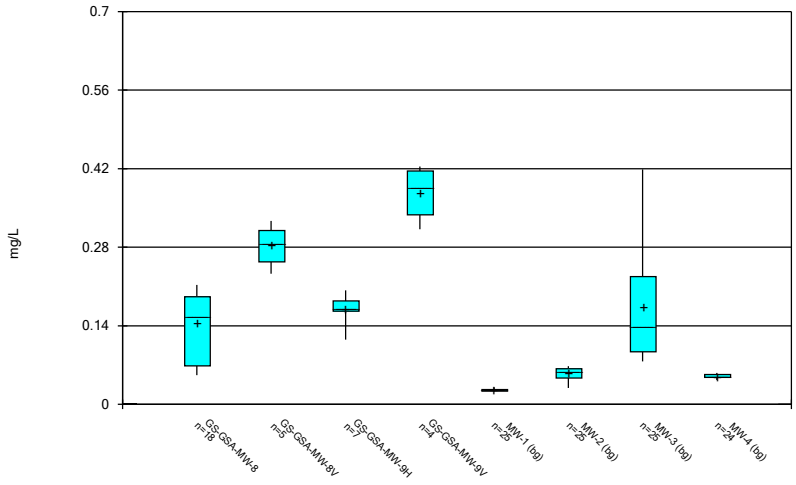
Box & Whiskers Plot



Constituent: Lithium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

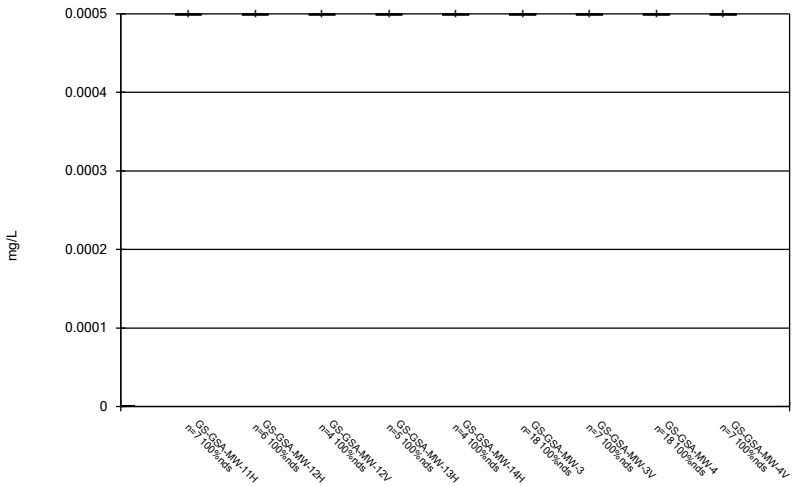
Box & Whiskers Plot



Constituent: Lithium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

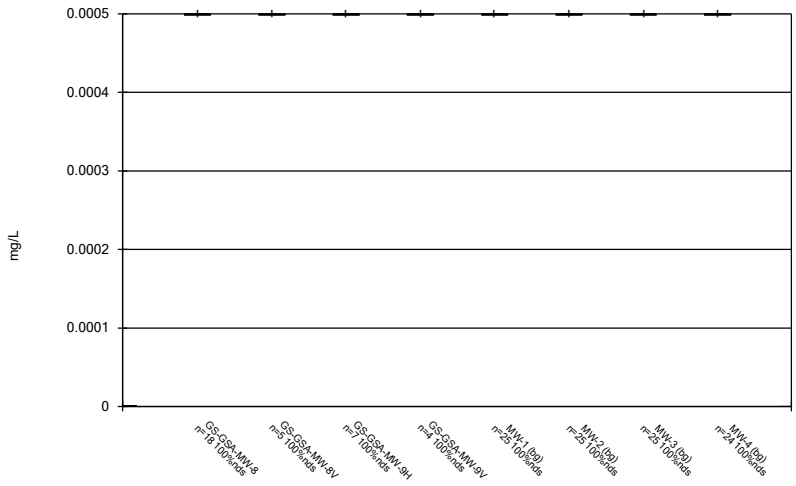
Box & Whiskers Plot



Constituent: Mercury Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

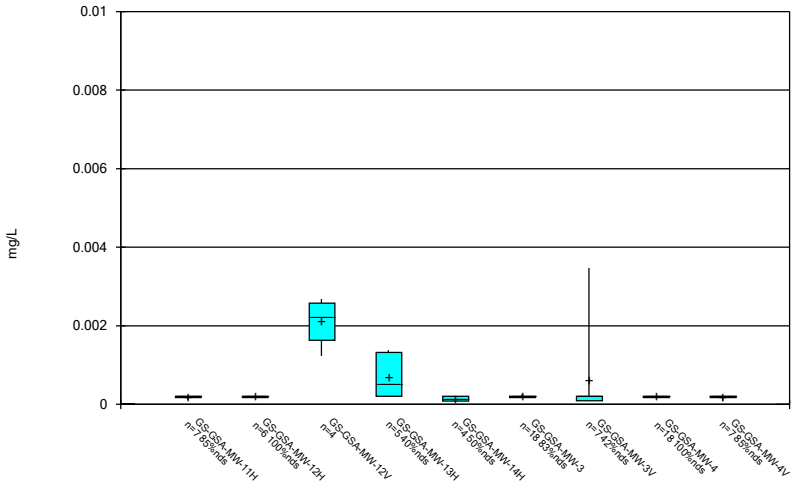
Box & Whiskers Plot



Constituent: Mercury Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

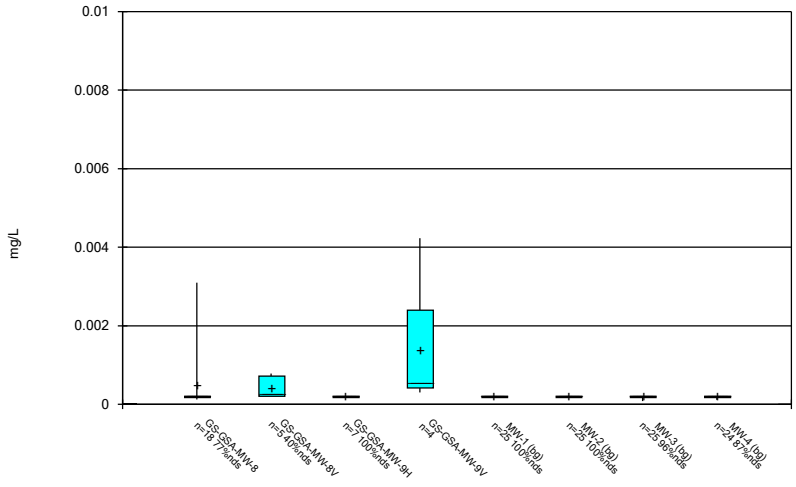
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

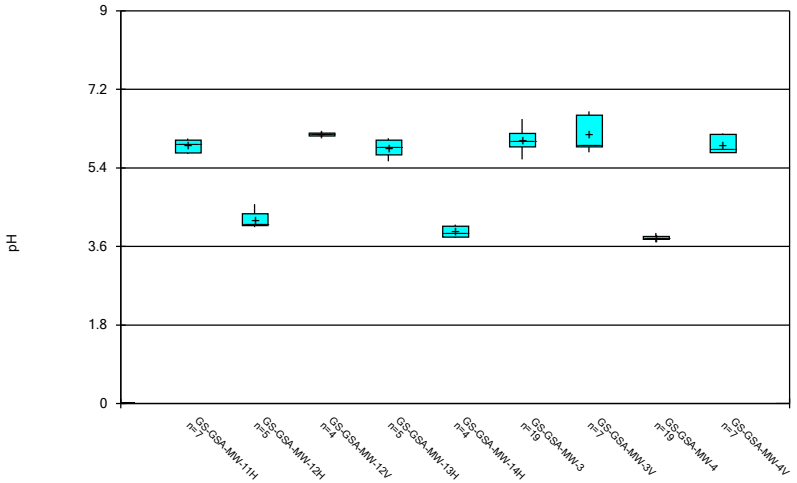
Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

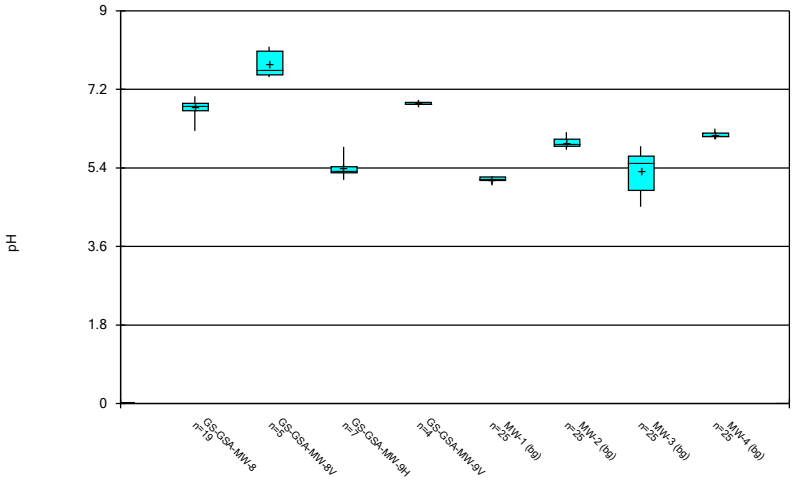
Box & Whiskers Plot



Constituent: pH Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

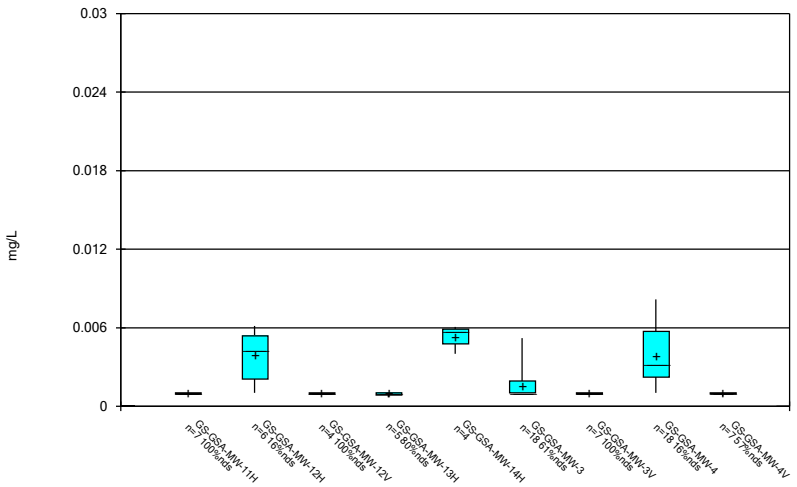
Box & Whiskers Plot



Constituent: pH Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

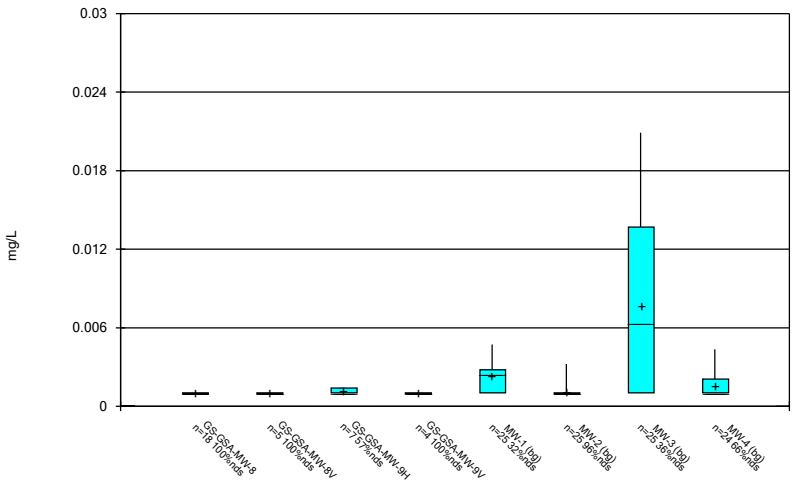
Box & Whiskers Plot



Constituent: Selenium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

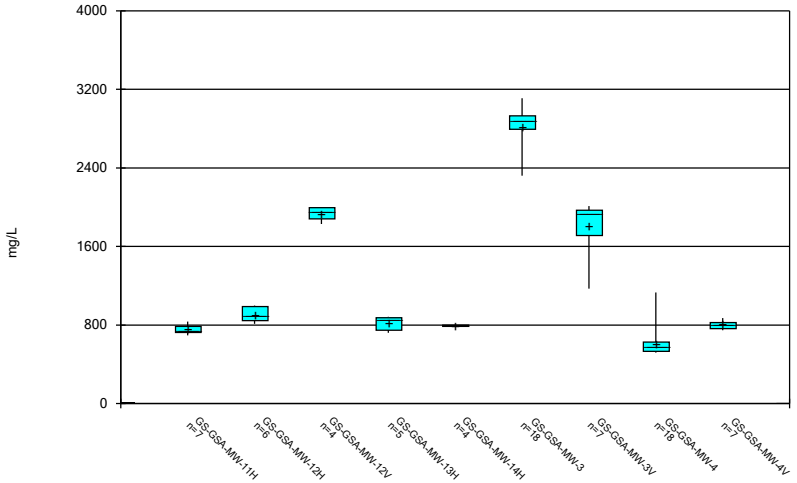
Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Selenium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

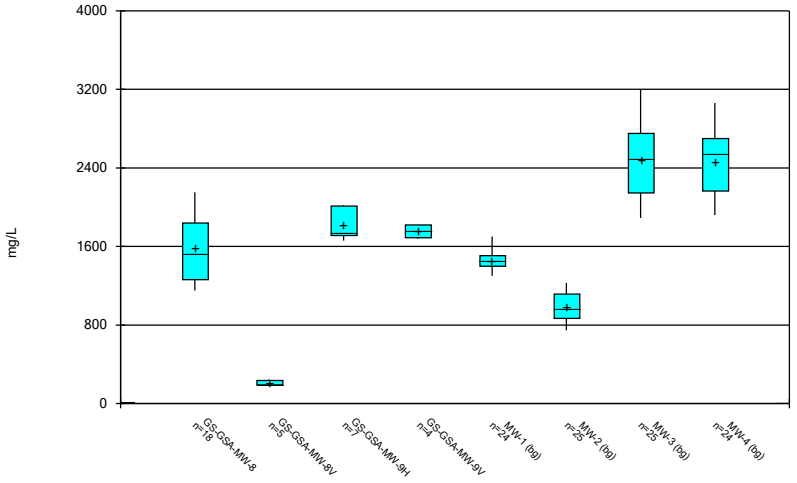
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

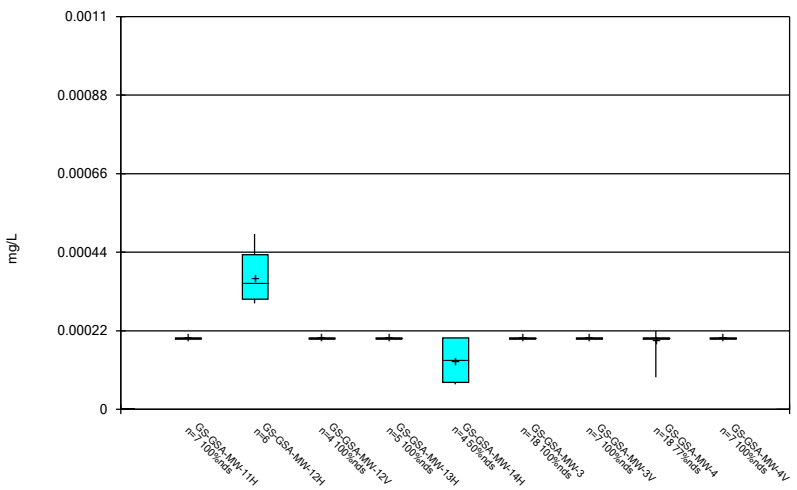
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

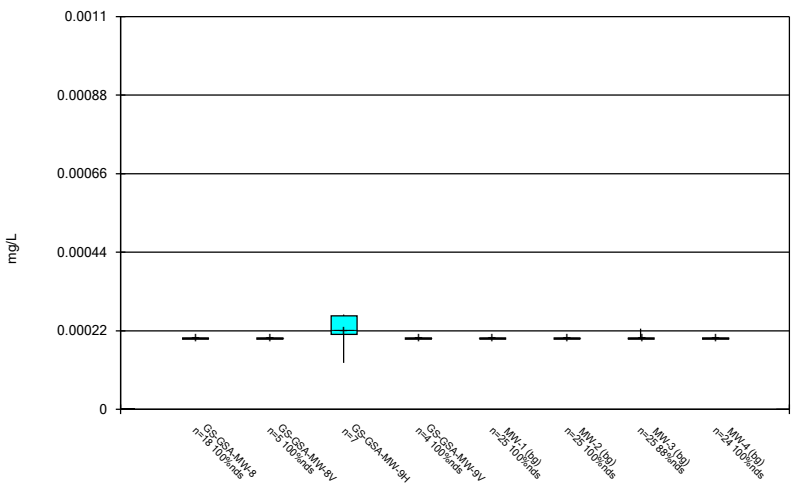
Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

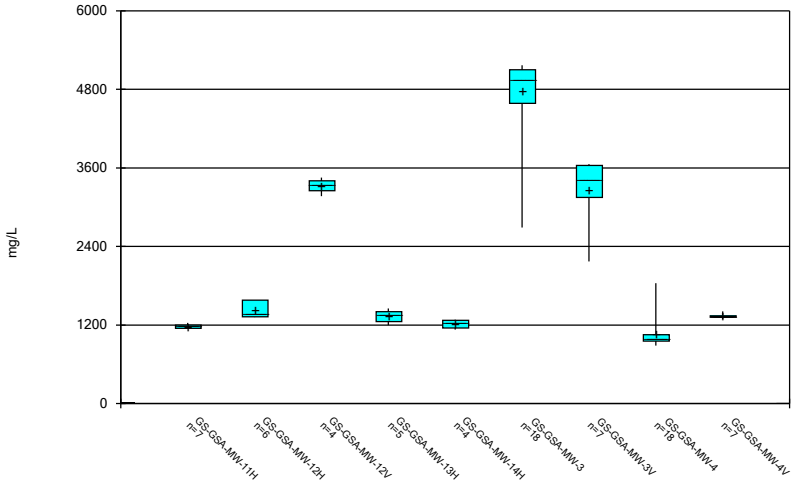
Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

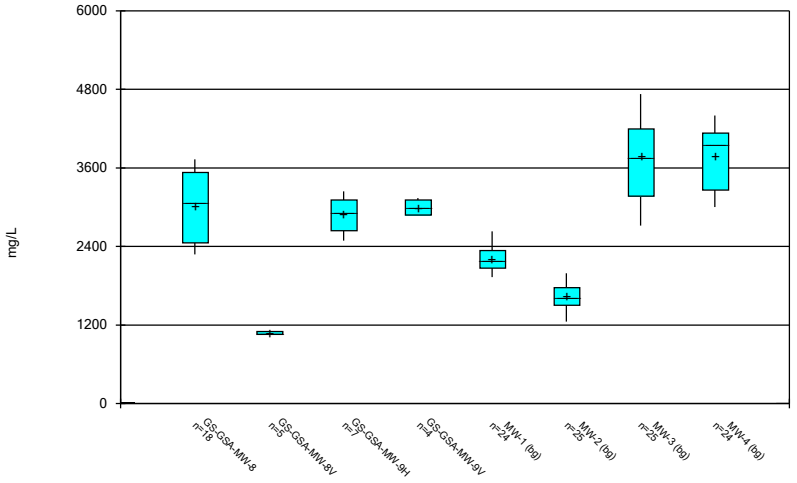
Box & Whiskers Plot



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

FIGURE C.

Outlier Summary

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:07 PM

	MW-3 Beryllium (mg/L)	MW-4 Boron (mg/L)	MW-3 Cadmium (mg/L)	GS-GSA-MW-3 Cobalt (mg/L)	MW-3 Cobalt (mg/L)	MW-3 Lead (mg/L)	MW-3 pH (pH)	MW-1 Sulfate (mg/L)	MW-1 Total dissolved solids (mg/L)
4/25/2016			0.0121 (o)						
1/18/2017	0.0169 (o)								
4/17/2017				0.294 (o)					
5/22/2018								2100 (o)	
11/19/2018	0.0185 (o)					0.00692 (o)	3.77 (o)		
5/14/2019		<0.203 (o)							
10/8/2019					1.07 (o)				
10/16/2019					0.848 (o)				3650 (o)

FIGURE D.

Appendix III Intrawell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

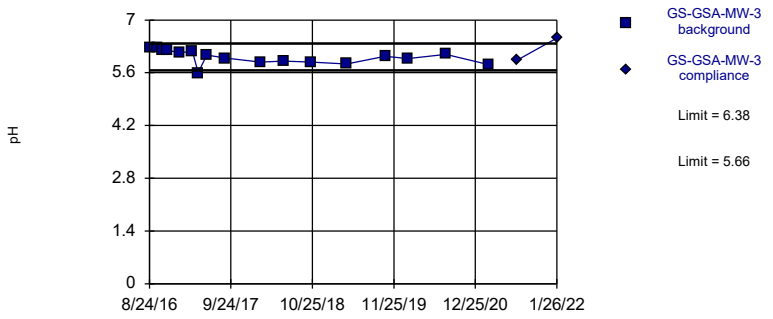
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	GS-GSA-MW-4	3.896	3.699	1/27/2022	3.73	No	17	3.798	0.05044	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	GS-GSA-MW-8	7.149	6.399	1/27/2022	6.85	No	17	6.774	0.1922	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	MW-1	5.249	5.046	1/25/2022	5.11	No	23	5.147	0.05471	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	MW-3	5.987	4.38	1/25/2022	5.9	No	23	149.3	35.15	0	None	x^3	0.001253	Param Intra 1 of 2
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-3	3163	n/a	1/26/2022	2620	No	16	2.3e10	4.4e9	0	None	x^3	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-8	2169	n/a	1/27/2022	2000	No	16	1541	318.8	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	1653	n/a	1/25/2022	1430	No	22	1456	105.3	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	1257	n/a	1/25/2022	842	No	23	1001	137.9	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	3195	n/a	1/25/2022	2550	No	23	2487	381.4	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-4	3107	n/a	1/25/2022	1930	No	22	2505	321.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	GS-GSA-MW-3	5170	n/a	1/26/2022	4260	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	GS-GSA-MW-8	4017	n/a	1/27/2022	3290	No	16	2978	527.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-1	2516	n/a	1/25/2022	2150	No	22	2201	168.2	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-2	2005	n/a	1/25/2022	1500	No	23	1648	192.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-3	4954	n/a	1/25/2022	3950	No	23	3773	635.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-4	4484	n/a	1/25/2022	3180	No	22	5.8e10	1.7e10	0	None	x^3	0.002505	Param Intra 1 of 2

Sanitas™ v.9.6.33 . UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.02, Std. Dev.=0.1846, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9599, critical = 0.851. Kappa = 1.951 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

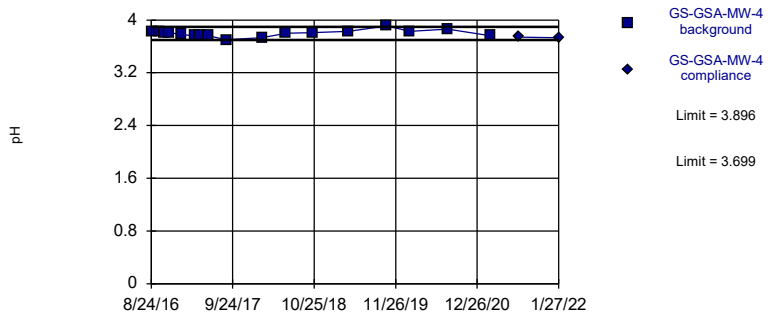
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.798, Std. Dev.=0.05044, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9673, critical = 0.851. Kappa = 1.951 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

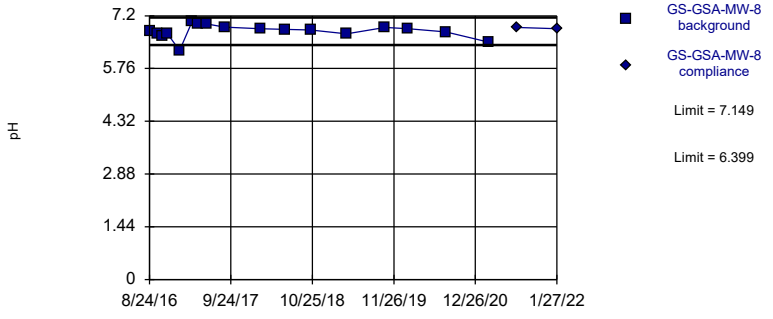
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.774, Std. Dev.=0.1922, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9038, critical = 0.851. Kappa = 1.951 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

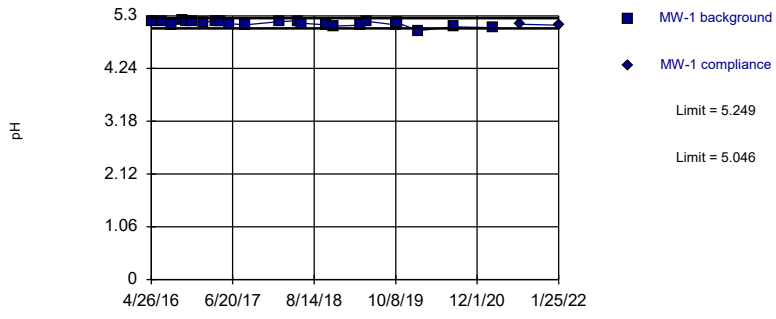
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.147, Std. Dev.=0.05471, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8955, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

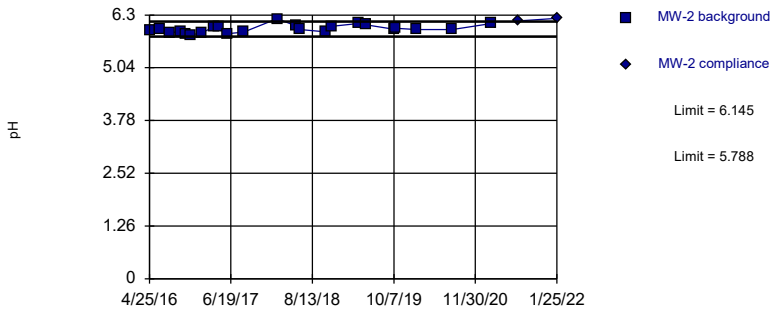
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.967, Std. Dev.=0.09604, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9622, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

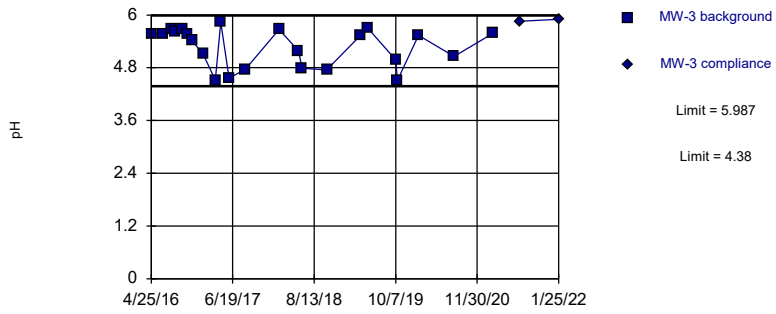
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=149.3, Std. Dev.=35.15, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8845, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

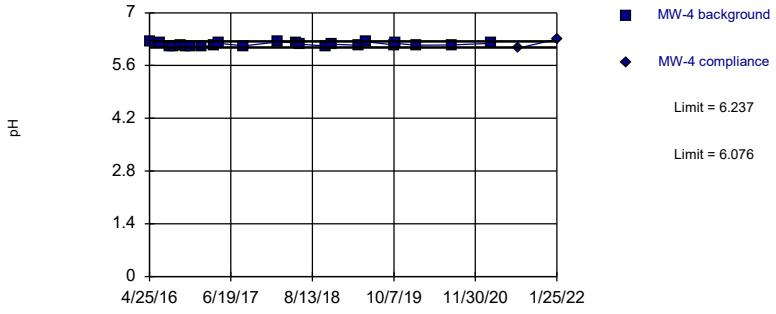
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.157, Std. Dev.=0.04323, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9401, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

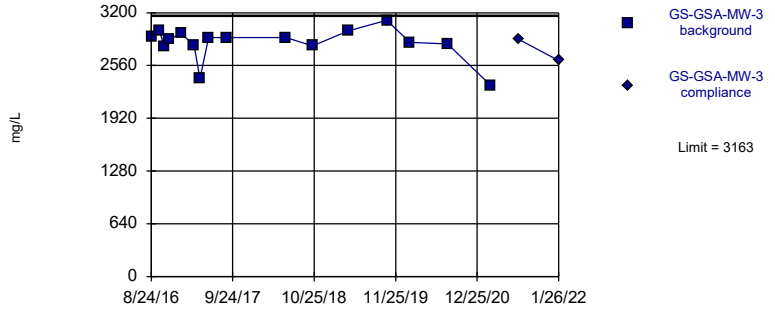
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=2.3e10, Std. Dev.=4.4e9, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8468, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

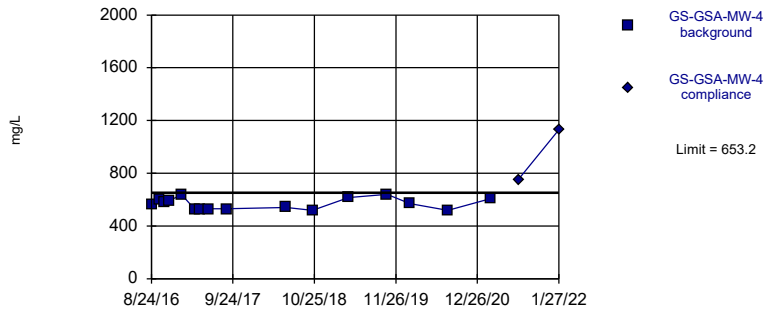
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=569.6, Std. Dev.=42.43, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8989, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

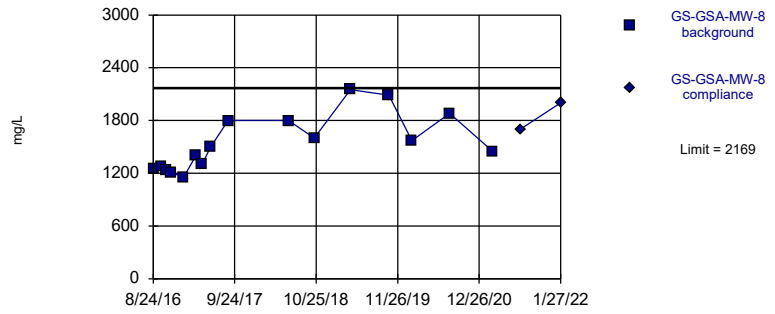
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1541, Std. Dev.=318.8, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9147, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

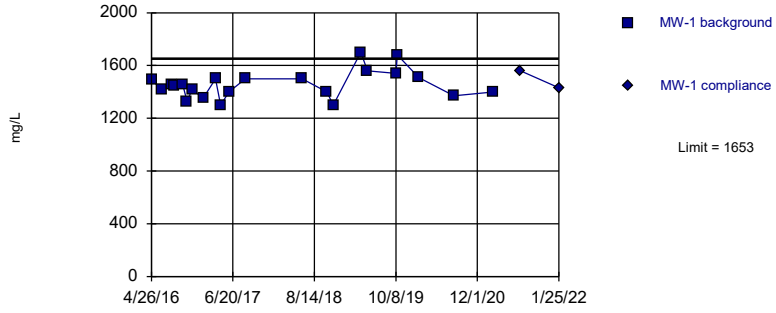
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1456, Std. Dev.=105.3, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9431, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

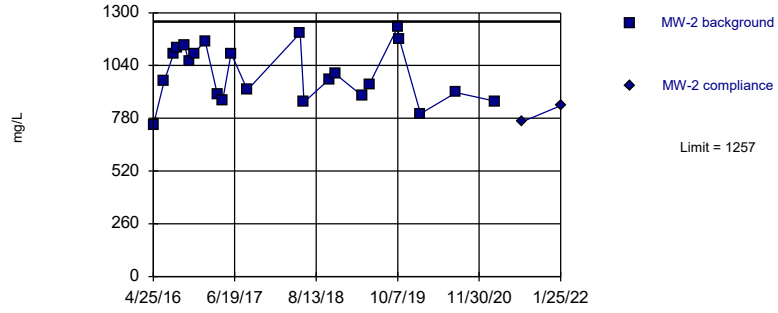
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1001, Std. Dev.=137.9, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9535, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

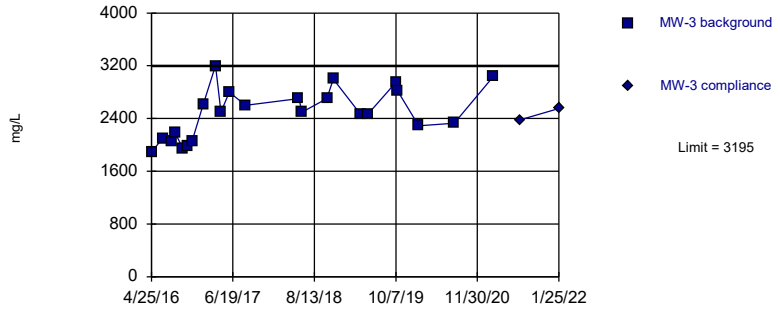
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2487, Std. Dev.=381.4, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.964, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

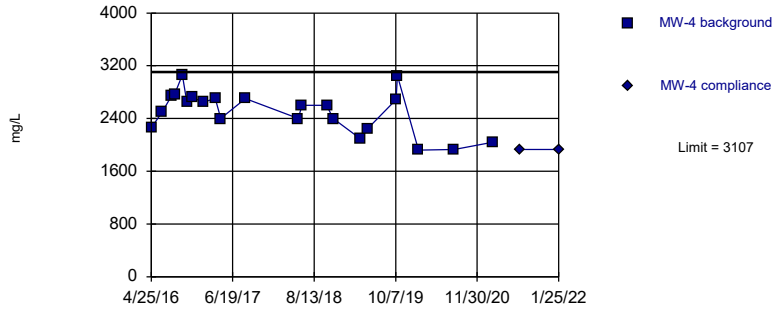
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2505, Std. Dev.=321.9, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

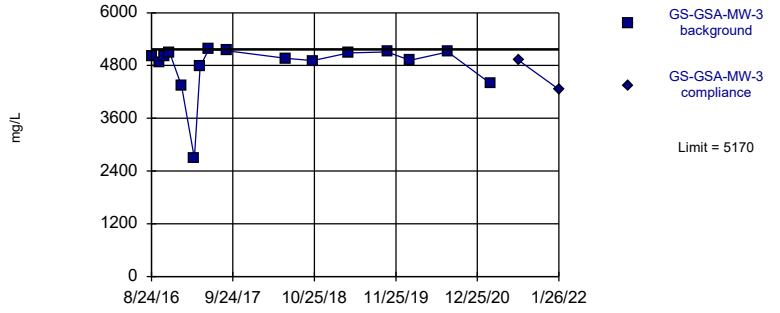
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell 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 16 background values. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

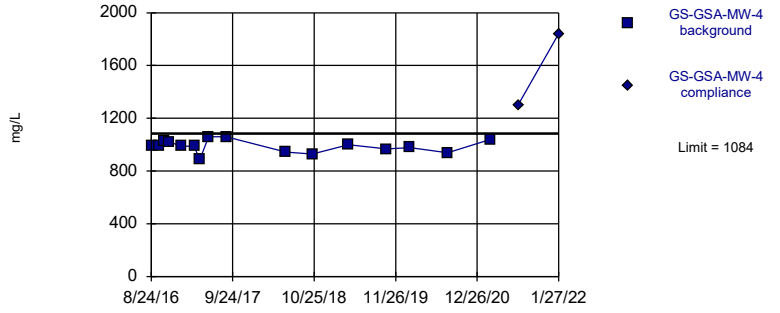
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=987.9, Std. Dev.=48.59, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9659, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

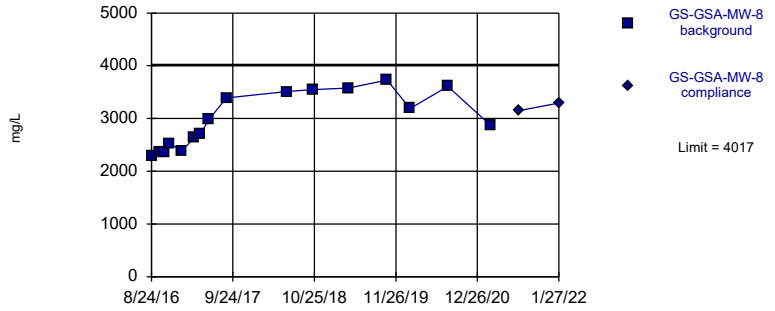
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2978, Std. Dev.=527.4, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8919, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

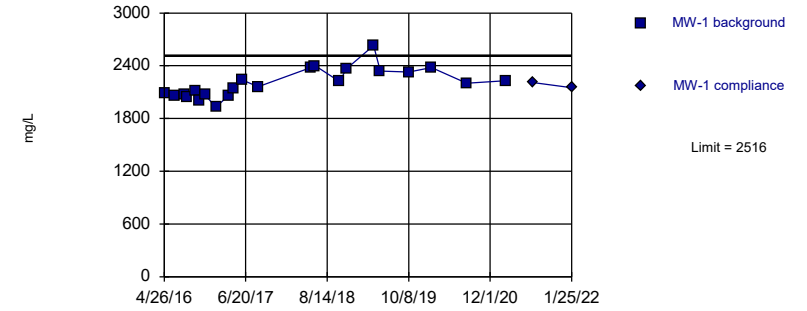
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2201, Std. Dev.=168.2, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9467, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

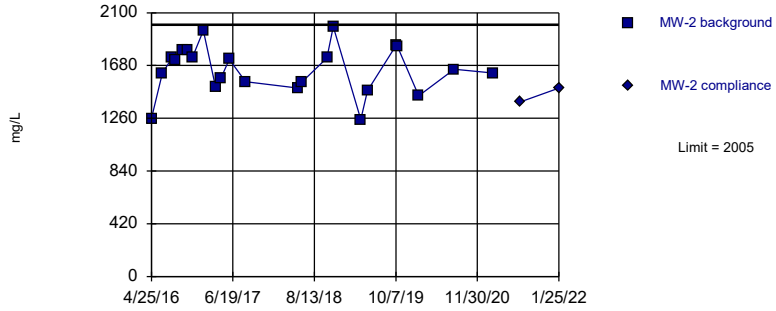
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1648, Std. Dev.=192.4, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.968, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

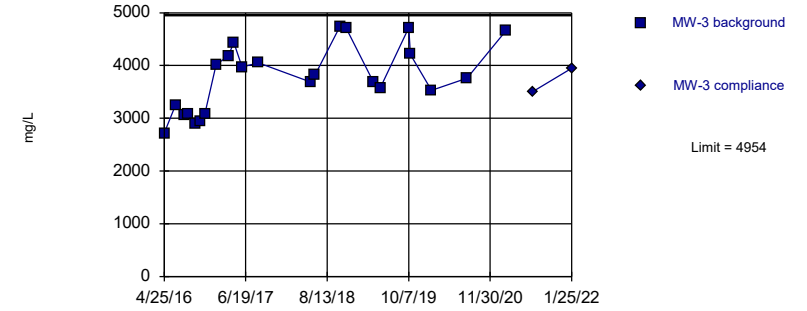
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3773, Std. Dev.=635.9, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9443, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

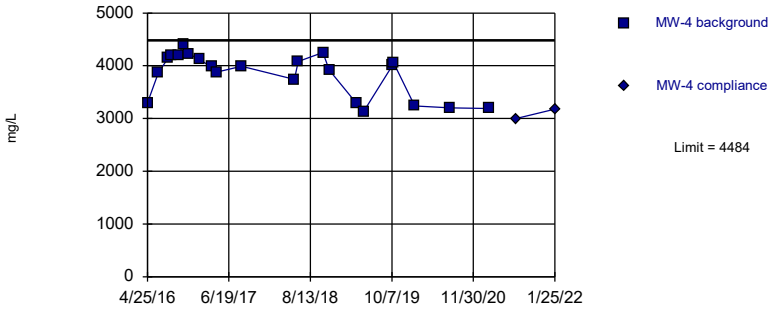
Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=5.8e10, Std. Dev.=1.7e10, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8912, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-3
8/24/2016	6.28	
10/3/2016	6.28	
10/26/2016	6.19	
11/21/2016	6.2	
1/17/2017	6.13	
3/20/2017	6.17	
4/17/2017	5.6	
5/30/2017	6.07	
8/24/2017	5.99	
2/13/2018	5.88	
6/11/2018	5.91	
10/17/2018	5.88	
4/10/2019	5.83	
10/14/2019	6.04	
2/3/2020	5.98	
8/4/2020	6.09	
3/1/2021	5.82	
7/14/2021		5.93
1/26/2022		6.52

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4	GS-GSA-MW-4
8/24/2016	3.83 (E)	
10/3/2016	3.82 (E)	
10/26/2016	3.81 (E)	
11/21/2016	3.81	
1/17/2017	3.78	
3/21/2017	3.76	
4/17/2017	3.76	
5/30/2017	3.76	
8/24/2017	3.7	
2/13/2018	3.73	
6/11/2018	3.8	
10/17/2018	3.81	
4/10/2019	3.83	
10/14/2019	3.91	
2/4/2020	3.83	
8/5/2020	3.86	
3/3/2021	3.76	
7/14/2021		3.74
1/27/2022		3.73

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8
8/24/2016	6.78	
10/3/2016	6.71	
10/26/2016	6.65	
11/21/2016	6.7	
1/17/2017	6.25	
3/20/2017	7.04	
4/18/2017	6.99	
5/30/2017	6.98	
8/24/2017	6.89	
2/13/2018	6.85	
6/12/2018	6.83	
10/17/2018	6.81	
4/10/2019	6.71	
10/14/2019	6.88	
2/4/2020	6.85	
8/5/2020	6.76	
3/1/2021	6.48	
7/14/2021		6.88
1/27/2022		6.85

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-1	MW-1
4/26/2016	5.2	
6/20/2016	5.18	
8/8/2016	5.12	
10/3/2016	5.21	
10/26/2016	5.2	
11/21/2016	5.19	
1/17/2017	5.17	
3/22/2017	5.2	
4/18/2017	5.2	
5/30/2017	5.14	
8/23/2017	5.12	
2/13/2018	5.18	
5/22/2018	5.2	
6/12/2018	5.15	
10/17/2018	5.12	
11/19/2018	5.09	
4/10/2019	5.11	
5/14/2019	5.19	
10/8/2019	5.12	
10/16/2019	5.16	
2/3/2020	5	
8/3/2020	5.08	
2/22/2021	5.06	
7/12/2021		5.13
1/25/2022		5.11

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2	MW-2
4/25/2016	5.94	
6/20/2016	5.96	
8/8/2016	5.88	
10/3/2016	5.91	
10/26/2016	5.84	
11/21/2016	5.82	
1/17/2017	5.87	
3/22/2017	6.01	
4/18/2017	6.02	
5/31/2017	5.85	
8/23/2017	5.89	
2/13/2018	6.21	
5/22/2018	6.04	
6/12/2018	5.95	
10/17/2018	5.9	
11/19/2018	6.03	
4/10/2019	6.1	
5/14/2019	6.07	
10/8/2019	5.96	
10/16/2019	5.98	
2/3/2020	5.95	
8/3/2020	5.95	
2/22/2021	6.1	
7/12/2021		6.16
1/25/2022		6.22

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-3	MW-3
4/25/2016	5.56	
6/22/2016	5.57	
8/9/2016	5.67	
8/24/2016	5.63	
10/4/2016	5.69	
10/26/2016	5.56	
11/21/2016	5.42	
1/18/2017	5.11	
3/22/2017	4.52	
4/18/2017	5.84	
5/31/2017	4.56	
8/23/2017	4.77	
2/13/2018	5.67	
5/24/2018	5.19	
6/12/2018	4.79	
10/17/2018	4.75	
11/19/2018	3.77 (o)	
4/10/2019	5.54	
5/14/2019	5.71	
10/8/2019	4.98	
10/16/2019	4.51	
2/3/2020	5.54	
8/3/2020	5.06	
2/22/2021	5.59	
7/12/2021		5.86
1/25/2022		5.9

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4	MW-4
4/25/2016	6.22	
6/20/2016	6.21	
8/9/2016	6.11	
8/24/2016	6.11	
10/3/2016	6.13	
10/26/2016	6.12	
11/21/2016	6.09	
1/18/2017	6.09	
3/22/2017	6.15	
4/18/2017	6.19	
8/23/2017	6.12	
2/13/2018	6.22	
5/23/2018	6.21	
6/12/2018	6.16	
10/17/2018	6.12	
11/19/2018	6.16	
4/10/2019	6.14	
5/14/2019	6.23	
10/10/2019	6.15	
10/16/2019	6.19	
2/3/2020	6.14	
8/5/2020	6.15	
2/22/2021	6.19	
7/12/2021		6.06
1/25/2022		6.3

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-3
8/24/2016	2910	
10/3/2016	2980	
10/26/2016	2790	
11/21/2016	2880	
1/17/2017	2950	
3/20/2017	2800	
4/17/2017	2400	
5/30/2017	2900	
8/24/2017	2900	
6/11/2018	2900	
10/17/2018	2800	
4/10/2019	2980	
10/14/2019	3110	
2/3/2020	2840	
8/4/2020	2820	
3/1/2021	2320	
7/14/2021		2880
1/26/2022		2620

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4	GS-GSA-MW-4
8/24/2016	567	
10/3/2016	596	
10/26/2016	585	
11/21/2016	593	
1/17/2017	637	
3/21/2017	530	
4/17/2017	530	
5/30/2017	530	
8/24/2017	530	
6/11/2018	540	
10/17/2018	520	
4/10/2019	616	
10/14/2019	641	
2/4/2020	571	
8/5/2020	519	
3/3/2021	609	
7/14/2021		752
1/27/2022		1130

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8
8/24/2016	1250	
10/3/2016	1270	
10/26/2016	1240	
11/21/2016	1210	
1/17/2017	1150	
3/20/2017	1400	
4/18/2017	1300	
5/30/2017	1500	
8/24/2017	1800	
6/12/2018	1800	
10/17/2018	1600	
4/10/2019	2150	
10/14/2019	2090	
2/4/2020	1570	
8/5/2020	1880	
3/1/2021	1450	
7/14/2021		1700
1/27/2022		2000

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-1	MW-1
4/26/2016	1490	
6/20/2016	1420	
8/8/2016	1460	
8/24/2016	1450	
10/3/2016	1460	
10/26/2016	1330	
11/21/2016	1420	
1/17/2017	1350	
3/22/2017	1500	
4/18/2017	1300	
5/30/2017	1400	
8/23/2017	1500	
5/22/2018	2100 (o)	
6/12/2018	1500	
10/17/2018	1400	
11/19/2018	1300	
4/10/2019	1700	
5/14/2019	1560	
10/8/2019	1540	
10/16/2019	1680	
2/3/2020	1510	
8/3/2020	1370	
2/22/2021	1400	
7/12/2021		1560
1/25/2022		1430

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2	MW-2
4/25/2016	745	
6/20/2016	964	
8/8/2016	1100	
8/24/2016	1130	
10/3/2016	1140	
10/26/2016	1060	
11/21/2016	1100	
1/17/2017	1160	
3/22/2017	900	
4/18/2017	870	
5/31/2017	1100	
8/23/2017	920	
5/22/2018	1200	
6/12/2018	860	
10/17/2018	970	
11/19/2018	1000	
4/10/2019	889	
5/14/2019	948	
10/8/2019	1230	
10/16/2019	1170	
2/3/2020	803	
8/3/2020	907	
2/22/2021	864	
7/12/2021		763
1/25/2022		842

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-3	MW-3
4/25/2016	1890	
6/22/2016	2100	
8/9/2016	2050	
8/24/2016	2190	
10/4/2016	1950	
10/26/2016	1980	
11/21/2016	2060	
1/18/2017	2620	
3/22/2017	3200	
4/18/2017	2500	
5/31/2017	2800	
8/23/2017	2600	
5/24/2018	2700	
6/12/2018	2500	
10/17/2018	2700	
11/19/2018	3000	
4/10/2019	2460	
5/14/2019	2460	
10/8/2019	2950	
10/16/2019	2820	
2/3/2020	2290	
8/3/2020	2330	
2/22/2021	3040	
7/12/2021		2380
1/25/2022		2550

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4	MW-4
4/25/2016	2260	
6/20/2016	2500	
8/9/2016	2750	
8/24/2016	2770	
10/3/2016	3060	
10/26/2016	2650	
11/21/2016	2720	
1/18/2017	2650	
3/22/2017	2700	
4/18/2017	2400	
8/23/2017	2700	
5/23/2018	2400	
6/12/2018	2600	
10/17/2018	2600	
11/19/2018	2400	
4/10/2019	2090	
5/14/2019	2240	
10/10/2019	2690	
10/16/2019	3050	
2/3/2020	1920	
8/5/2020	1930	
2/22/2021	2040	
7/12/2021		1930
1/25/2022		1930

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-3
8/24/2016	5020	
10/3/2016	4880	
10/26/2016	5020	
11/21/2016	5090	
1/17/2017	4330	
3/20/2017	2690	
4/17/2017	4780	
5/30/2017	5170	
8/24/2017	5140	
6/11/2018	4960	
10/17/2018	4910	
4/10/2019	5090	
10/14/2019	5110	
2/3/2020	4920	
8/4/2020	5110	
3/1/2021	4390	
7/14/2021		4920
1/26/2022		4260

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4	GS-GSA-MW-4
8/24/2016	992	
10/3/2016	988	
10/26/2016	1030	
11/21/2016	1020	
1/17/2017	988	
3/21/2017	990	
4/17/2017	884	
5/30/2017	1060	
8/24/2017	1060	
6/11/2018	944	
10/17/2018	928	
4/10/2019	1000	
10/14/2019	967	
2/4/2020	978	
8/5/2020	938	
3/3/2021	1040	
7/14/2021		1300
1/27/2022		1840

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8
8/24/2016	2280	
10/3/2016	2370	
10/26/2016	2350	
11/21/2016	2530	
1/17/2017	2380	
3/20/2017	2630	
4/18/2017	2700	
5/30/2017	2980	
8/24/2017	3390	
6/12/2018	3510	
10/17/2018	3550	
4/10/2019	3580	
10/14/2019	3730	
2/4/2020	3190	
8/5/2020	3610	
3/1/2021	2870	
7/14/2021		3150
1/27/2022		3290

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-1	MW-1
4/26/2016	2080	
6/20/2016	2060	
8/8/2016	2070	
8/24/2016	2040	
10/3/2016	2110	
10/26/2016	2000	
11/21/2016	2070	
1/17/2017	1930	
3/22/2017	2060	
4/18/2017	2140	
5/30/2017	2240	
8/23/2017	2160	
5/22/2018	2380	
6/12/2018	2400	
10/17/2018	2220	
11/19/2018	2360	
4/10/2019	2630	
5/14/2019	2340	
10/8/2019	2330	
10/16/2019	3650 (o)	
2/3/2020	2380	
8/3/2020	2200	
2/22/2021	2230	
7/12/2021		2210
1/25/2022		2150

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2	MW-2
4/25/2016	1260	
6/20/2016	1620	
8/8/2016	1740	
8/24/2016	1720	
10/3/2016	1800	
10/26/2016	1800	
11/21/2016	1740	
1/17/2017	1960	
3/22/2017	1510	
4/18/2017	1580	
5/31/2017	1730	
8/23/2017	1550	
5/22/2018	1500	
6/12/2018	1550	
10/17/2018	1740	
11/19/2018	1990	
4/10/2019	1250	
5/14/2019	1480	
10/8/2019	1840	
10/16/2019	1830	
2/3/2020	1440	
8/3/2020	1650	
2/22/2021	1620	
7/12/2021		1390
1/25/2022		1500

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-3	MW-3
4/25/2016	2720	
6/22/2016	3250	
8/9/2016	3050	
8/24/2016	3080	
10/4/2016	2900	
10/26/2016	2940	
11/21/2016	3090	
1/18/2017	4020	
3/22/2017	4180	
4/18/2017	4440	
5/31/2017	3970	
8/23/2017	4050	
5/24/2018	3680	
6/12/2018	3820	
10/17/2018	4730	
11/19/2018	4710	
4/10/2019	3680	
5/14/2019	3580	
10/8/2019	4720	
10/16/2019	4210	
2/3/2020	3530	
8/3/2020	3760	
2/22/2021	4670	
7/12/2021		3510
1/25/2022		3950

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4	MW-4
4/25/2016	3300	
6/20/2016	3870	
8/9/2016	4140	
8/24/2016	4190	
10/3/2016	4190	
10/26/2016	4400	
11/21/2016	4230	
1/18/2017	4120	
3/22/2017	3980	
4/18/2017	3880	
8/23/2017	3990	
5/23/2018	3740	
6/12/2018	4080	
10/17/2018	4250	
11/19/2018	3920	
4/10/2019	3280	
5/14/2019	3130 (D)	
10/10/2019	4000	
10/16/2019	4060	
2/3/2020	3240	
8/5/2020	3200	
2/22/2021	3190	
7/12/2021		3000
1/25/2022		3180

FIGURE E.

Appendix III Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 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-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**

Appendix III Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 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-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	GS-GSA-MW-4	431	n/a	1/27/2022	181	No	99	n/a	n/a	0	n/a	n/a	0.0001981	NP Inter (normality) 1 of 2
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Fluoride (mg/L)	GS-GSA-MW-3	0.63	n/a	1/26/2022	0.447	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-4	0.63	n/a	1/27/2022	0.05ND	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-8	0.63	n/a	1/27/2022	0.179	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2

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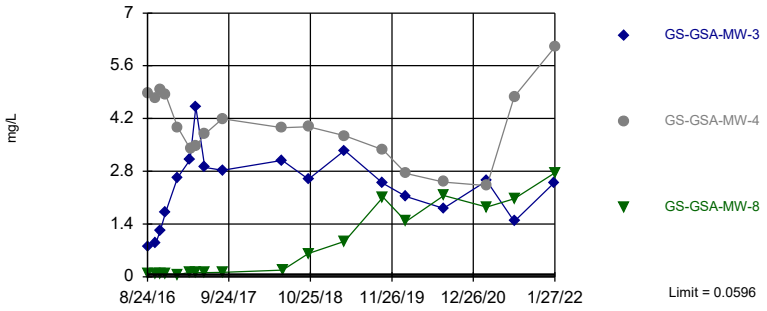
Exceeds Limit: GS-GSA-MW-3, GS-GSA-MW-4, GS-GSA-MW-8

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 98 background values. 21.43% NDs. Annual per-constituent alpha = 0.001215. Individual comparison alpha = 0.0002025 (1 of 2). Comparing 3 points to limit.

Constituent: Boron Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

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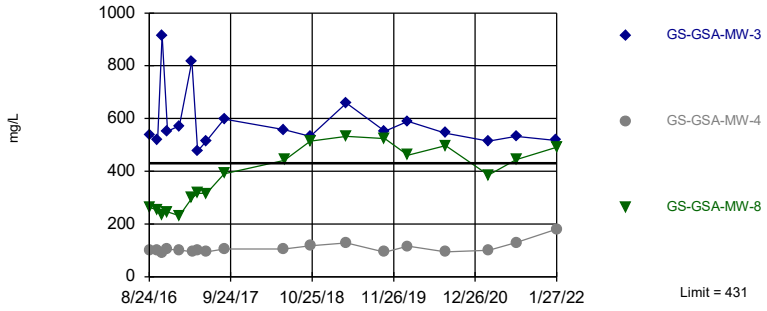
Exceeds Limit: GS-GSA-MW-3, GS-GSA-MW-8

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 99 background values. Annual per-constituent alpha = 0.001188. Individual comparison alpha = 0.0001981 (1 of 2). Comparing 3 points to limit.

Constituent: Calcium Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

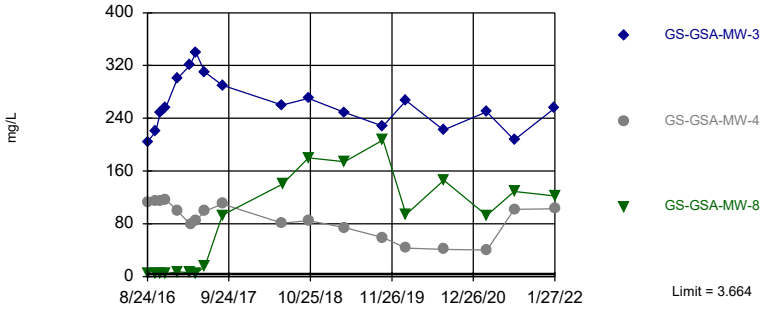
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limit: GS-GSA-MW-3, GS-GSA-MW-4, GS-GSA-MW-8

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=1.291, Std. Dev.=0.15, n=99, 3.03% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9683, critical = 0.967. Kappa = 1.673 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Chloride Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

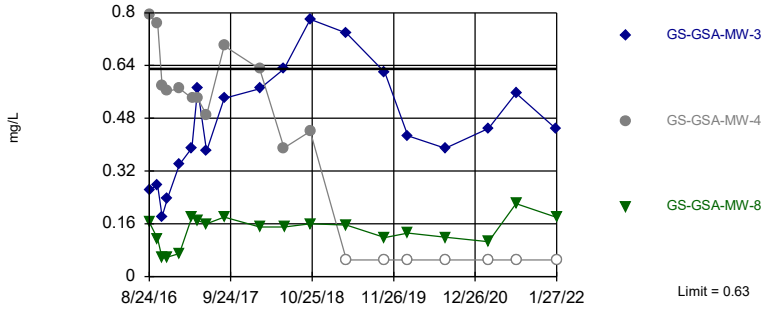
Sanitas™ v.9.6.33 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 103 background values. 0.9709% NDs. Annual per-constituent alpha = 0.001109. Individual comparison alpha = 0.0001849 (1 of 2). Comparing 3 points to limit.

Constituent: Fluoride Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2 (bg)	MW-4 (bg)	MW-3 (bg)	MW-1 (bg)	GS-GSA-MW-4	GS-GSA-MW-3	GS-GSA-MW-8
4/25/2016	0.0241 (J)	0.0414 (J)	0.028 (J)				
4/26/2016				0.0231 (J)			
6/20/2016	0.0284 (J)	0.0434 (J)		0.0227 (J)			
6/22/2016			0.0433 (J)				
8/8/2016	0.034 (J)			0.0278 (J)			
8/9/2016		0.0453 (J)	0.0429 (J)				
8/24/2016	0.0316 (J)	0.0451 (J)	0.0431 (J)	0.0247 (J)	4.88	0.799	0.0898 (J)
10/3/2016	0.0367 (J)	0.0511 (J)		0.0307 (J)	4.75	0.889	0.0821 (J)
10/4/2016			0.04 (J)				
10/26/2016	0.0331 (J)	0.0507 (J)	0.0375 (J)	0.0241 (J)	4.96	1.23	0.0889 (J)
11/21/2016	0.035 (J)	0.0458 (J)	0.0406 (J)	0.0202 (J)	4.82	1.72	0.0788 (J)
1/17/2017	0.0259 (J)			0.0201 (J)	3.97	2.63	0.0607 (J)
1/18/2017		0.0445 (J)	0.0548 (J)				
3/20/2017						3.11	0.114
3/21/2017					3.39		
3/22/2017	0.0243 (J)	0.0432 (J)	0.0344 (J)	0.0224 (J)			
4/17/2017					3.46	4.51	
4/18/2017	0.0206 (J)	0.0409 (J)	<0.1015	<0.1015			0.108
5/30/2017				<0.1015	3.79	2.9	0.105
5/31/2017	0.0234 (J)		0.0454 (J)				
8/23/2017	0.0267 (J)	0.042 (J)	0.0425 (J)	0.0253 (J)			
8/24/2017					4.19	2.83	0.12
5/22/2018	0.0251 (J)			0.0224 (J)			
5/23/2018		0.0433 (J)					
5/24/2018			0.0339 (J)				
6/11/2018					3.96	3.09	
6/12/2018	0.0275 (J)	0.0478 (J)	0.0371 (J)	0.0214 (J)			0.181
10/17/2018	0.0321 (J)	0.0468 (J)	0.0596 (J)	0.0216 (J)	3.98	2.59	0.616
11/19/2018	0.0324 (J)	0.0526 (J)	0.0514 (J)	0.0237 (J)			
4/10/2019	<0.1015	0.0438 (J)	<0.1015	0.0304 (J)	3.74	3.35	0.944
5/14/2019	<0.1015	<0.203 (o)	<0.1015	<0.1015			
10/8/2019	0.0371 (J)		0.0537 (J)	<0.1015			
10/10/2019		0.0487 (J)					
10/14/2019					3.37	2.48	2.11
10/16/2019	0.0419 (J)	0.0505 (J)	0.05 (J)	0.0385 (J)			
2/3/2020	<0.1015	0.0433 (J)	<0.1015	<0.1015		2.13	
2/4/2020					2.74		1.47
8/3/2020	0.0317 (J)		0.0424 (J)	<0.1015			
8/4/2020						1.82	
8/5/2020		0.0459 (J)			2.51		2.16
2/22/2021	<0.1015	0.0397 (J)	<0.1015	0.0307 (J)			
3/1/2021						2.55	1.85
3/3/2021					2.42		
7/12/2021	<0.1015	0.0411 (J)	<0.1015	<0.1015			
7/14/2021					4.78	1.47	2.07
1/25/2022	<0.1015	0.0408 (J)	<0.1015	<0.1015			
1/26/2022						2.5	
1/27/2022					6.1		2.76

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4 (bg)	MW-3 (bg)	MW-2 (bg)	MW-1 (bg)	GS-GSA-MW-3	GS-GSA-MW-8	GS-GSA-MW-4
4/25/2016	261	224	123				
4/26/2016				147			
6/20/2016	295		168	152			
6/22/2016		266					
8/8/2016			180	150			
8/9/2016	318	260					
8/24/2016	319	274	180	142	539	263	102
10/3/2016	293		184	139	519.7	253	98.4
10/4/2016		243					
10/26/2016	311	254	171	133	916	235	88.7
11/21/2016	320	263	179	144	552	246	104
1/17/2017			188	131	572	231	102
1/18/2017	417	431					
3/20/2017					817	298	
3/21/2017							94.7
3/22/2017	292	318	155	141			
4/17/2017					476		97.9
4/18/2017	302	296	156	149		317	
5/30/2017				140	515	316	93.9
5/31/2017		306	151				
8/23/2017	297	298	155	152			
8/24/2017					598	391	105
5/22/2018			172	166			
5/23/2018	296						
5/24/2018		297					
6/11/2018					558		105
6/12/2018	355	318	179	203		442	
10/17/2018	342	392	200	171	533	514	117
11/19/2018	289	387	221	154			
4/10/2019	356	348	200	243	659	533	129
5/14/2019	254	254	168	167			
10/8/2019		371	190	157			
10/10/2019	302						
10/14/2019					552	524	93.5
10/16/2019	356	346	194	157			
2/3/2020	265	276	172	172	589		
2/4/2020						461	116
8/3/2020		285	172	148			
8/4/2020					545		
8/5/2020	281					497	94.7
2/22/2021	271	312	178	151			
3/1/2021					514	386	
3/3/2021							100
7/12/2021	242	252	159	149			
7/14/2021					533	444	130
1/25/2022	259	285	179	150			
1/26/2022					517		
1/27/2022						491	181

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4 (bg)	MW-3 (bg)	MW-2 (bg)	MW-1 (bg)	GS-GSA-MW-3	GS-GSA-MW-8	GS-GSA-MW-4
4/25/2016	1.53	1.32	1.9				
4/26/2016				1.94			
6/20/2016	1.85		3.43	2.09			
6/22/2016		1.46					
8/8/2016			3.31	2.18			
8/9/2016	1.95	1.35					
8/24/2016	2.07	1.47	3.23	2.22	204	4.03	112
10/3/2016	2.02		3.21	2.34	220	3.87	115
10/4/2016		1.59					
10/26/2016	2.07	1.27	3.35	2.34	249	4.08	115
11/21/2016	2.39	1.38	3.34	2.5	256	4.39	117
1/17/2017			3.58	2.68	301	7.22	99.3
1/18/2017	1.9	1.34					
3/20/2017					320	5.7	
3/21/2017							79
3/22/2017	1.5 (J)	2	3.4	3.7			
4/17/2017					340		85
4/18/2017	1.6 (J)	2.2	2.6	2.4		4.7	
5/30/2017				2.6	310	15	99
5/31/2017		1.5 (J)	4.4				
8/23/2017	2.3	1.8 (J)	4.4	2.7			
8/24/2017					290	93	110
5/22/2018			3.2	2.3			
5/23/2018	2						
5/24/2018		1.6 (J)					
6/11/2018					260		81
6/12/2018	1.7 (J)	1.4 (J)	3.7	2.3		140	
10/17/2018	1.5 (J)	<2	4.6	1.7 (J)	270	180	85
11/19/2018	<2	<2	3	1.7 (J)			
4/10/2019	1.88	2.25	1.76	2.36	249	174	74.3
5/14/2019	1.82	2.28	2.98	2.28			
10/8/2019		1.36	4.26	2.31			
10/10/2019	1.93						
10/14/2019					228	207	59.1
10/16/2019	1.92	1.4	4.04	2.42			
2/3/2020	1.72	2.12	2.48	2.07	267		
2/4/2020						94.1	43.2
8/3/2020		1.17	4.03	2.05			
8/4/2020					222		
8/5/2020	1.57					146	41
2/22/2021	1.52	2.22	1.72	2.16			
3/1/2021					250	92.5	
3/3/2021							40.3
7/12/2021	1.56	2.13	2.36	2.19			
7/14/2021					207	129	102
1/25/2022	1.54	2.12	2.14	2.09			
1/26/2022					255		
1/27/2022						122	103

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4 (bg)	MW-3 (bg)	MW-2 (bg)	MW-1 (bg)	GS-GSA-MW-8	GS-GSA-MW-4	GS-GSA-MW-3
4/25/2016	0.372	0.243 (J)	0.149 (J)				
4/26/2016				0.146 (J)			
6/20/2016	0.361		0.148 (J)	0.148 (J)			
6/22/2016		0.269 (J)					
8/8/2016			0.134 (J)	0.137 (J)			
8/9/2016	0.326	0.363					
8/24/2016	0.329	0.346	0.129 (J)	0.133 (J)	0.165 (J)	0.793	0.264 (J)
10/3/2016	0.287 (J)		0.086 (J)	0.103 (J)	0.114 (J)	0.769	0.276 (J)
10/4/2016		0.266 (J)					
10/26/2016	0.194 (J)	0.266 (J)	0.027 (J)	0.05 (J)	0.056 (J)	0.578	0.182 (J)
11/21/2016	0.192 (J)	0.244 (J)	0.027 (J)	0.047 (J)	0.059 (J)	0.562	0.238 (J)
1/17/2017			0.066 (J)	0.09 (J)	0.07 (J)	0.571	0.34
1/18/2017	0.223 (J)	0.385					
3/20/2017					0.18		0.39
3/21/2017						0.54	
3/22/2017	0.32	0.41	0.13	0.12			
4/17/2017						0.54	0.57
4/18/2017	0.32	0.29	0.16	0.12	0.17		
5/30/2017				0.13	0.16	0.49	0.38
5/31/2017		0.37	0.13				
8/23/2017	0.38	0.55	0.16	0.16			
8/24/2017					0.18	0.7	0.54
2/13/2018	0.38	0.27	0.22	0.14	0.15	0.63	0.57
5/22/2018			0.17	0.16			
5/23/2018	0.38						
5/24/2018		0.6					
6/11/2018						0.39	0.63
6/12/2018	0.39	0.53	0.16	0.16	0.15		
10/17/2018	0.39	0.63	0.16	0.18	0.16	0.44	0.78
11/19/2018	0.36	0.31	0.18	0.15			
4/10/2019	0.384	0.273	0.262	0.102	0.156	<0.1	0.738
5/14/2019	0.335	0.281	0.17	0.119			
10/8/2019		0.225	0.164	0.0924 (J)			
10/10/2019	0.304						
10/14/2019					0.118	<0.1	0.619
10/16/2019	0.302	0.106	0.114	0.0756 (J)			
2/3/2020	0.37	0.256	0.182	0.0982 (J)			0.427
2/4/2020					0.132	<0.1	
8/3/2020		0.0766 (J)	0.122	<0.1			
8/4/2020							0.389
8/5/2020	0.359				0.119	<0.1	
2/22/2021	0.357	0.246	0.209	0.082 (J)			
3/1/2021					0.106		0.449
3/3/2021						<0.1	
7/12/2021	0.35	0.287	0.196	0.125			
7/14/2021					0.221	<0.1	0.556
1/25/2022	0.364	0.325	0.204	0.101			
1/26/2022							0.447
1/27/2022					0.179	<0.1	

FIGURE F.

Appendix III Trend Test Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test Summary - All Results

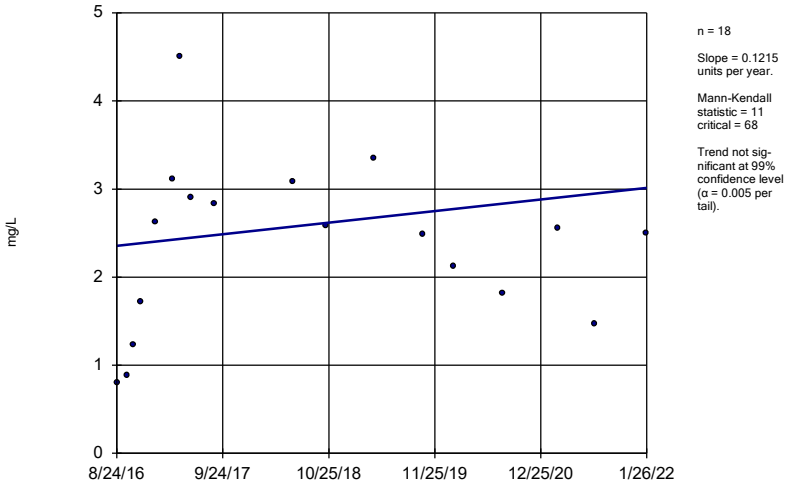
Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-GSA-MW-3	0.1215	11	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-GSA-MW-4	-0.3832	-53	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-1 (bg)	0.003819	110	111	No	25	32	n/a	n/a	0.01	NP
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-3 (bg)	0.002231	87	111	No	25	28	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003942	-28	-98	No	23	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-GSA-MW-3	-6.045	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-1 (bg)	2.531	86	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	2.037	42	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	10.56	65	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-4 (bg)	-6.803	-60	-105	No	24	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-GSA-MW-3	-6.058	-18	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-1 (bg)	-0.02423	-34	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.09448	-35	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.09968	71	111	No	25	8	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.06727	-80	-105	No	24	4.167	n/a	n/a	0.01	NP
pH (pH)	GS-GSA-MW-3	-0.06414	-61	-74	No	19	0	n/a	n/a	0.01	NP
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	MW-3 (bg)	0	-1	-111	No	25	0	n/a	n/a	0.01	NP
pH (pH)	MW-4 (bg)	0.008156	45	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-GSA-MW-4	9.649	25	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-1 (bg)	14.12	44	105	No	24	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	-36.24	-65	-111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-3 (bg)	110.7	99	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	GS-GSA-MW-4	5.547	17	68	No	18	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	MW-2 (bg)	-28.02	-47	-111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	MW-3 (bg)	192.9	99	111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-3



n = 18

Slope = 0.1215 units per year.

Mann-Kendall statistic = 11 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

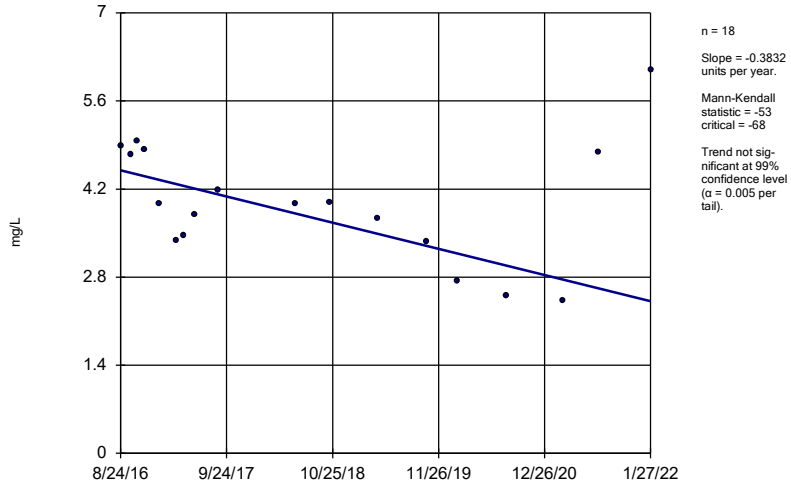
Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = -0.3832 units per year.

Mann-Kendall statistic = -53 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

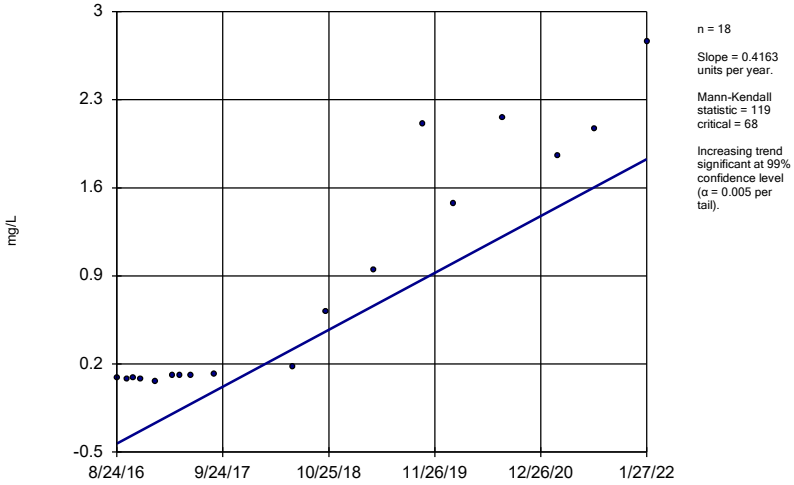
Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-8



n = 18

Slope = 0.4163 units per year.

Mann-Kendall statistic = 119 critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

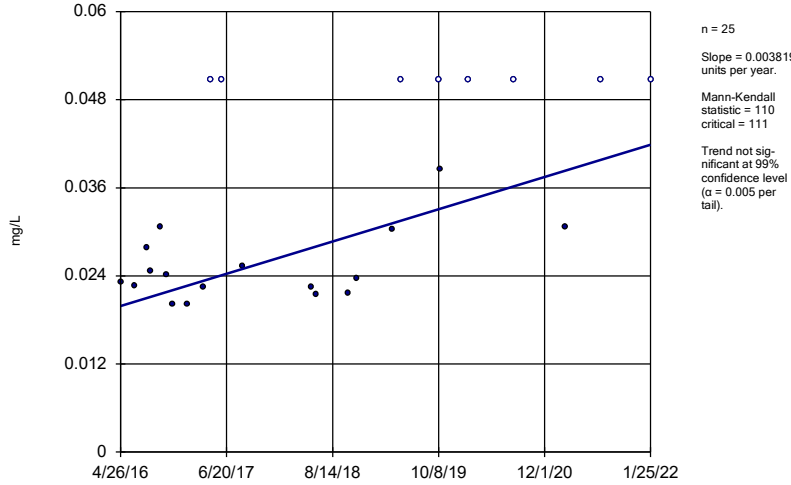
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = 0.003819 units per year.

Mann-Kendall statistic = 110 critical = 111

Trend not significant at 99% confidence level (α = 0.005 per tail).

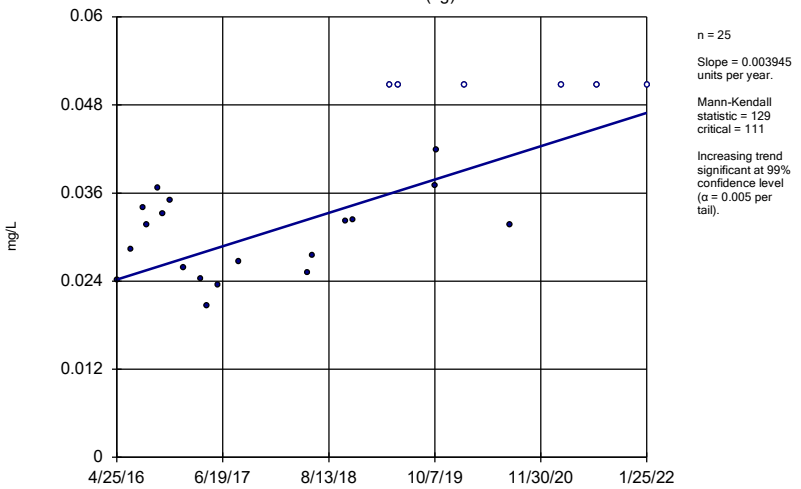
Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = 0.003945 units per year.

Mann-Kendall statistic = 129
critical = 111

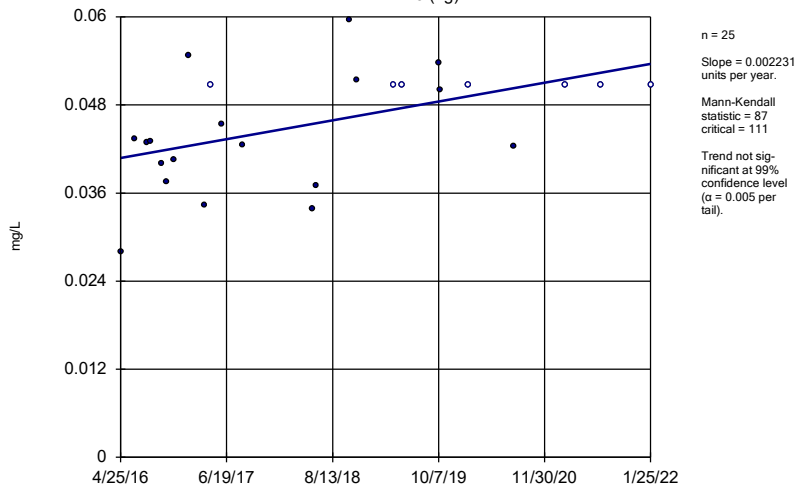
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 0.002231 units per year.

Mann-Kendall statistic = 87
critical = 111

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

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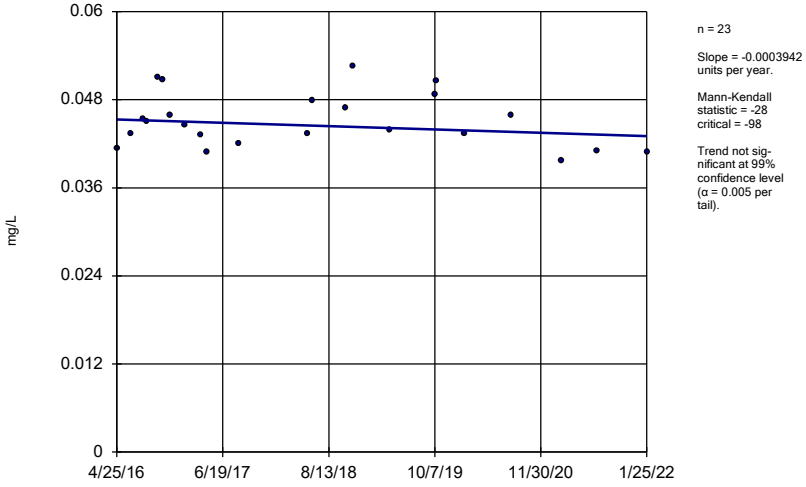
Sen's Slope Estimator

MW-4 (bg)



n = 23

Slope = -0.0003942 units per year.

Mann-Kendall statistic = -28
critical = -98

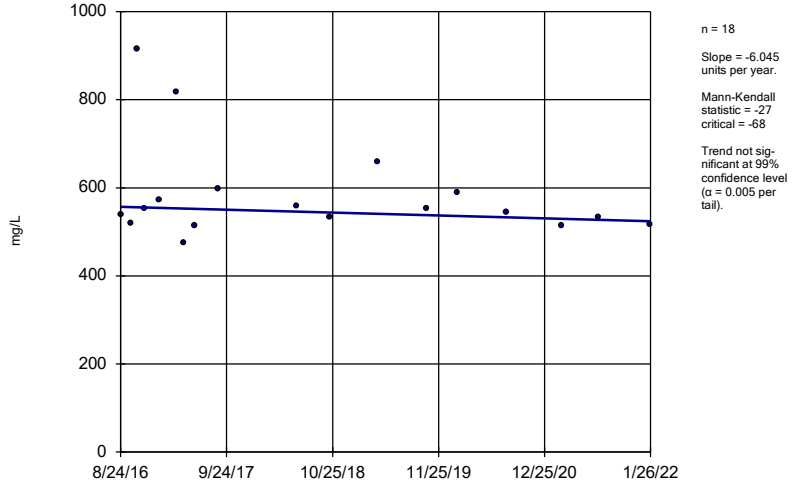
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-3



n = 18

Slope = -6.045 units per year.

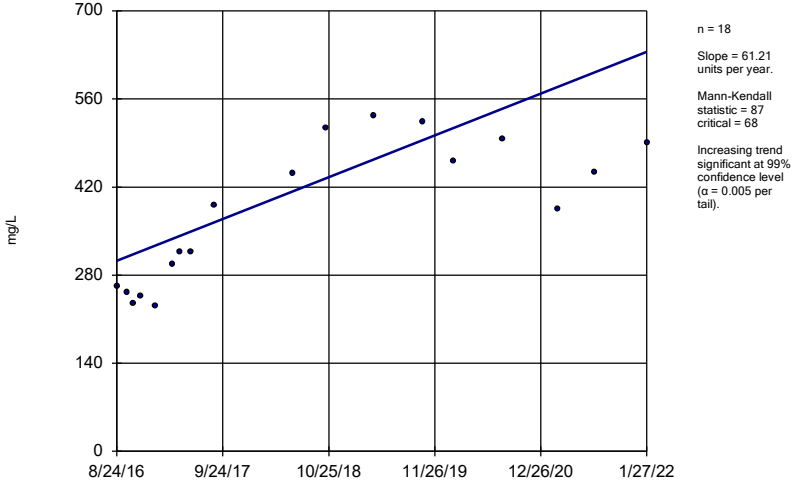
Mann-Kendall statistic = -27
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sen's Slope Estimator

GS-GSA-MW-8



n = 18

Slope = 61.21 units per year.

Mann-Kendall statistic = 87
critical = 68

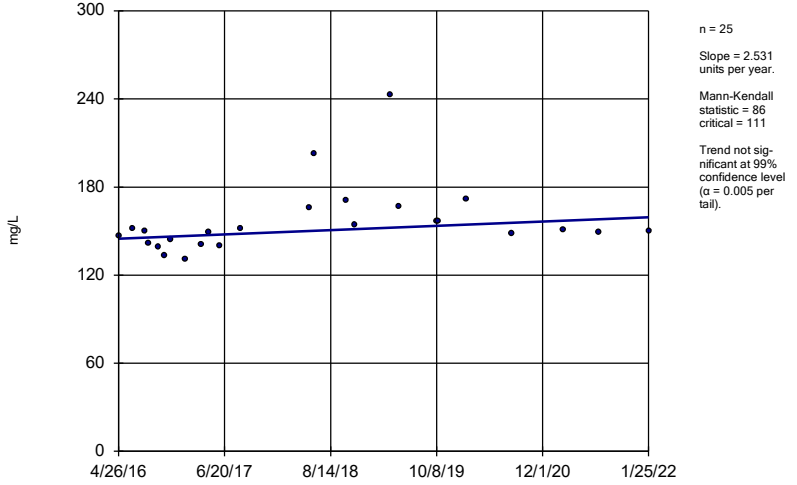
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = 2.531 units per year.

Mann-Kendall statistic = 86
critical = 111

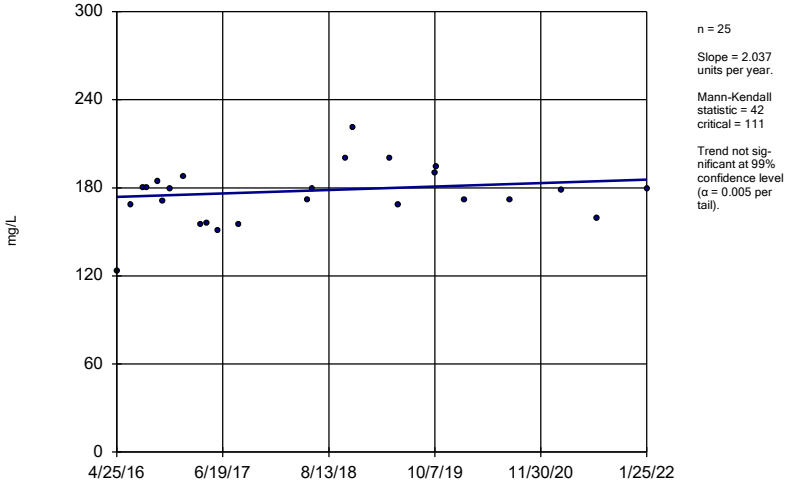
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = 2.037 units per year.

Mann-Kendall statistic = 42
critical = 111

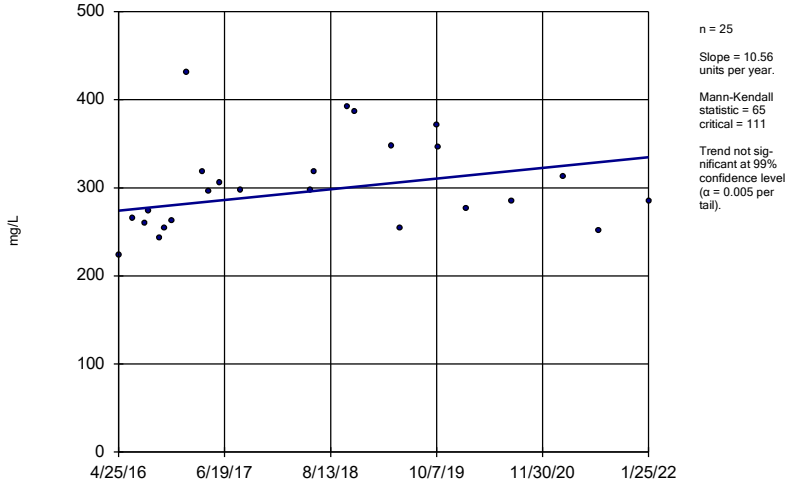
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 10.56 units per year.

Mann-Kendall statistic = 65
critical = 111

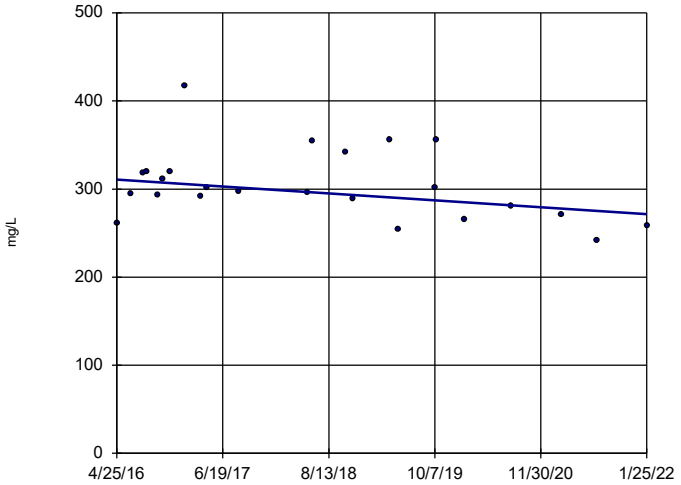
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -6.803 units per year.

Mann-Kendall statistic = -60
critical = -105

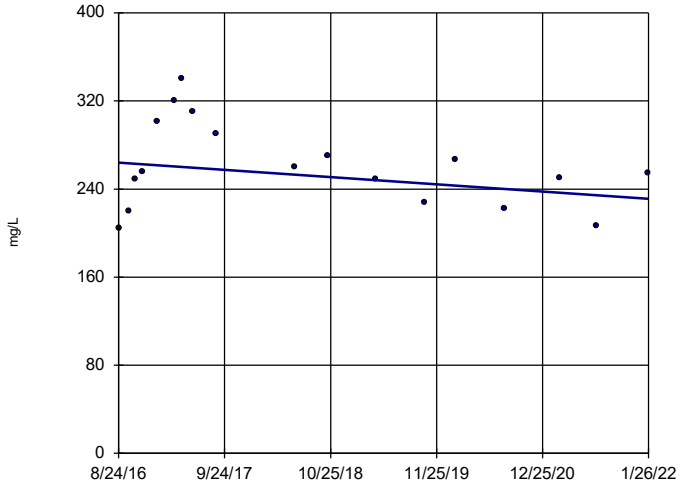
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-3



n = 18

Slope = -6.058 units per year.

Mann-Kendall statistic = -18
critical = -68

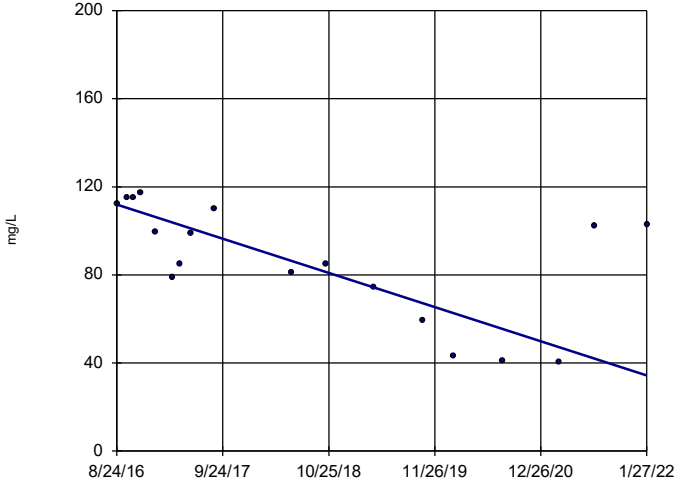
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = -14.3 units per year.

Mann-Kendall statistic = -75
critical = -68

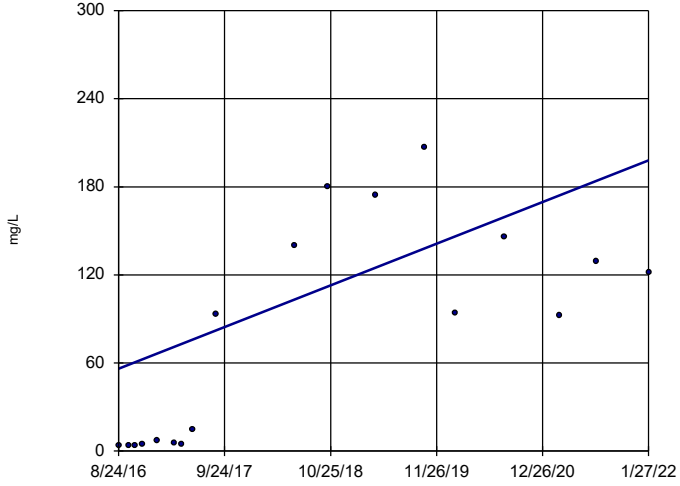
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-8



n = 18

Slope = 26.11 units per year.

Mann-Kendall statistic = 93
critical = 68

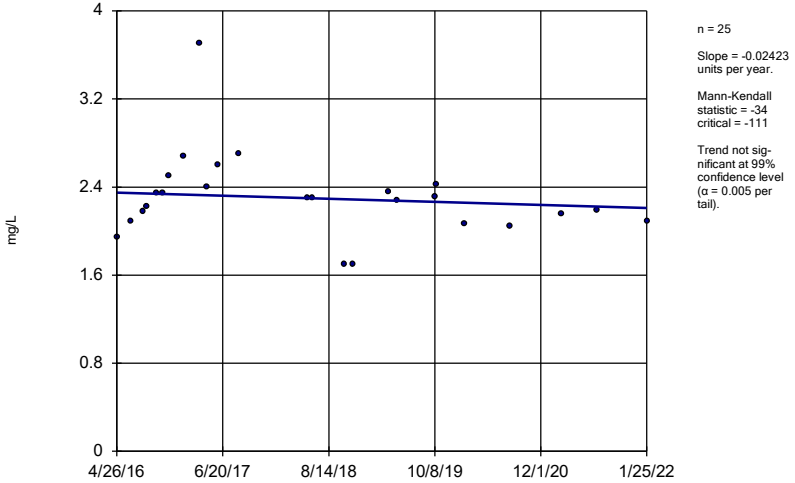
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = -0.02423 units per year.

Mann-Kendall statistic = -34
critical = -111

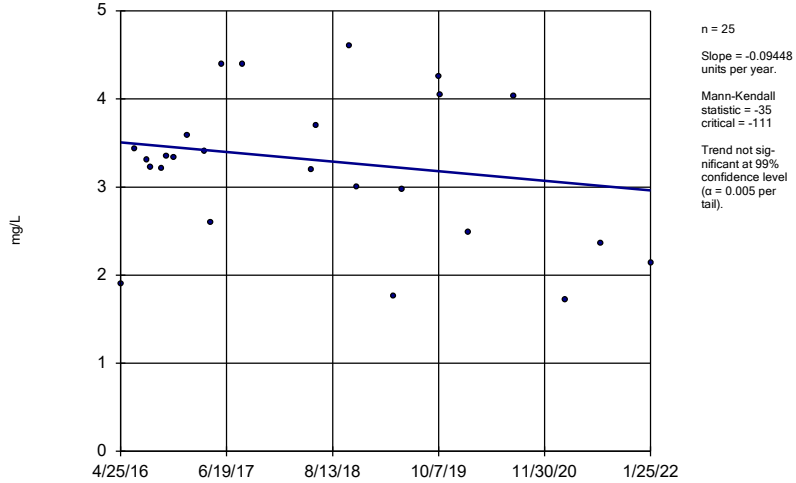
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = -0.09448 units per year.

Mann-Kendall statistic = -35
critical = -111

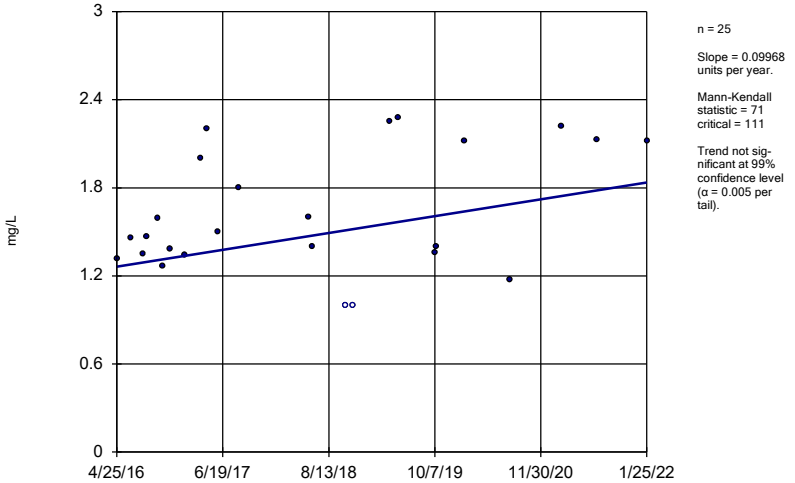
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 0.09968 units per year.

Mann-Kendall statistic = 71
critical = 111

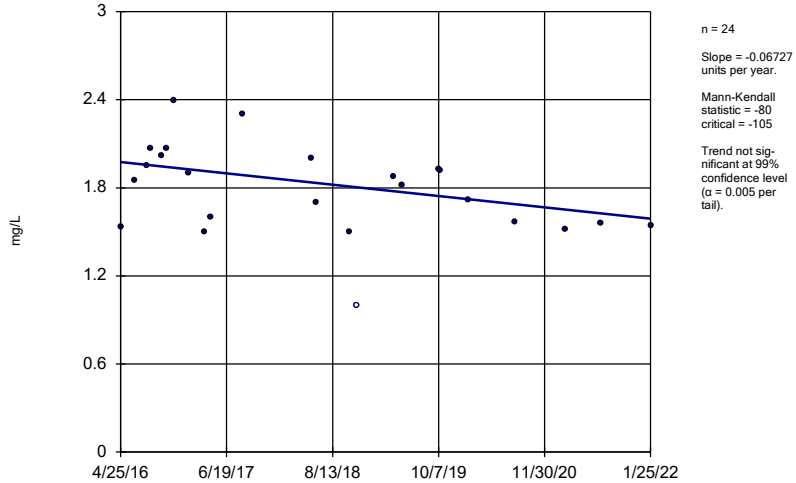
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -0.06727 units per year.

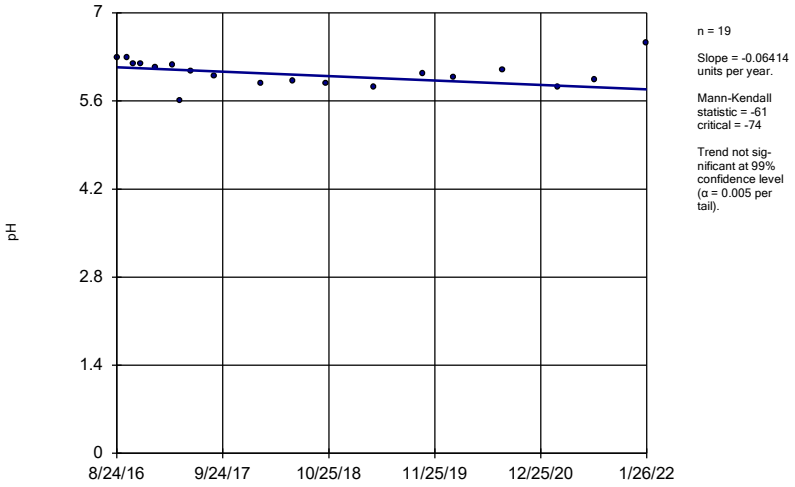
Mann-Kendall statistic = -80
critical = -105

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sen's Slope Estimator

GS-GSA-MW-3



n = 19

Slope = -0.06414 units per year.

Mann-Kendall statistic = -61
critical = -74

Trend not significant at 99% confidence level (α = 0.005 per tail).

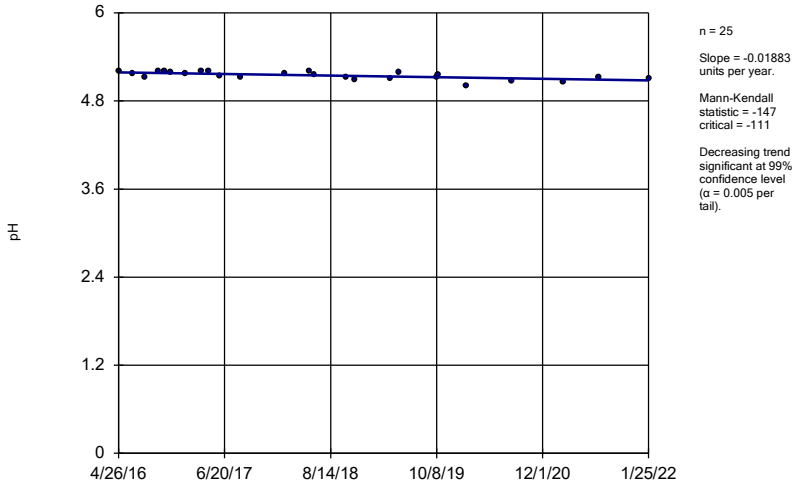
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = -0.01883 units per year.

Mann-Kendall statistic = -147
critical = -111

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

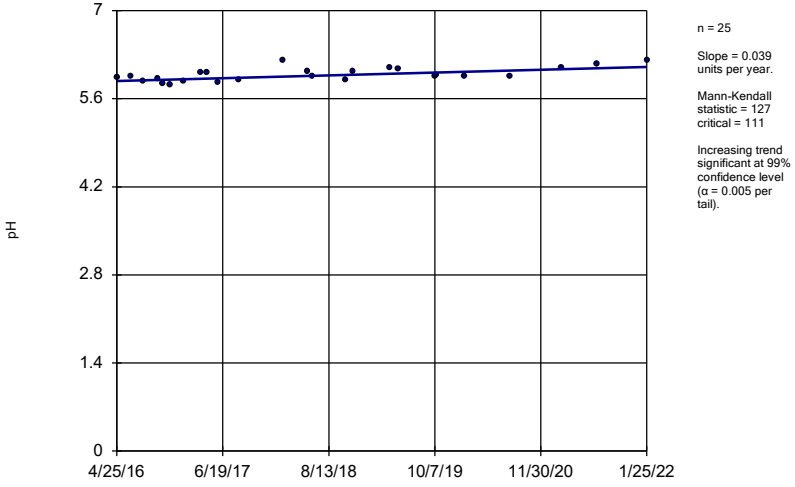
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = 0.039 units per year.

Mann-Kendall statistic = 127
critical = 111

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

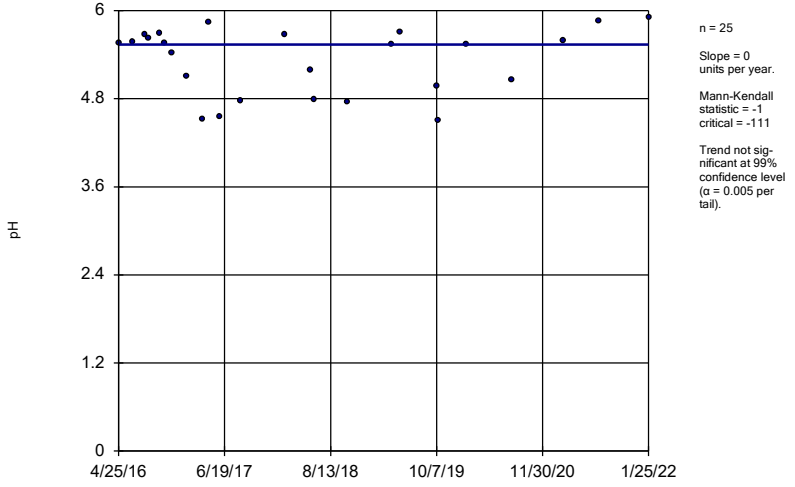
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -111

Trend not significant at 99% confidence level (α = 0.005 per tail).

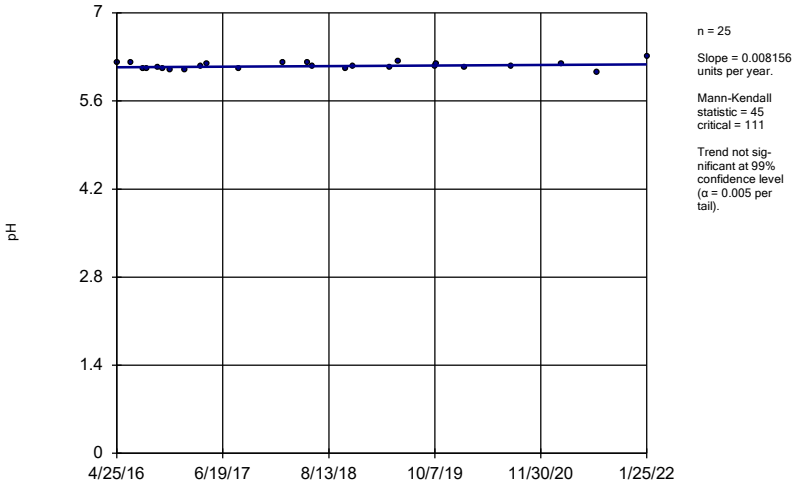
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 25

Slope = 0.008156 units per year.

Mann-Kendall statistic = 45
critical = 111

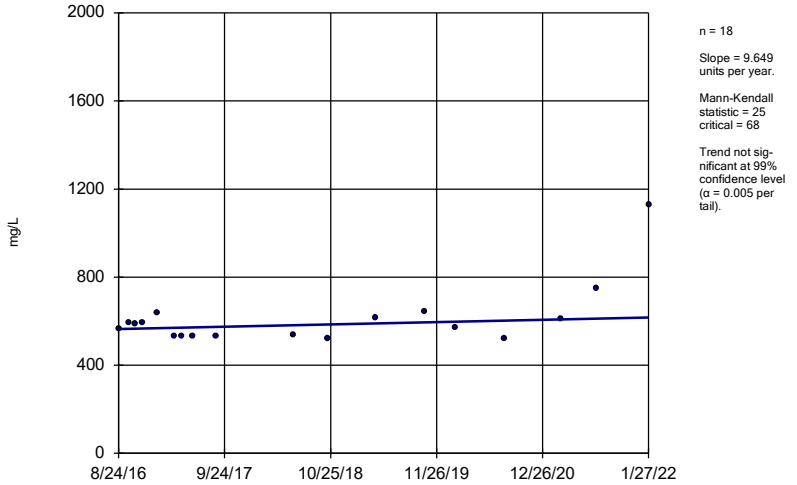
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = 9.649 units per year.

Mann-Kendall statistic = 25
critical = 68

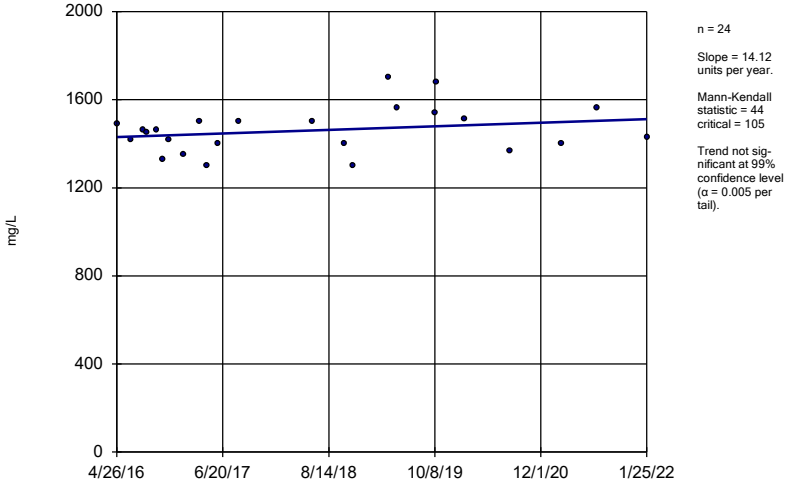
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 24

Slope = 14.12 units per year.

Mann-Kendall statistic = 44
critical = 105

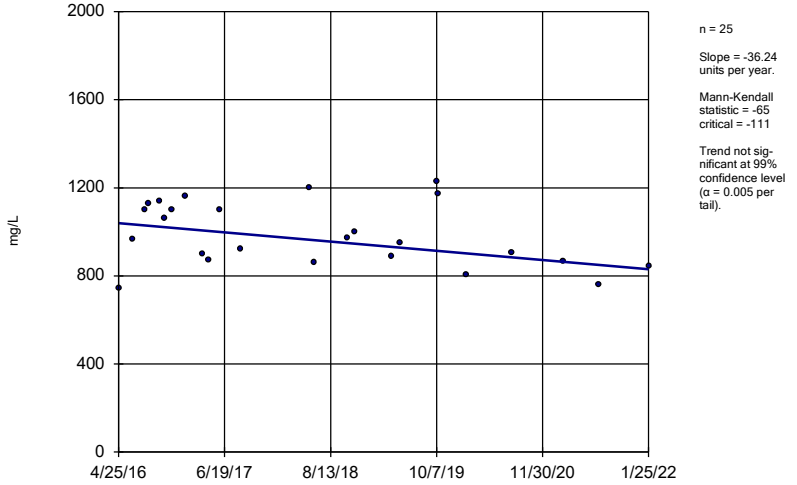
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = -36.24 units per year.

Mann-Kendall statistic = -65
critical = -111

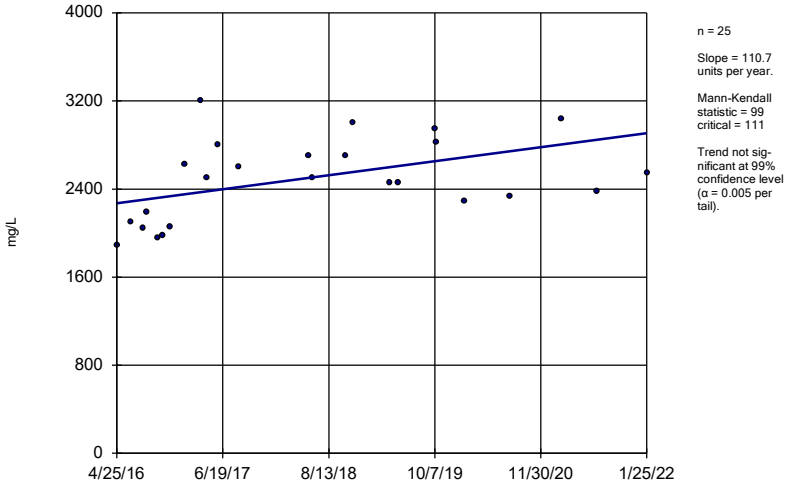
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 110.7 units per year.

Mann-Kendall statistic = 99
critical = 111

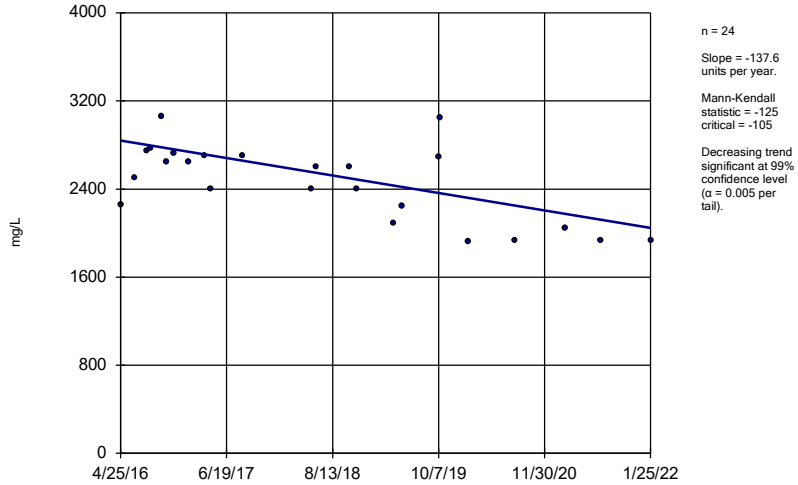
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -137.6 units per year.

Mann-Kendall statistic = -125
critical = -105

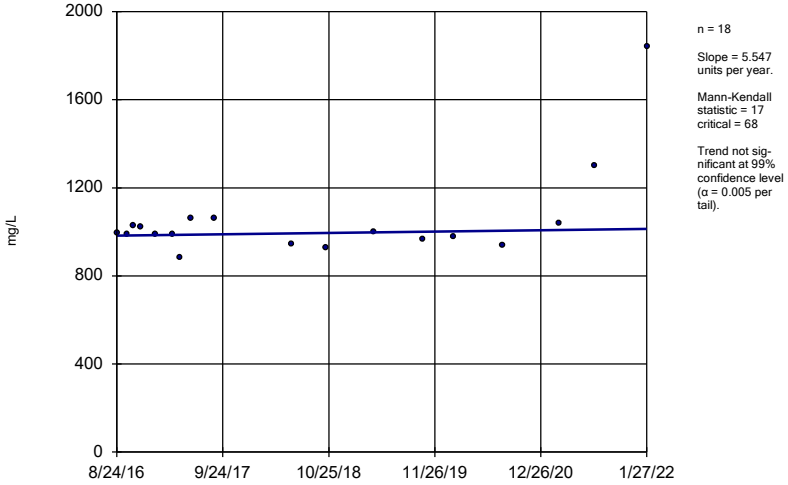
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = 5.547 units per year.

Mann-Kendall statistic = 17
critical = 68

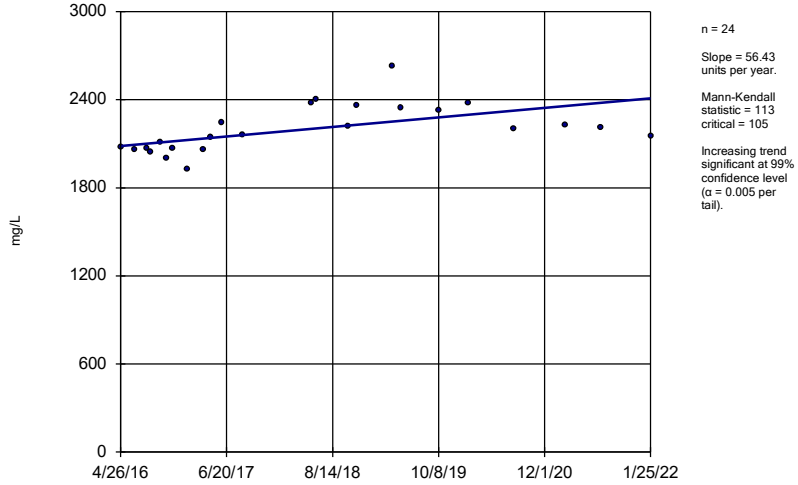
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 24

Slope = 56.43 units per year.

Mann-Kendall statistic = 113
critical = 105

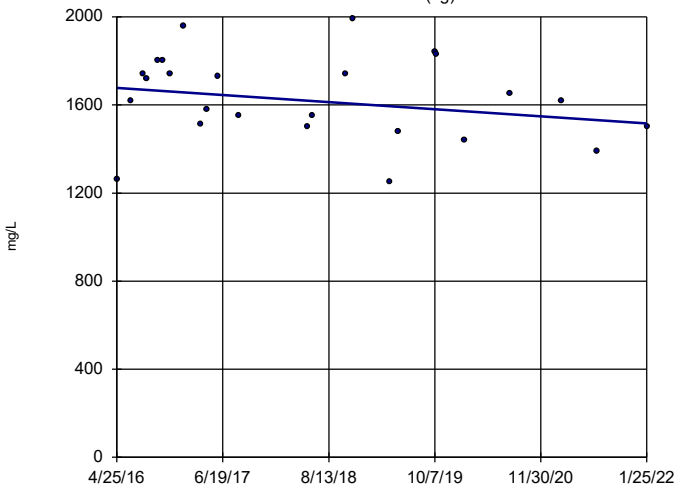
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = -28.02 units per year.

Mann-Kendall statistic = -47 critical = -111

Trend not significant at 99% confidence level (α = 0.005 per tail).

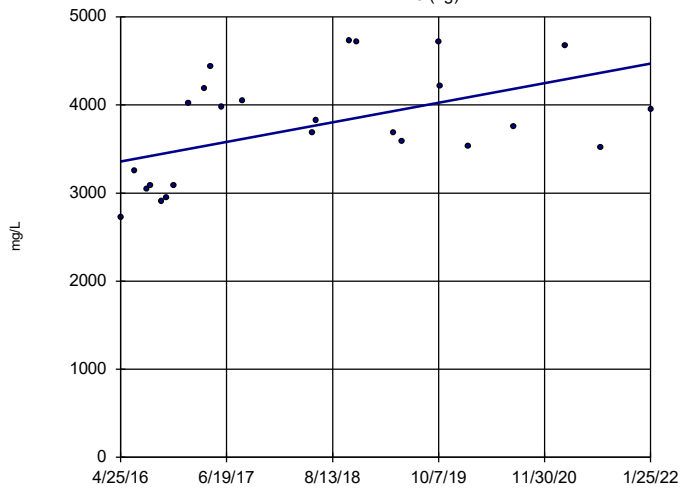
Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 192.9 units per year.

Mann-Kendall statistic = 99 critical = 111

Trend not significant at 99% confidence level (α = 0.005 per tail).

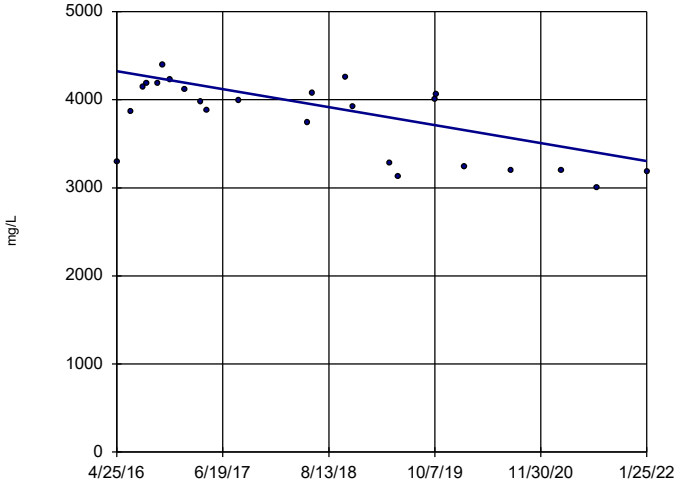
Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -177.4 units per year.

Mann-Kendall statistic = -123 critical = -105

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

FIGURE G.

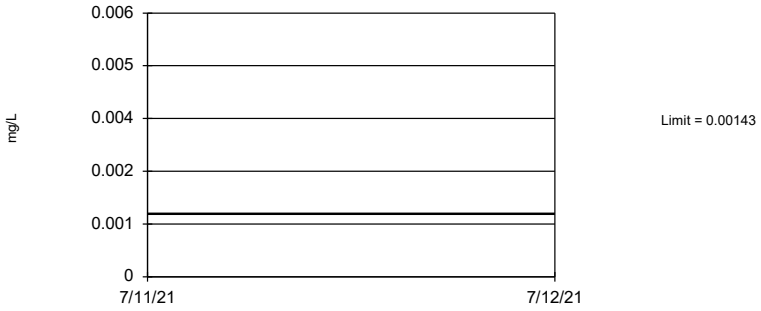
Upper Tolerance Limits Summary Table

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 11/16/2021, 4:56 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.00143	n/a	n/a	n/a	95	n/a	n/a	93.68	n/a	n/a	0.007651	NP Inter
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	95	n/a	n/a	83.16	n/a	n/a	0.007651	NP Inter
Barium (mg/L)	n/a	0.0166	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Beryllium (mg/L)	n/a	0.0121	n/a	n/a	n/a	93	n/a	n/a	83.87	n/a	n/a	0.008478	NP Inter
Cadmium (mg/L)	n/a	0.00652	n/a	n/a	n/a	94	n/a	n/a	44.68	n/a	n/a	0.008054	NP Inter
Chromium (mg/L)	n/a	0.0105	n/a	n/a	n/a	95	n/a	n/a	89.47	n/a	n/a	0.007651	NP Inter
Cobalt (mg/L)	n/a	0.64	n/a	n/a	n/a	93	n/a	n/a	24.73	n/a	n/a	0.008478	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	1.47	n/a	n/a	n/a	81	n/a	n/a	0	n/a	n/a	0.01569	NP Inter
Fluoride (mg/L)	n/a	0.63	n/a	n/a	n/a	99	n/a	n/a	1.01	n/a	n/a	0.006232	NP Inter
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	94	n/a	n/a	94.68	n/a	n/a	0.008054	NP Inter
Lithium (mg/L)	n/a	0.419	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	95	n/a	n/a	100	n/a	n/a	0.007651	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	95	n/a	n/a	97.89	n/a	n/a	0.007651	NP Inter
Selenium (mg/L)	n/a	0.0209	n/a	n/a	n/a	95	n/a	n/a	58.95	n/a	n/a	0.007651	NP Inter
Thallium (mg/L)	n/a	0.000226	n/a	n/a	n/a	95	n/a	n/a	96.84	n/a	n/a	0.007651	NP Inter

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 93.68% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Antimony Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

NP test selected by user. Limit is highest of 95 background values. 83.16% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

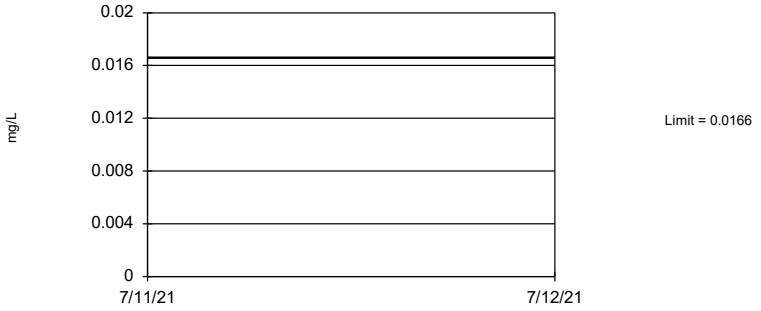
Constituent: Arsenic Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Barium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

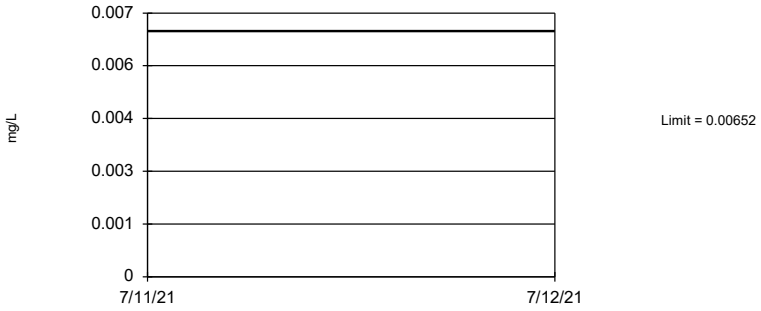
NP test selected by user. Limit is highest of 93 background values. 83.87% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008478.

Constituent: Beryllium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 94 background values. 44.68% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008054.

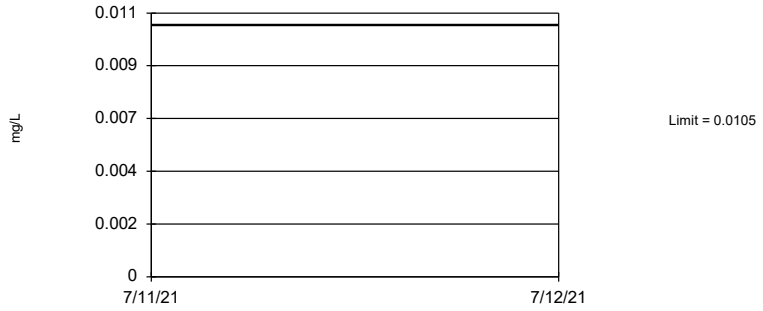
Constituent: Cadmium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 89.47% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

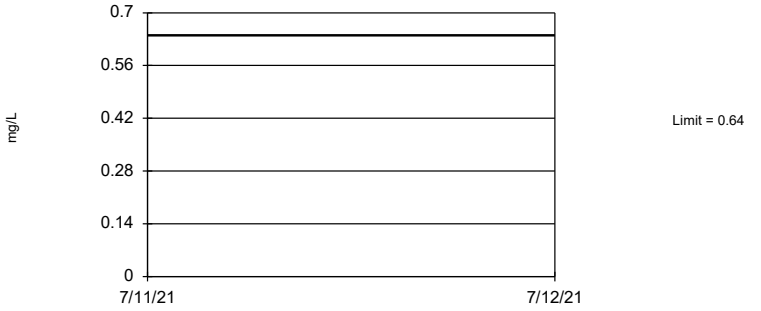
Constituent: Chromium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 93 background values. 24.73% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008478.

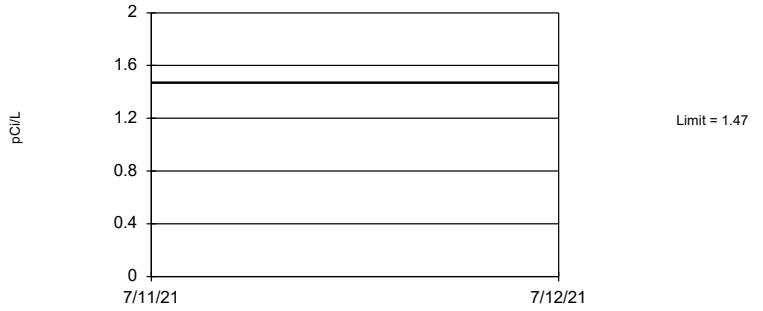
Constituent: Cobalt Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



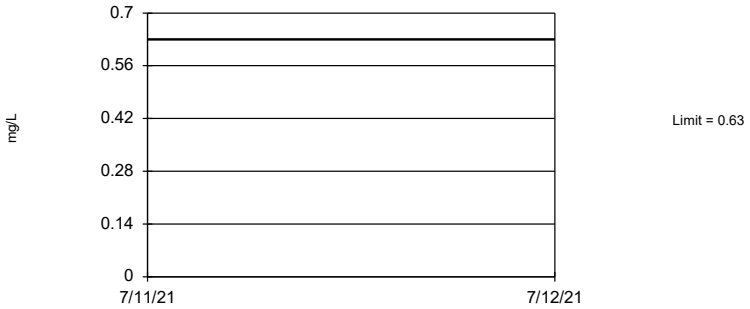
NP test selected by user. Limit is highest of 81 background values. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Combined Radium 226 + 228 Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



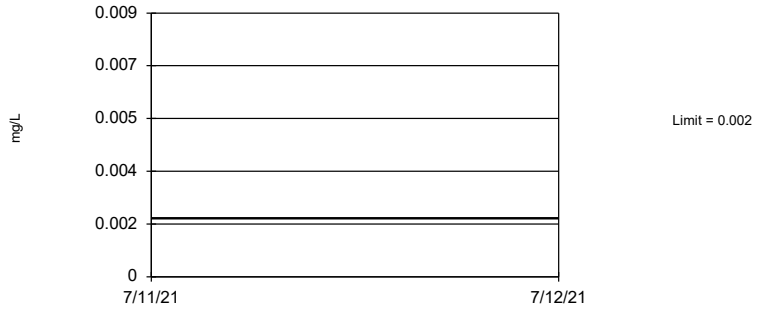
NP test selected by user. Limit is highest of 99 background values. 1.01% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.006232.

Constituent: Fluoride Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



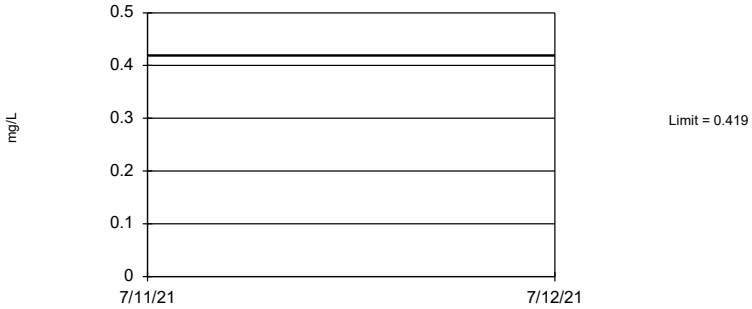
NP test selected by user. Limit is highest of 94 background values. 94.68% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008054.

Constituent: Lead Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



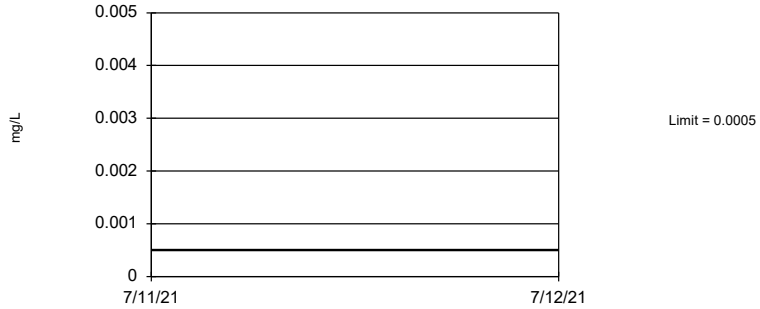
NP test selected by user. Limit is highest of 95 background values. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Lithium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



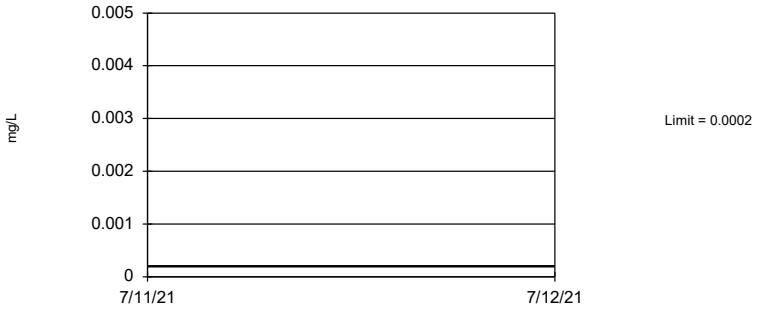
NP test selected by user. All background values were censored; limit is most recent reporting limit. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Mercury Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



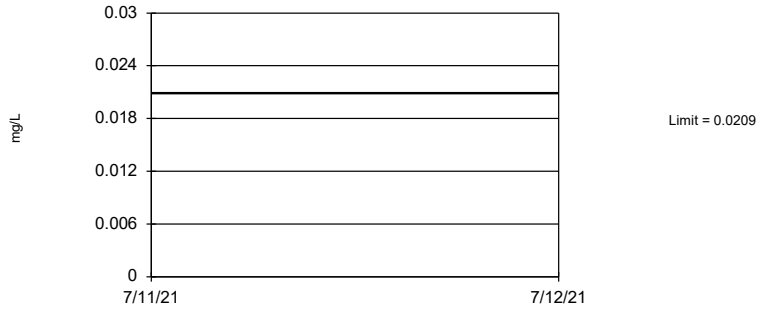
NP test selected by user. Limit is highest of 95 background values. 97.89% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Molybdenum Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



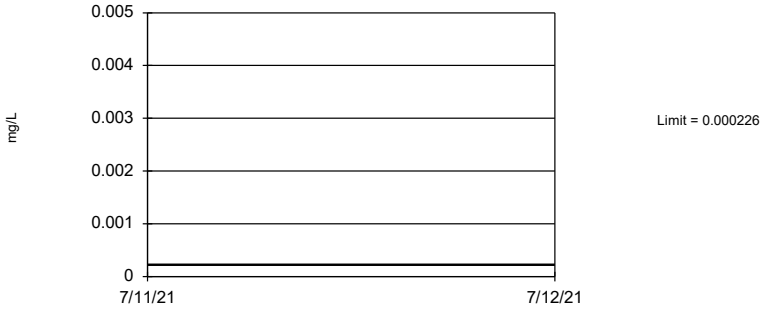
NP test selected by user. Limit is highest of 95 background values. 58.95% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Selenium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 96.84% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Thallium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

FIGURE H.

GORGAS GYPSUM POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.0166	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00652	0.005
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	0.64	0.64
Combined Radium-226/228	pCi/L	1.47	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00692	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.0181	0.05
Thallium	mg/L	0.000226	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 I.

Confidence Interval Summary Table - All Results (No Significant)

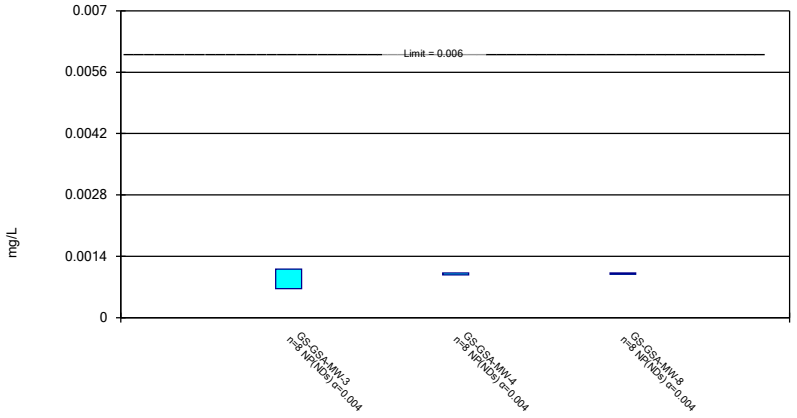
Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-GSA-MW-3	0.00111	0.00066	0.006	No	8	0.0001355	75	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-4	0.00102	0.000976	0.006	No	8	0.00001556	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-8	0.00102	0.00102	0.006	No	8	1.2e-11	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-GSA-MW-3	0.005	0.00057	0.01	No	8	0.002081	50	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-4	0.005	0.00115	0.01	No	8	0.001323	12.5	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-8	0.005	0.00024	0.01	No	8	0.002393	62.5	No	0.004	NP (NDs)
Barium (mg/L)	GS-GSA-MW-3	0.01522	0.01286	2	No	8	0.001115	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-4	0.01418	0.01174	2	No	8	0.001149	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-8	0.0235	0.02	2	No	8	0.001653	0	No	0.01	Param.
Beryllium (mg/L)	GS-GSA-MW-3	0.00345	0.00141	0.004	No	8	0.0006843	0	No	0.004	NP (normality)
Beryllium (mg/L)	GS-GSA-MW-4	0.00768	0.00369	0.004	No	8	0.001358	0	No	0.004	NP (normality)
Cadmium (mg/L)	GS-GSA-MW-4	0.00336	0.00143	0.005	No	8	0.0006563	0	No	0.004	NP (normality)
Chromium (mg/L)	GS-GSA-MW-3	0.01	0.000386	0.1	No	8	0.004959	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-4	0.01	0.000567	0.1	No	8	0.004774	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-8	0.01	0.0003	0.1	No	8	0.004972	62.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-GSA-MW-3	0.136	0.06788	0.64	No	8	0.03212	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-4	0.3289	0.1716	0.64	No	8	0.07419	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-8	0.00546	0.00026	0.64	No	8	0.002143	62.5	No	0.004	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-3	0.6243	0.2672	5	No	8	0.1726	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-4	1.168	0.277	5	No	8	0.4204	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-8	1.021	-0.01234	5	No	8	0.4876	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-3	0.7083	0.393	4	No	8	0.1488	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-4	0.44	0.05	4	No	8	0.1379	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	GS-GSA-MW-8	0.1894	0.1083	4	No	8	0.03827	0	No	0.01	Param.
Lead (mg/L)	GS-GSA-MW-3	0.0002	0.00014	0.015	No	8	0.00002378	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-4	0.00103	0.0002	0.015	No	8	0.0003351	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-8	0.0002	0.000145	0.015	No	8	0.00002434	75	No	0.004	NP (NDs)
Lithium (mg/L)	GS-GSA-MW-3	0.4994	0.3666	0.419	No	8	0.06719	0	x^2	0.01	Param.
Lithium (mg/L)	GS-GSA-MW-4	0.671	0.262	0.419	No	8	0.1473	0	No	0.004	NP (normality)
Lithium (mg/L)	GS-GSA-MW-8	0.2131	0.1702	0.419	No	8	0.02023	0	No	0.01	Param.
Molybdenum (mg/L)	GS-GSA-MW-3	0.01	0.00022	0.1	No	8	0.005055	62.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-GSA-MW-8	0.01	0.00012	0.1	No	8	0.004722	62.5	No	0.004	NP (NDs)
Selenium (mg/L)	GS-GSA-MW-3	0.01	0.00117	0.05	No	8	0.004498	50	No	0.004	NP (normality)
Selenium (mg/L)	GS-GSA-MW-4	0.01	0.00294	0.05	No	8	0.003295	37.5	No	0.004	NP (normality)
Thallium (mg/L)	GS-GSA-MW-4	0.001	0.00009	0.002	No	8	0.0004436	50	No	0.004	NP (normality)

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

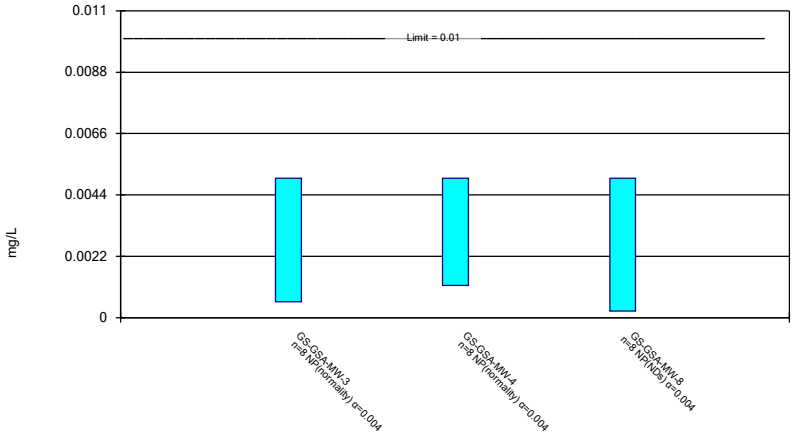


Constituent: Antimony Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

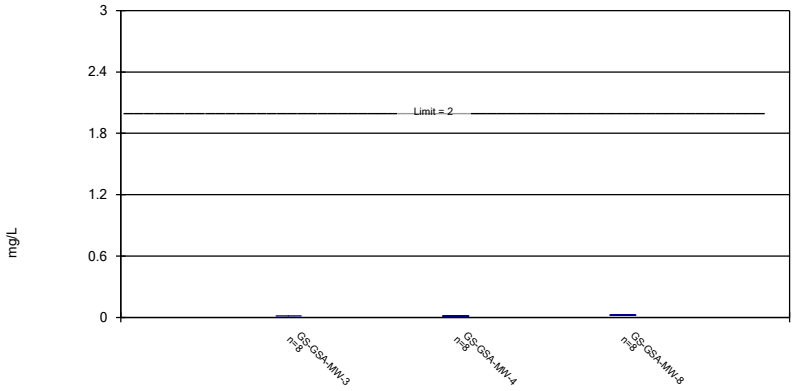


Constituent: Arsenic Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

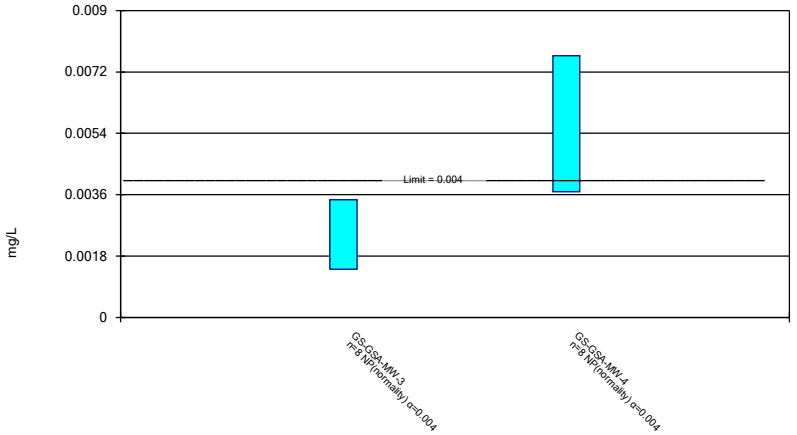


Constituent: Barium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

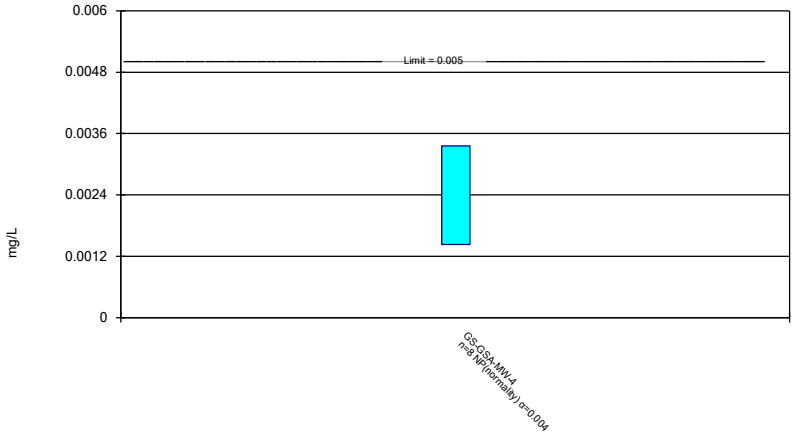


Constituent: Beryllium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

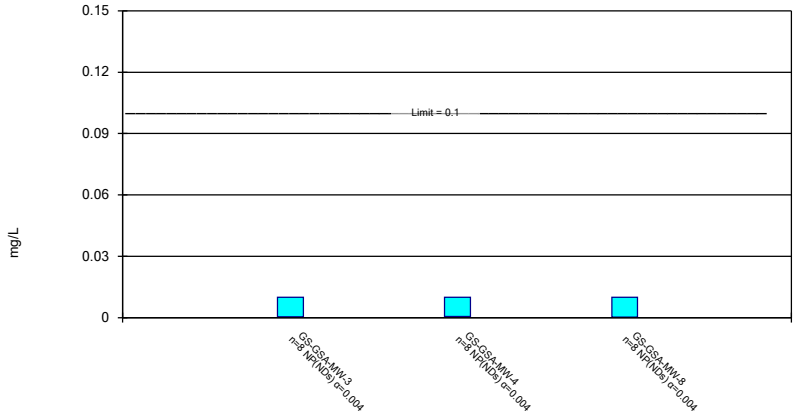


Constituent: Cadmium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

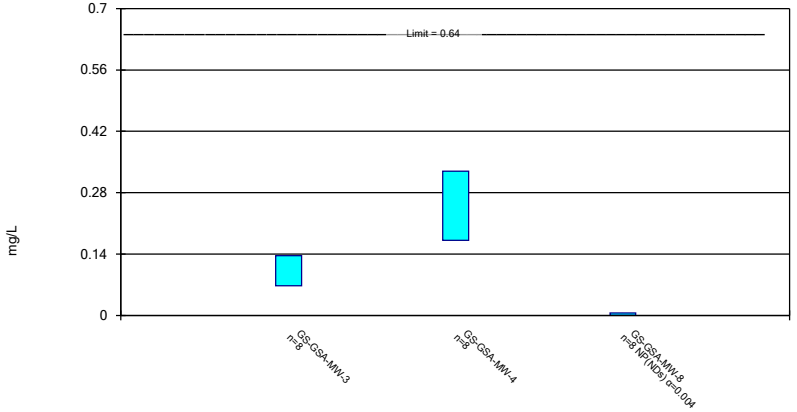


Constituent: Chromium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

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.

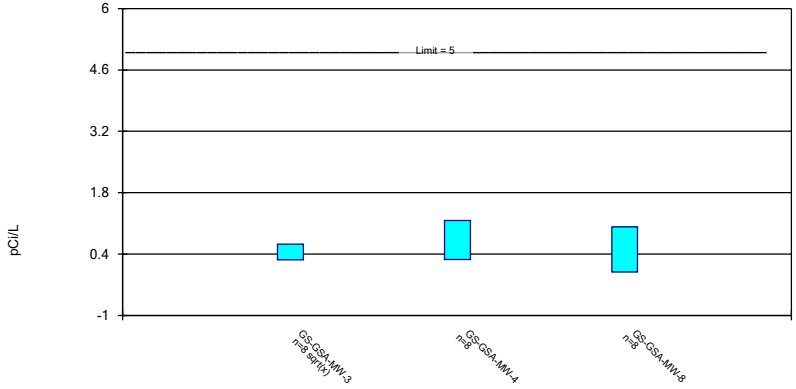


Constituent: Cobalt Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

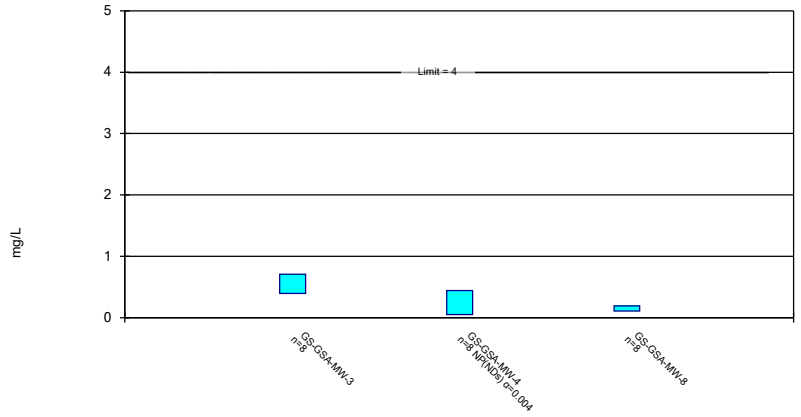


Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

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.

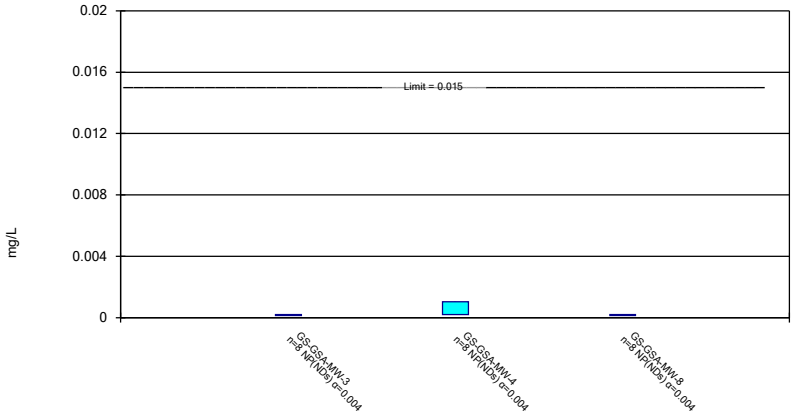


Constituent: Fluoride Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

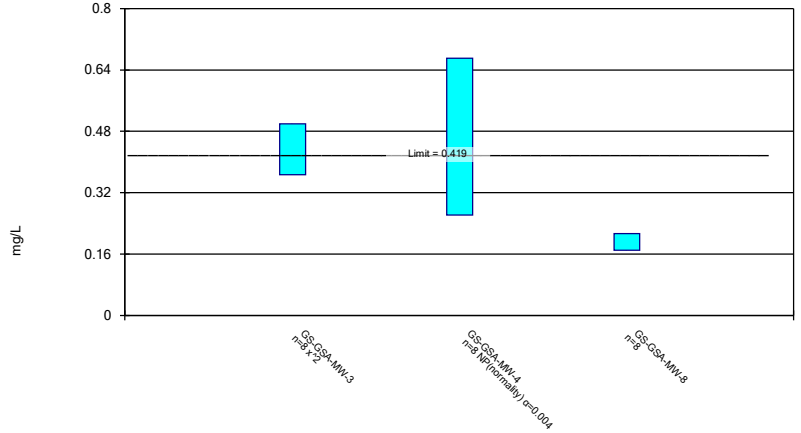


Constituent: Lead Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

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.

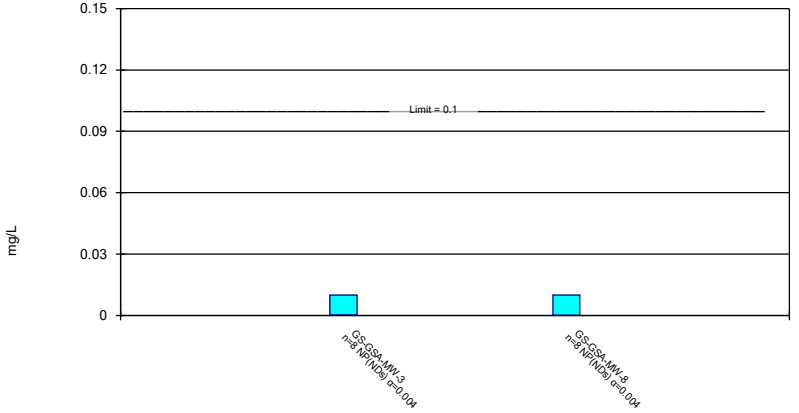


Constituent: Lithium Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

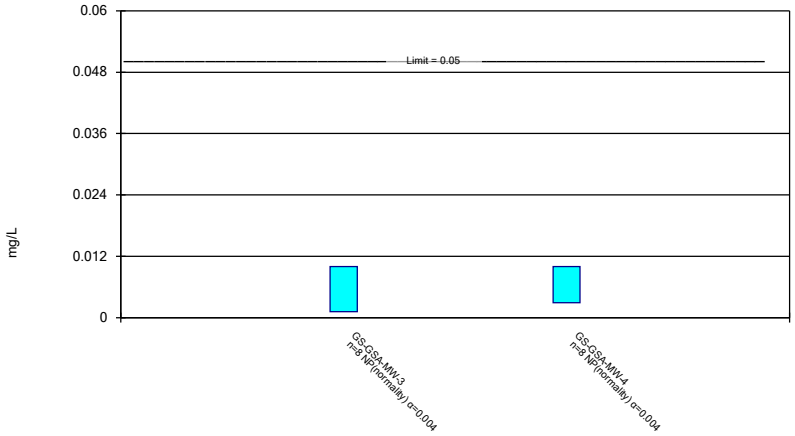
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

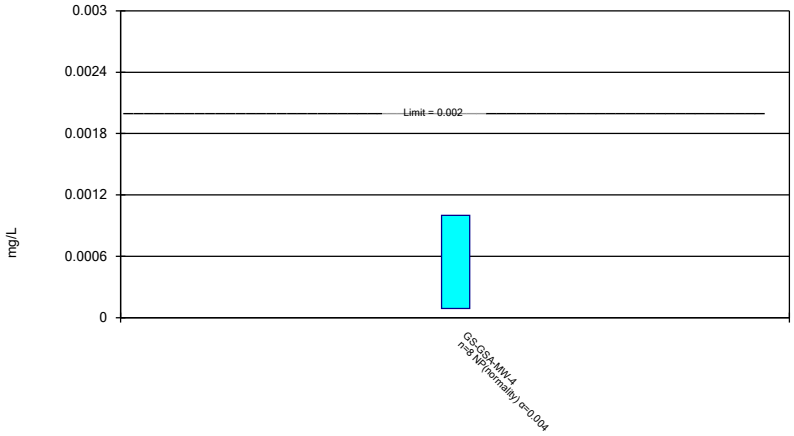


Constituent: Selenium Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.00102	<0.00102	<0.00102
4/10/2019	0.00111 (J)	0.000976 (J)	0.00102 (J)
10/14/2019	<0.00102	<0.00102	<0.00102
2/3/2020	<0.00102		
2/4/2020		<0.00102	<0.00102
8/4/2020	<0.00102		
8/5/2020		<0.00102	<0.00102
3/1/2021	<0.00102		<0.00102
3/3/2021		<0.00102	
7/14/2021	<0.00102	<0.00102	<0.00102
1/26/2022	0.00066 (J)		
1/27/2022		<0.00102	<0.00102
Mean	0.0009862	0.001014	0.00102
Std. Dev.	0.0001355	1.556E-05	1.2E-11
Upper Lim.	0.00111	0.00102	0.00102
Lower Lim.	0.00066	0.000976	0.00102

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.005	<0.005	<0.005
4/10/2019	0.00121 (J)	0.00176 (J)	<0.005
10/14/2019	<0.005	0.0012 (J)	<0.005
2/3/2020	<0.005		
2/4/2020		0.00128 (J)	<0.005
8/4/2020	<0.005		
8/5/2020		0.00115 (J)	<0.005
3/1/2021	0.0014		0.000633
3/3/2021		0.00116	
7/14/2021	0.00057	0.00174	0.00024
1/26/2022	0.00136		
1/27/2022		0.00274	0.00027
Mean	0.003067	0.002004	0.003268
Std. Dev.	0.002081	0.001323	0.002393
Upper Lim.	0.005	0.005	0.005
Lower Lim.	0.00057	0.00115	0.00024

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.013	0.0125	0.0236
4/10/2019	0.0153	0.0136	0.02
10/14/2019	0.0122	0.0147	0.0215
2/3/2020	0.0141		
2/4/2020		0.0124	0.0209
8/4/2020	0.0139		
8/5/2020		0.0142	0.0216
3/1/2021	0.0154		0.0194
3/3/2021		0.0117	
7/14/2021	0.0136	0.0115	0.0232
1/26/2022	0.0148		
1/27/2022		0.0131	0.0238
Mean	0.01404	0.01296	0.02175
Std. Dev.	0.001115	0.001149	0.001653
Upper Lim.	0.01522	0.01418	0.0235
Lower Lim.	0.01286	0.01174	0.02

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4
10/17/2018	0.00345	0.00369
4/10/2019	0.00257 (J)	0.00469
10/14/2019	0.00162 (J)	0.00403
2/3/2020	0.00141 (J)	
2/4/2020		0.00415
8/4/2020	0.00174 (J)	
8/5/2020		0.00385
3/1/2021	0.00157	
3/3/2021		0.00406
7/14/2021	0.00175	0.00577
1/26/2022	0.00179	
1/27/2022		0.00768
Mean	0.001988	0.00474
Std. Dev.	0.0006843	0.001358
Upper Lim.	0.00345	0.00768
Lower Lim.	0.00141	0.00369

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4
10/17/2018	0.00188
4/10/2019	0.00176
10/14/2019	0.0015
2/4/2020	0.00143
8/5/2020	0.00157
3/3/2021	0.00162
7/14/2021	0.00246
1/27/2022	0.00336
Mean	0.001948
Std. Dev.	0.0006563
Upper Lim.	0.00336
Lower Lim.	0.00143

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.01	<0.01	<0.01
4/10/2019	<0.01	<0.01	<0.01
10/14/2019	<0.01	<0.01	<0.01
2/3/2020	<0.01		
2/4/2020		<0.01	<0.01
8/4/2020	<0.01		
8/5/2020		<0.01	<0.01
3/1/2021	0.000386 (J)		0.000423 (J)
3/3/2021		0.000567 (J)	
7/14/2021	0.00039 (J)	0.0007 (J)	0.0003 (J)
1/26/2022	0.00048 (J)		
1/27/2022		0.00107	0.00046 (J)
Mean	0.006407	0.006542	0.006398
Std. Dev.	0.004959	0.004774	0.004972
Upper Lim.	0.01	0.01	0.01
Lower Lim.	0.000386	0.000567	0.0003

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
4/17/2017	0.294 (o)		
10/17/2018	0.138	0.154	<0.005
4/10/2019	0.151	0.241	<0.005
10/14/2019	0.102	0.213	<0.005
2/3/2020	0.0843		
2/4/2020		0.217	<0.005
8/4/2020	0.0862		
8/5/2020		0.235	<0.005
3/1/2021	0.119		0.00546
3/3/2021		0.24	
7/14/2021	0.0555	0.296	0.00026
1/26/2022	0.0794		
1/27/2022		0.406	0.00067
Mean	0.1019	0.2503	0.003924
Std. Dev.	0.03212	0.07419	0.002143
Upper Lim.	0.136	0.3289	0.00546
Lower Lim.	0.06788	0.1716	0.00026

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.668	0.922	1.05
4/10/2019	0.265 (U)	0.622	0.128 (U)
10/14/2019	0.297 (U)	0.317 (U)	0.225 (U)
2/3/2020	0.28 (U)		
2/4/2020		0.324 (U)	0.336 (U)
8/4/2020	0.45 (U)		
8/5/2020		0.389 (U)	-0.115 (U)
3/1/2021	0.57 (U)		0.902 (U)
3/3/2021		0.836 (U)	
7/14/2021	0.668 (U)	1.58	1.23 (U)
1/26/2022	0.335 (U)		
1/27/2022		0.791 (U)	0.28 (U)
Mean	0.4416	0.7226	0.5045
Std. Dev.	0.1726	0.4204	0.4876
Upper Lim.	0.6243	1.168	1.021
Lower Lim.	0.2672	0.277	-0.01234

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.78	0.44	0.16
4/10/2019	0.738	<0.1	0.156
10/14/2019	0.619	<0.1	0.118
2/3/2020	0.427		
2/4/2020		<0.1	0.132
8/4/2020	0.389		
8/5/2020		<0.1	0.119
3/1/2021	0.449		0.106
3/3/2021		<0.1	
7/14/2021	0.556	<0.1	0.221
1/26/2022	0.447		
1/27/2022		<0.1	0.179
Mean	0.5506	0.09875	0.1489
Std. Dev.	0.1488	0.1379	0.03827
Upper Lim.	0.7083	0.44	0.1894
Lower Lim.	0.393	0.05	0.1083

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.0002	<0.0002	<0.0002
4/10/2019	<0.0002	<0.0002	<0.0002
10/14/2019	<0.0002	<0.0002	<0.0002
2/3/2020	<0.0002		
2/4/2020		<0.0002	<0.0002
8/4/2020	<0.0002		
8/5/2020		<0.0002	<0.0002
3/1/2021	0.000157 (J)		0.000145 (J)
3/3/2021		0.000609	
7/14/2021	0.00018 (J)	0.00079	<0.0002
1/26/2022	0.00014 (J)		
1/27/2022		0.00103	0.00015 (J)
Mean	0.0001846	0.0004286	0.0001869
Std. Dev.	2.378E-05	0.0003351	2.434E-05
Upper Lim.	0.0002	0.00103	0.0002
Lower Lim.	0.00014	0.0002	0.000145

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.494	0.266	0.188
4/10/2019	0.425	0.282	0.195
10/14/2019	0.459	0.262	0.209
2/3/2020	0.474		
2/4/2020		0.29	0.188
8/4/2020	0.468		
8/5/2020		0.273	0.206
3/1/2021	0.353		0.149
3/3/2021		0.313	
7/14/2021	0.485	0.487	0.213
1/26/2022	0.31		
1/27/2022		0.671	0.185
Mean	0.4335	0.3555	0.1916
Std. Dev.	0.06719	0.1473	0.02023
Upper Lim.	0.4994	0.671	0.2131
Lower Lim.	0.3666	0.262	0.1702

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-8
10/17/2018	<0.01	<0.01
4/10/2019	<0.01	<0.01
10/14/2019	<0.01	<0.01
2/3/2020	<0.01	
2/4/2020		<0.01
8/4/2020	<0.01	
8/5/2020		<0.01
3/1/2021	0.00022	0.00277
7/14/2021	0.00026	0.00015 (J)
1/26/2022	0.00022	
1/27/2022		0.00012 (J)
Mean	0.006337	0.00663
Std. Dev.	0.005055	0.004722
Upper Lim.	0.01	0.01
Lower Lim.	0.00022	0.00012

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4
10/17/2018	<0.01	<0.01
4/10/2019	0.00234 (J)	0.00322 (J)
10/14/2019	<0.01	<0.01
2/3/2020	<0.01	
2/4/2020		<0.01
8/4/2020	<0.01	
8/5/2020		0.00298 (J)
3/1/2021	0.00141	
3/3/2021		0.00294
7/14/2021	0.00151	0.00563
1/26/2022	0.00117	
1/27/2022		0.00817
Mean	0.005804	0.006617
Std. Dev.	0.004498	0.003295
Upper Lim.	0.01	0.01
Lower Lim.	0.00117	0.00294

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4
10/17/2018	<0.001
4/10/2019	<0.001
10/14/2019	<0.001
2/4/2020	<0.001
8/5/2020	0.000205 (J)
3/3/2021	0.000178 (J)
7/14/2021	9E-05 (J)
1/27/2022	0.00022
Mean	0.0005866
Std. Dev.	0.0004436
Upper Lim.	0.001
Lower Lim.	9E-05

Appendix E

ALTERNATE SOURCE DEMONSTRATION

ALABAMA POWER COMPANY
PLANT GORGAS
GYPSUM POND

July 31, 2022

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering

CERTIFICATION STATEMENT

This *Alternate Source Demonstration, Alabama Power Company Plant Gorgas Gypsum Pond,* has been prepared in accordance with the 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 ADEM Admin Code r. 335-13-15-.06(6)(g)4.(ii) under the direction of a licensed professional engineer with Southern Company Services.

I hereby certify that the information used to prepare this *Alternate Source Demonstration* is accurate to the best of my knowledge.

Robert F. Singleton III, PG — Date: 7/31/2022
AL Registered Professional Geologist No. 1584

Gregory Whetstone, PE — Date: 7/31/2022
AL Registered Professional Engineer No. 27885

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APPENDICES

Appendix A	Statistical Analysis
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ABBREVIATIONS

APC	Alabama Power Company
ASD	Alternate Source Demonstration
Al_2O_3	Aluminum Oxide
ACM	Assessment of Corrective Measures
BSE	Back-scattered Electron
BGS	below ground surface
CCR	Coal Combustion Residual Rule
R^2	Coefficient of Determination
EMPA	Electron Microprobe Analysis
EDX	Energy Dispersive X-ray
Fe_2O_3	Ferric Iron
FEG	Field Emission Gun
GWPS	Groundwater Protection Standards
HDPE	high-density polyethylene
LA ICP-MS	Laser Ablation Inductively Coupled Plasma Mass Spectroscopy
LOI	Loss on Ignition
MSL	mean sea level
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
NRCDS	National Coal Data System
NTU	Nephelometric Turbidity Units
K_2O	Potassium Oxide
RIR	Reference Intensity Radio
SEP	Sequential Extraction
SGS	SGS Canada, Inc.
SiO_2	Silica
SDD	Silicon Drift Detections
Na_2O	Sodium Oxide
SSLs	Statistically Significant Levels
SPLP	Synthetic Precipitation Leaching Procedure
SU	Standard Units
TIMA-X	TESCAN Integrated Mineral Analyzer

TIMS	Thermal Ionization Mass Spectrometry
TiO_2	Titanium Dioxide
EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WRA	Whole Rock Analysis
XRD	X-ray Diffraction
XRF	X-ray Fluorescence

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR §257.95(g)(3)(ii),) and ADEM Admin Code r. 335-13-15-.06(6)(g)4.(ii), this report presents an *Alternate Source Demonstration* (ASD) for lithium in groundwater at Alabama Power Company's (APC) Plant Gorgas Gypsum Pond. Lithium exceeds the groundwater protection standard (GWPS) at statistically significant levels (SSLs) in two compliance wells. Four delineation wells have also exhibited lithium concentrations over the GWPS.

Pursuant to §257.94(g)(3)(ii) and ADEM Admin Code r. 335-13-15-.06(6)(g)4.(ii), the CCR rule allows the owner or operator to demonstrate that a source other than the CCR unit caused an SSL or that the SSL resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The data analyzed in this comprehensive study demonstrates that the SSLs for lithium in site monitoring wells are the result of natural variation in groundwater quality driven by naturally occurring lithium in clay minerals in aquifer solids. Mobilization of lithium to groundwater primarily occurs with the weathering of mudstone and clay-rich mine spoils that constitute significant portions of the subsurface overburden profile at the Site.

This ASD report has been prepared to address historical SSLs for lithium in the following downgradient compliance monitoring wells:

- GS-GSA-MW-3
- GS-GSA-MW-4

This ASD report has also been prepared to address the GWPS exceedances for lithium in the following vertical and horizontal delineation wells:

- GS-GSA-MW-3V
- GS-GSA-MW-9V
- GS-GSA-MW-12H
- GS-GSA-MW-14H

During the most recent groundwater monitoring event (January 2022), no SSLs for lithium were observed in downgradient monitoring wells, and one lithium GWPS exceedance was observed in horizontal

delineation well GS-GSA-MW-14H (0.430 milligrams per liter (mg/L)). Thus, lithium concentrations reflect temporal variability in groundwater flow conditions in the overburden mine spoils.

Based on evaluation of site data, lithium occurs in the overburden and bedrock aquifers at concentrations significantly greater than the range of average reported concentration in the earth's crust and groundwater conditions support the mobility of lithium from the aquifer solids into groundwater at the Site. As such, this ASD demonstrates that the SSLs for lithium in the aforementioned wells are not the result of a release from the Plant Gorgas Gypsum Pond. Therefore, routine groundwater monitoring will continue at the Site and no further action, such as implementing corrective action or further delineation in these areas, is necessary.

In addition to serving as an ASD for historical SSLs in compliance wells and exceedances in delineation wells, this report also provides a comprehensive study documenting geogenic sources of lithium at the Site, and Pottsville Formation. as well as mechanisms for mobilization to groundwater. As such this study report may be referenced in explanation or guidance for potential futures SSLs or GWPS exceedances.

2.0 SITE LOCATION AND DESCRIPTION

The 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. Plant Gorgas lies in portions of the USGS topographic quadrangle maps (USGS, 1975; USGS, 1983).

The Gypsum Pond is located west-northwest of the main plant and to the north of the Black Warrior River. **Figure 1, Site Location Map**, depicts the location of the Plant and Gypsum Pond with respect to the surrounding area.

The Plant Gorgas Gypsum Pond is currently undergoing closure-by-removal where source control will be completed by removal of CCR material at the unit regarding the area as needed to facilitate stormwater management. The Gypsum Pond is currently lined with a 60-millimeter high-density polyethylene (HDPE) geomembrane liner which was installed after existing soils/mine spoils were graded, the subgrade proof rolled, and a granular fill placed beneath the liner. During closure, the Gypsum Pond is being progressively dewatered to facilitate removal, and water from the pond is directed to a lower sedimentation pond by a series of underdrains. The sedimentation pond, clear pool, and emergency storage pond are shown on **Figure 2, Monitoring Well Location Map**.

2.1 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 and Baker Creek to over 500 feet above MSL along a northwest-trending ridge approximately 1,000 feet northwest of the plant and in upland areas on the western part of the property. Generally, the land surface slopes from north to south and towards the Mulberry Fork of the Black Warrior River as shown on **Figure 3, Site Topographic Map**.

Two natural surface water bodies drain Plant Gorgas property. Baker Creek flows from northwest to southeast through the central portion of the plant before draining into the Mulberry Fork of the Black Warrior River. Mulberry Fork flows from east to west as it bends around the southern border of the plant property.

2.2 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 lithospheric flexure and sediment loading associated with Appalachian and Ouachita orogenies. The bedrock geology is dominated by clastic sedimentary rocks of the Upper Pottsville Formation. Deeper stratigraphy is marked by carbonates, shales, chert, and sandstones of Mississippian to Cambrian in age (Raymond et al., 1988). Plant Gorgas is directly underlain by rocks belonging to the Pratt Coal Group (Ward II et al., 1989) of the Upper Pottsville Formation. In general, the Pratt Group consists of mudstone, shale, fine-grained sandstone, and interbedded coal in fining-upward sequences. 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.

Strip mining was conducted over a large portion of the area down to the American seam. As a result, the overburden around the Gypsum Pond is dominated by backfilled mine overburden (mine spoils) and is characterized by weathered shale and sandstone boulders with lenses of fine sediments and small amounts of coal fragments and coarse sediments. Geologic logs generated during various on-Site investigations indicate that the depth to rock varies significantly, ranging from as little as 20 feet (un-mined areas) to as much as 155 feet below ground surface (BGS). Beneath the Gypsum Pond, subsurface geology is likely characterized by thin remnants of mine backfill and un-mined portions of the Pratt Coal Group consisting predominantly of mudstone and sandstone.

Two water-bearing zones are present beneath the Site: (1) the mine overburden/top-of-rock interface, and (2) the underlying Pottsville aquifer system. The mine overburden/top of rock interface is usually a thin zone of saturation overlying rock and is not laterally continuous across all portions of the Site. Depth to this zone generally ranges from 100 to 115 feet beneath the Site.

2.2.1 Pottsville Formation – Rock Chemistry

Published data indicate that lithium and other trace elements occurs at elevated concentrations in the Southern Appalachian Pottsville and Pottsville coal strata where Site monitoring wells are screened (Kolker et al., 1999, Diehl et al., 2004, Goldhaber et al., 2002). The United States Geological Survey (USGS) maintains an inventory of coal quality that includes trace metal concentration data, and the USGS National Coal Data System (NRCDS) has inventoried 75 Pratt Coal Group samples from the Pratt, Nickel Plate, and American coal seams that show elevated concentrations for lithium and other trace elements such as boron commonly present in CCR.

Table 1, Occurrence of Lithium & Boron in Pottsville Coal Seams, summarizes minimum, average, and maximum concentrations of lithium concentrations in the Pratt, Nickel Plate, and American coal seams derived from the NRCDS and compares them to published concentrations for crustal abundance. When compared to the average crustal abundance of lithium and boron, Pottsville coal seams display boron concentrations that are typically 3.5 times higher, and lithium concentrations, around 4.5 times higher (Smith and Huyck, 1999). Relative enrichment is attributed to the upwelling of metal-bearing hydrothermal fluids and precipitation along rock fractures as well as coal cleats, veins, and cellular structures (Diehl et al., 2004). A series of trace metal concentration maps for Warrior Basin coal seams by Goldhaber et. al. (2000) shows a northwest-southeast trending enrichment zone intersecting portions of Plant Gorgas. Mineralogical analysis conducted as part this ASD study indicate that lithium readily occurs in clay minerals associated with shales and mudstones at the site. Weathering of shales and mudstones in water-bearing zones increase the availability of lithium in groundwater and can contribute to the elevated concentrations observed in site groundwater.

Furthermore, the process of strip mining and backfilling these materials can increase the availability of trace metals to groundwater through enhanced weathering of rock and creation of variable groundwater flow resulting in highly variable concentrations of lithium and other trace elements within the overburden and bedrock aquifers.

2.2.2 Groundwater Flow

Since the start of groundwater monitoring in 2016, new piezometers and delineation wells were added to the assessment monitoring network. With the addition of the new data, several groundwater flow systems have been identified at the Site, and groundwater flow is now grouped into five flow systems: (1) Upper Water-Table Flow System, (2) Intermediate Flow System 1, (3) Intermediate Flow System 2, (4) Intermediate Flow System 3, and (5) Deep Flow System. These flow systems represent different groundwater pathways within the uppermost aquifer and are due to significant variability of subsurface material represented by mine spoils, coal seams, fractures and other features that affect the groundwater flow regimes in the subsurface at the Site. Nonetheless, each system is interpreted to flow south to south-east across the Site.

For the Upper Water-Table Flow System, groundwater flow at the Site is a subdued replica of the natural topography where gravity is the dominant force driving flow. The general direction of groundwater flow in this system is towards the south. However, locally, flow may also occur towards the southeast and southwest mimicking the natural topography of the Site. West of the gypsum pond, flow is (A) towards northern and

central portions of the gypsum pond or (B) lateral to southern portions of the gypsum pond. Flow converges towards “Blue Pond” south of the gypsum pond and to the Black Warrior River further south.

Intermediate flow systems and the deep flow system beneath the Site display similar flow patterns. Hydraulically, these systems appear semi-confined to confined as groundwater elevations display vertical separation and downward vertical gradients. Flow through these systems likely converge to similar hydraulic potential near “Blue Pond” south of the Plant Gorgas Gypsum Pond.

Figure 2 depicts the certified groundwater monitoring well network, and **Figures 4a** through **4e, Potentiometric Surface Contour Maps (January 2022)** depict the most recent water levels at the site.

3.0 GROUNDWATER MONITORING HISTORY

Since 2018, assessment groundwater monitoring at the Site has been performed in accordance with § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a). Based on statistical evaluation of the 2018 assessment monitoring data, SSLs for lithium were identified at downgradient compliance wells GS-GSA-MW-3 and GS-GSA-MW-4. The site performed an Assessment of Corrective Measures (ACM) and submitted an ACM report, revised in February 2020 (Anchor QEA, 2020). Pursuant to § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO No. 18-096-GW, delineation wells 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 July 2020. These delineation (assessment) wells, along with the compliance monitoring well network, are sampled semi-annually.

SSLs have been noted at GS-GSA-MW-3 and GS-GSA-MW-4 during previous sampling events. Additionally, GWPS exceedances have been noted in vertical delineation wells GS-GSA-MW-3V and GS-GSA-MW-9V and horizontal delineation wells GS-GSA-MW-12H and GS-GSA-MW-14H. The current GWPS for lithium (0.419 mg/L) was established during the most recent background update in the fall of 2021. During the most recent groundwater monitoring event (January 2022), no SSLs for lithium were observed in downgradient monitoring wells, and one lithium GWPS exceedance was observed in horizontal delineation well GS-GSA-MW-14H (0.430 mg/L).

Based on investigations and evaluation, corrective measures were proposed in the Groundwater Remedy Selection Report submitted December 15, 2021. As required by 40 CFR § 257.98(a) and ADEM Admin. Code r. 335-13-15-.06(9)(a), the selected groundwater remedy (monitored natural attenuation (MNA)) was implemented within 90 days of selecting a remedy, and a Corrective Action Groundwater Monitoring Plan was submitted in March 2022. The selected remedy (MNA) is being implemented at the site and includes routine sampling of Appendix III and IV constituents along with a variety of MNA parameters as described in the Corrective Action Groundwater Monitoring Plan.

4.0 SUMMARY OF GROUNDWATER ANALYTICAL AND STATISTICAL RESULTS

In accordance with the corrective action groundwater monitoring plan, semi-annual Appendix IV data are compared to the GWPS using confidence intervals. When a constituent's entire confidence interval exceeds the GWPS, it is considered an SSL. Using this method, SSLs have been noted at downgradient monitoring wells GS-GSA-MW-3 and GS-GSA-MW-4. Additionally, GWPS exceedances have been noted in vertical delineation wells GS-GSA-MW-3V and GS-GSA-MW-9V and horizontal delineation wells GS-GSA-MW-12H and GS-GSA-MW-14H. 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. The current GWPS for lithium (0.419 mg/L) was established during the most recent background update in the Fall of 2021.

Table 2, Monitoring Well Network Details summarizes the monitoring wells construction details of monitoring wells included in this ASD. Statistical plots presenting current GWPS and confidence intervals for the site are presented in **Appendix A, Statistical Analysis.**

5.0 METHODS AND ANALYSES FOR INVESTIGATION

The following sections describes the analytical methods used for this ASD including groundwater and leachate analysis, rock sample analysis, and mineralogical methods. Laboratory analytical reports and field data are included in **Appendix B, Laboratory and Field Data**.

5.1 Leachate Sampling and Analytical Methods

As part of this investigation, leachate samples were collected from treatment ponds located downgradient of the Gypsum Pond and analyzed for Appendix III and IV parameters (except for radium 226 and radium 228) in addition to the standard list of general chemistry parameters.

Because the Gypsum Pond is being progressively dewatered, as described in **Section 2.0,** and there is little to no saturated CCR material, leachate samples collected from the lower sedimentation pond, clear pool, and emergency storage pond were analyzed to characterize the gypsum pond. However, the sample collected from the sedimentation pond (GS-GSA-SP-3) provides an indication of the concentrations of target CCR constituents that are leached under ambient conditions at the Gypsum Pond. The samples collected from the clear pool (GS-GSA-SP-2) and emergency storage pond (GS-GSA-SP-1) show concentrations as the leachate undergoes subsequent settlement and treatment prior to discharge. The leachate samples were analyzed for Appendix III and IV parameters (except for combined radium) which are included in **Table 3, Parameters and Methods.** The field and analytical data are provided in **Appendix B.**

5.2 Groundwater Sampling and Analytical Methods

Groundwater samples are collected semi-annually from monitoring wells using low-flow sampling procedures in accordance with § 257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant Gorgas are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures. During sampling, field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) are measured to determine stabilization and collection of representative groundwater samples. Laboratory analysis for routine groundwater sampling includes Appendix III and IV parameters. Additional general chemistry constituents (major ions and anions) are now being collected voluntarily to help with evaluation of Site groundwater quality. **Table 3** lists Appendix III and IV monitoring constituents as well as additional constituents analyzed from Site groundwater.

5.3 Boron Isotope Analysis

Boron is typically present in Pottsville coal seams ranging from 6.3 to 83.6 milligrams per kilogram (mg/kg) (USGS NRCDS) as shown on **Table 1**, and during its combustion, boron tends to be adsorbed to fly ash particles. When boron from CCR is released into groundwater, it remains conservative in groundwater flow in that boron is nonreactive and mobile in hydrogeologic environments encountered at CCR facilities (EPRI, 2012). For these reasons, boron is an indicator constituent to determine CCR leachate to groundwater. Although boron characterizes CCR, elemental boron cannot exclusively delineate CCR because of other potential sources of boron in the environment (Ruhl et al., 2014). Because there is no species-specific leaching of boron isotopes to water, there is no isotopic fractionation of ^{11}B and ^{10}B during leaching of boron from CCR, (Ruhl et al., 2014). Therefore, the ^{11}B to ^{10}B ratio in CCR is retained in groundwater, which provides a better indicator of CCR source, compared to boron concentration data. Boron isotopic signatures have been successfully demonstrated to fingerprint CCR sources in groundwater (e.g., Nigro et al., 2016, Ruhl et al., 2014, Williams and Hervig, 2014). Ruhl et al., (2014) have shown that Appalachian coals typically have $\delta^{11}B$ between -14‰ and -18‰, and wells screened in the vicinity of coal seams or mine spoils at the site may exhibit similar depleted ^{11}B signature that is unrelated to the CCR unit.

Boron isotope analysis was performed on groundwater samples for select wells during the July 2021 routine semi-annual monitoring event. Wells were selected for boron isotope analysis based on historical SSLs or exceedances for lithium at those locations, groundwater flow direction, and previous review of geochemical data. Eleven groundwater samples were analyzed for ^{10}B and ^{11}B using Thermal Ionization Mass Spectrometry (TIMS) instrument and reported as $\delta^{11}B$ [{($^{11}B/^{10}B$) sample/{($^{11}B/^{10}B$) standard}-1 x 10^3]. The $\delta^{11}B$ was calculated using a reference standard NIST SRM951a. The analysis reported a +/- 2 permill typical standard deviation based on 120 ratios taken for each sample and the average is reported in **Table 4, Boron Isotope Results**. The boron isotopic laboratory report is provided in **Appendix B.**

5.4 Rock Core Sampling and Analytical Methods

As part of the assessment of lithium occurrence in native materials at the site, a total of twelve samples were collected in December 2021 from core recovered from monitoring well installation activities at the site. **Table 4, Core Sample Description Summary,** summarizes the samples collected including the boring interval, elevation, and material description. Samples were selected based on the availability of the core and targeted areas within in the well screen interval, below the water table, or in intervals of geologic interest (i.e., mine spoils). Samples were analyzed for mineralogical and chemical composition using

different extraction techniques by SGS Canada, Inc. (SGS) as described below. **Table 6, Core Sample Analysis Summary,** summarizes the analysis performed on the selected core samples. The core sample analyses are intended to provide data on the extraction of major and trace elements through partial (aqua regia) and total (multi-acid) digestion of solid samples, lithium concentrations associated with different fractions in the solid samples through extracting lithium in sequential steps with increasingly strong acids, semi-quantitative analysis of minerals using x-ray diffraction (XRD) and quantitative determination of minerals, as described below.

5.4.1 Total Metals

Total metals of each of the twelve samples were analyzed using aqua regia and multi acid digestion to determine associations between solid phases of site geologic media and select elements. The aqua regia is a partial digestion using nitric and hydrochloric acid at a 1:3 ratio that dissolves carbonates, sulfides, hydroxides, organically-bound metals, and some silicate minerals. During multi-acid digestion, a combination of at least four different acids is used to extract metals from the sample and is a near-total analysis of the composition of the sample, including the silicate fraction. Each digestion step is followed by trace level inductively coupled plasma, optical emission spectroscopy/mass spectroscopy elemental analysis to determine the elemental composition of the sample.

5.4.2 Synthetic Precipitation Leaching Procedure (SPLP)

SPLP by EPA Method 1312 is an extraction test that was completed to determine the mobility of contaminants from the samples under acidic conditions. The leachant is adjusted to a pH of 4.20 through the addition of a mix of sulphuric acid, nitric acid, and deionized water. The leachant is added to the sample and the sample container is rotated end-over-end for 18 hours. The resultant slurry is then filtered, the extract pH determined, and the extract analyzed for total metals.

5.4.3 Whole Rock Analysis (WRA) and XRD

WRA was performed on each of the twelve samples using x-ray fluorescence (XRF) spectroscopy. This analysis determines the composition of the rock and includes common compounds such as silica (SiO_2), aluminum oxide (Al_2O_3), sodium oxide (Na_2O), potassium oxide (K_2O), ferric iron (Fe_2O_3), titanium dioxide (TiO_2) among others in addition to Loss on Ignition (LOI). While compounds containing lithium were not included in in WRA, the analysis does calculate the percentage of rock that was not determined via XRF as well as identify the chemical makeup of the rock which could point to other sources of lithium

(e.g., lithium is commonly associated with clay minerals, and the presence of elevated aluminum or potassium may indicate a clay-rich sample).

Similar to WRA, XRD was performed to determine the bulk crystalline mineral abundances which can be reconciled with WRA plus any other major elements contained in the sample. XRD is processed using reference intensity radio (RIR) for semi-quantitative analysis and minerals identified are reported in weight percent.

5.4.4 Sequential Extraction (SEP)

SEP was performed on six samples from the site to determine which solid phases of site geologic media lithium and other metals are associate with. Samples are exposed to different reagents which extracts metals bound to a specific phase. The phases identified in SEP are:

1. Water soluble metals (F1).
2. Exchangeable weakly-sorbed metals (F2).
3. Carbonate-bound metals (F3).
4. Metals bound to iron and/or manganese oxides (F4.)
5. Metals bound to organics (F5).

Metals in the water-soluble, exchangeable, and/or acid-soluble fractions are expected to be readily available or become available when salinity or acidity of the environment increases. The exchangeable fraction includes weakly adsorbed elements retained on the solid surface by relatively weak electrostatic interactions, elements that can be released by ion-exchange processes and elements that can be co-precipitated with carbonates (Filgueiras et al., 2002). Changes in the ionic composition, affecting adsorption–desorption reactions, or lowering of pH could cause remobilization of metals from this fraction (Sutherland, 2000). The acid-soluble fraction of the sequential extraction schemes is primarily intended to contain mainly trace elements associated with carbonates, and not those associated with iron/manganese oxides and organic matter.

Metals occurring in the reducible fraction are assumed to be mainly associated with Fe and Mn oxides and released upon establishment of reducing conditions. As mentioned above, ‘new’ oxides (amorphous forms) are easily reducible but ‘aged’ oxides with a more crystalline character (crystalline oxides) are more resistant to changes in the oxidation–reduction conditions. Practically, the reducible fraction can split into

three subfractions: an easily reducible fraction (manganese oxides), a moderately reducible fraction (amorphous iron oxides), and a poorly reducible fraction (crystalline iron oxides).

Metals occurring in the oxidizable fraction are assumed to be bound mainly to organic matter and easily released under oxidizing conditions. As an oxidation process is usually applied to leach them, metals precipitated as sulfides or bound to sulfides are also part of this fraction.

The residual fraction mainly contains silicate/crystalline-bound trace elements and is most commonly dissolved with concentrated acids to leach all remaining trace elements, which can be assumed to be not available under normal environmental conditions.

The final phase of the test includes multi-acid digestion of the sample which provides a near total composition of the sample. This final step can also help determine metal concentrations that were not associated with the phases identified in the five-step process.

5.4.5 Mineralogy

Alternative automated mineralogical analysis was performed on six samples using TESCAN Integrated Mineral Analyzer (TIMA-X). TIMA-X is an automated mineralogical instrument that acquires high resolution data and real-time collection of semi-quantitative mineral compositions. It is based on four energy dispersive x-ray (EDX) silicon drift detections (SDD) attached to a field emission gun (FEG) platform. The TIMA-X system utilizes both the EDX and back-scattered electron (BSE) signals to identify minerals at each measurement point. TIMA-X uses four x-ray analysis scanning modes to identify mineral compounds: high resolution mapping, point spectroscopy, line mapping, and dot mapping. The raw data is extracted from the instrument and processed using the proprietary TIMA software which includes textural and chemical refining of the data and classification into categories in order to extract the mineralogical data for the program. In this case, lithium was the constituent of interest, and the software identified the abundance of lithium in each sample and classified it into categories such as clays, quartz, micas, etc. Additionally, the analysis provided the mineral abundance weight percent that lithium was associated with.

In addition to TIMA-X, select minerals of interest were analyzed to quantify the chemical composition for the major and minor elements using electron microprobe analysis (EMPA). The results from EMPA, in conjunction with TIMA-X, was used to calculate the elemental composition per sample and per mineral. Laser ablation inductively coupled plasma mass spectrometry (LA ICP-MS) was used in conjunction with the EMPA to determine the lithium and other trace contents in the possible lithium-bearing phases. That

data was used along with EMPA and TIMA-X to calculate the lithium and trace element distributions among the minerals in each sample.

6.0 ALTERNATE SOURCE DEMONSTRATION

6.1 Gypsum Pond Leachate

Geochemically, there are key differences between Gypsum Pond leachate and site groundwater that provide strong evidence for an alternate source of lithium in site groundwater. **Table 7, Gypsum Pond Leachate & Groundwater Results Comparison**, provides a summary of analytical data for treatment pond samples versus samples collected from groundwater monitoring wells at the site. Importantly, leachate collected from the Gypsum sedimentation pond (GS-GSA-SP-3) showed a total concentration of lithium at 0.0330 mg/L, well below the groundwater concentrations observed at the site and the background derived GWPS of 0.419 mg/L. Leachate data from multiple samples are consistently an order of magnitude lower than the groundwater lithium concentrations. For reference, the range of average lithium concentrations in downgradient compliance wells is 0.144 to 0.438 mg/L. Considering Gypsum Pond leachate as the source of lithium to groundwater at the Site, the lithium concentrations in wells GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8 are expected to be equal to or lower than the Gypsum Pond leachate concentrations due to attenuation along groundwater flow paths. Instead, the opposite is observed with lithium concentrations in downgradient monitoring wells exhibiting much high lithium concentrations. Thus, higher lithium concentrations noted in groundwater strongly indicate an alternate source in the aquifer.

6.2 Lithium Trends in Groundwater

Lithium concentration trends in downgradient monitoring wells GS-GSA-MW-3 and GS-GSA-MW-4 were evaluated for temporal variations and to assess the potential of the Gypsum Pond as the source for lithium and trends in these wells. **Figure 5, Lithium Time Series Plots**, depict lithium concentrations over time in monitoring wells discussed in this report. The time series plots show variability of lithium concentrations over time that reflect natural variability of groundwater flow under anisotropic conditions in the overburden. The natural variability is seen in the multiple patterns showing higher concentrations in late summer to early winter. As show on **Figure 5,** lithium trends in shallower wells, such as GS-GSA-MW-3 and GS-GSA-MW-4, tend to respond more to fluctuating groundwater levels which correspond to precipitation and recharge. As groundwater levels increase, concentrations generally increase and vice versa. Trends are similar to upgradient well, MW-3, where lithium concentrations oscillate in response to precipitation and recharge through silt and clay dominated mine spoil materials, and range from 0.0689 to 0.419 mg/L.

Lithium concentrations in well in GS-GSA-MW-4 is an exception compared to other wells. A slight increase in concentrations has been noted in GS-GSA-MW-4 beginning in early 2021. This increase in concentration appears to have initiated with an increase in well turbidity which occurred between October 2019 and March 2021. The highest turbidity value of 8.94 nephelometric turbidity units (NTUs) occurred in October 2020 which is notable due to the fact that it was the first sampling event after the February 2020 well solids and precipitate sampling event, a sampling event which retrieved and disturbed well solids and precipitates in the wells (MNA Evaluation). Minerals identified by XRF in the GS-GSA-MW-4 were dominated by muscovite and illite (61% by weight percentage) and lesser percentages of quartz (36.8 %), zeolite (2.0%), and vermiculite (0.2%). In fine-grained sediments, lithium and boron are known to be hosted by smectite, illite, or chlorite clay minerals, and this was experimentally demonstrated showing lithium and boron are adsorbed in the interlayers of smectite and incorporated into illite during diagenetic alteration of smectite (Williams and Hervig, 2005). Other studies have shown that illitic clays and claystone/mudstones are enriched in lithium (Castor and Henry, 2020). Additionally, elevated aluminum, a common constituent associated with clay minerals and micas, was observed in groundwater samples collected from GS-GSA-MW-4 during January and May, 2022 (29.70 and 27.00 mg/L, respectively). Therefore, it is reasonable to attribute increases in lithium and boron to disruption of physical and geochemical equilibria caused by stirring and suctioning of muscovite-illite dominated well sediments.

6.2.1 Lithium Correlations with CCR Indicators

As described in **Section 6.1**, lithium concentrations in Gypsum Pond leachate are an order of magnitude lower than lithium concentrations observed in site groundwater wells and the background-derived GWPS. **Figure 6, Boron vs. Lithium**, shows the correlation of lithium with boron concentrations in groundwater at the site and compares the results to the leachate sample collected from the sedimentation pond and SPLP results analyzed from rock core collected at the site. Groundwater samples collected from GS-GSA-MW-9V, GS-GSA-MW-12H, and GS-GSA-MW14H consistently exhibit very low boron concentrations (less than 0.25 mg/L), have lithium concentrations ranging from less than 0.1 mg/L to 0.54 mg/L and plot similarly to SPLP data analyzed from rock core at the site. This data shows that boron-lithium ratios match closely with aquifer materials and differ significantly from the analyzed CCR source. The lack of correlations of lithium with boron concentrations in groundwater suggest a lack of correlation with the CCR source at the Site and support an aquifer material source.

Slightly elevated boron concentrations are exhibited in wells GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-3V. These wells are screened either at the mine spoil to bedrock interface (GS-GSA-MW-3 and

GS-GSA-MW-4) or, in the case of GS-GSA-MW-3V and GS-GSA-MW-9V, across the Gillepsy coal seam as shown on **Figure 7, Geologic Cross-Section E-E', Lithium Concentrations in Rock and Groundwater.** As discussed in **Section 2.2.**1, elevated boron and lithium are present in Appalachian coal, and that lithium is readily leached from that material as it is weathered. Rock chemistry and minerology data, presented later in **Section 6.4,** also shows elevated lithium in site geologic materials. The fact that elevated lithium and boron concentrations are present in coal and mine spoils at the Site and lithium concentrations in Gypsum Pond leachate are significantly lower than the background derived GWPS supports the conclusion that elevated boron and lithium in these three wells is likely the result of weathering coal and mine spoils.

6.3 Boron Isotope Results

Boron isotopic composition demonstrates a fingerprint of meteoric waters rather than migration of CCR leachate to groundwater. **Figure 8, Boron vs. Isotopic Boron Comparison** depicts the distribution of wells' $\delta^{11}B$ signature versus total boron concentrations at the site. Samples collected from monitoring wells GS-GSA-MW-3, GS-GSA-MW-3V, GS-GSA-MW-8, GS-GSA-MW-12H, and GS-GSA-MW-14H show $\delta^{11}B$ signatures ranging from 8.8 to 33.6‰ (GS-GSA-MW-12H and GS-GSA-MW-8, respectively). The positive boron isotopic ratios in these wells are indicative of meteoric infiltration rather than a CCR source because the CCR signatures are generally depleted in the heavier isotope (e.g. Ruhl et al., 2014).

Other samples collected at the site, including GS-GSA-MW-4, GS-GSA-MW-4V, and GS-GSA-MW-9H, show $\delta^{11}B$ signatures near 0‰ (2.8, -2.6, and 0‰, respectively). While these $\delta^{11}B$ signatures are more depleted than what is typically observed from a meteoric source, the lower $\delta^{11}B$ signatures in these wells can be explained as follows:

- GS-GSA-MW-4 is screened just below the interface of backfilled mine spoils. Mine spoils at the site have been documented to have an abundance of coal which typically have a $\delta^{11}B$ signature of -70 to -1‰ (EPRI, 2012) which could contribute to a depleted signature in groundwater.
- GS-GSA-MW-4V has a lower $\delta^{11}B$ signature (-2.6‰) than GS-GSA-MW-4 (2.8‰). The well screen for GS-GSA-MW-4V is more than 30 feet deeper than shallow well GS-GSA-MW-4. The depleted $\delta^{11}B$ signature in the deeper well would more likely reflect boron signature from the deeper groundwater flow rather than from the shallower groundwater flow from the Gypsum Pond.
- Shale and clay-rich bedrock have exhibited $\delta^{11}B$ signatures of around -4.6‰ (Noireaux et al., 2020). GS-GSA-MW-4, GS-GSA-MW-4V, and GSA-GSA-MW-9H are screened in shale and

mudstone lithologies (and in the case of GS-GSA-MW-4, directly below mine spoils containing coal fragments), and the lower signatures observed in these wells could reflect the dissolution of clay minerals and the mobilization of natural lithium.

In summary, the $\delta^{11}B$ signatures reflect meteoric-origin groundwater recharge through coal seams and mine spoil overburden. **Table 4** summarizes the boron isotope data collected from the site and includes likely sources of the depleted signatures based on site knowledge and other data. The full boron isotopic laboratory results are provided in **Appendix B.**

6.4 Rock Chemistry and Minerology

As described in **Section 5.4**, rock samples were analyzed for major and trace element concentrations through partial (aqua regia) and total (multi-acid) digestion, lithium concentrations associated with different fractions in the solid samples (SEP) through extracting lithium in sequential steps with increasingly strong acids, semi-quantitative analysis of minerals using XRD and quantitative analysis of minerals using TESCAN. The analytical reports for all these different analyses are included in **Appendix B**.

6.4.1 Total Lithium Concentrations

Total lithium concentrations were determined using strong multi-acid digestion of rock samples and the results are provided in **Table 8, Total Lithium Concentrations & Clay Mineral Abundance Summary**. Total lithium concentrations in the rocks collected from the Site range from 30 to 367 mg/kg (MW-9H-50-60 and MW-8V-81-84, respectively) with an average concentration of 128 mg/kg. Only part of the total lithium is extracted using aqua regia digestion and therefore, the data are not discussed in this report's text, but the analytical report is provided in **Appendix B**. Total lithium concentrations noted at the Site are significantly higher than average crustal abundance reported by Smith and Huyck (1999) and suggest a natural abundance of lithium in the aquifer solids.

A composite analyses of bulk rock chemistry and detailed mineralogical data reflects natural enrichment of lithium in Site subsurface materials such as in coal seams, mine spoils, and weathered mudstone and shale. **Figure 9, Lithium vs. Aluminum, Magnesium, Iron, & Manganese,** depicts lithium concentrations versus common clay and oxide constituent concentrations. This figure highlights two generic groupings of samples where samples MW-3V (180-190), MW-8V (81-84), and MW-8V (94-97) are clearly distinct from all other samples. As described in **Table 5**, each of these samples contains coal fragments, and in the case

of MW-8V samples, also contains mine spoils and wood fragments. All other samples are dominated by weathered mudstone and lesser shale.

Total lithium is correlated with other total constituents common in shale, mudstone, and mine spoils such as aluminum and magnesium. In general, the distribution of lithium versus constituents like magnesium and aluminum display similar trends to the distribution of lithium versus clay content – with lithium concentrations increasing as magnesium and aluminum concentrations increase. Mine spoil samples from GS-GSA-MW-8V and the highly weathered shale sample collected from GS-GSA-MW-3V show a similar pattern but have considerably less magnesium and aluminum than weathered mudstone samples. This implies higher degrees of enrichment in the clay or oxide fractions.

In addition to aluminum and magnesium, total lithium concentrations were compared to total iron and total manganese concentrations to analyze whether lithium also occurs in iron and manganese oxides. In general, the distribution of lithium versus iron and manganese displays similar trends to the distribution of lithium versus clay content, magnesium, and aluminum with lithium concentrations increasing as iron and manganese concentrations increase. This analysis supports that lithium is also associated with iron and manganese oxides at the site and is available in multiple fractions. A complete summary of mineral abundance by weight percent and total lithium, aluminum, magnesium, iron, and manganese concentrations are included in **Table 8.**

6.4.2 Whole Rock Analysis

The XRF data indicate variable SiO_2 content ranging from approximately 26% to 78%, and aluminum oxide Al_2O_3 content ranging from about 8.7% to 19.2%. There are notable amounts of Fe_2O_3 ranging from 5.3% to 8.45% and LOI ranging from 3.5 to 8.8%, except for two samples in MW-8V collected from mine spoils that contained very high LOI (42 and 54%). High LOI reflects high carbon content in these samples and attributed to the coal seams and overburden mine spoils which would include coal seams mixed with overburden. Overall, the XRF reflects high aluminum and carbon contents in the aquifer solids which supports the conclusion that lithium is likely associated with clay minerals and coal/mine spoils at the site.

6.4.3 Minerology Results

The mineralogical composition of aquifer solids (overburden and rock) were analyzed using standard semi-quantitative analysis using XRD to a specialized quantitative analysis using TIMA-X as described in **Section 5.4.3** and **5.4.5**. The TIMA-X results show that lithium primarily occurs in clay minerals (i.e.,

kaolinite, smectites, illite, etc.) and micas (i.e., muscovite, biotite, etc.) associated with weathered shale, mudstone, and mine spoils at the site.

The mineral abundance of clays and micas in samples collected from the site and analyzed using the TIMA-X analysis ranged from 10.1% (MW-9H-50-60) to 88.9% (MW-8V-81-84) and averaged 42.6%. In general, as the percentage of clay increased, the total concentration of lithium in the rock increased as shown on **Figure 10, Lithium & Clay Content**. Mine spoils samples collected from GS-GSA-MW-8V exhibited much higher lithium concentrations (234 to 367 mg/kg) than samples collected from weathered shale and mudstone, with the exception of one sample collected from GS-GSA-MW-3V, which exhibited a comparable lithium concentration of 299 mg/kg. Sample MW-3V-180-190 was collected from the screened interval of its corresponding monitoring well (GS-GSA-MW-3V) and the lithology was described as a highly weathered shale/mudstone with healed/mineralized fractures. These elevated lithium concentrations associated with (A) the highly weathered mudstone, and the (B) Gillepsy coal, with mineralized zones strongly supports the association of lithium with clay minerals in sample MW-3V-180-190, and in other samples from the Site.

The semi-quantitative XRD results, shown on **Table 9, XRD Results**, indicate that quartz is the predominant mineral in each of the samples ranging from 24.5 to 57.8 weight percent. Muscovite (mica), kaolinite and chamosite (clays) constitute the second group of minerals, which together represent the hydrated-sheet-silicate minerals and ranged from 17.5 to 39.2 weight percent. However, in several samples (e.g., MW-3V-170-180) the clays and micas predominate the mineralogical composition. Plagioclase felspar minerals are present in lower abundance, ranging from 3.1 to 15.1 weight percent. Significant amounts of pyrite (1.0 to 6.5 weight percent) are also present in the rock samples.

The occurrence of jarosite in two samples collected from mine spoils in GS-GSA-MW-8V and ranging from 7.0 to 14 weight percent, is notably significant, because jarosite is an iron-sulfate salt indicating the presence of acidic conditions as it only forms in a low-pH (<4) environment (Nordstrom and Alpers, 1999). This indicates that acidic conditions in the aquifer existed long before any groundwater impacts (or flow) from the Gypsum Pond. The abundance of chamosite, pyrite and siderite contents support the availability iron minerals for the formation of jarosite.

The mineralogical data supports the occurrence and abundance of clay and mica minerals in the aquifer, and the occurrence of acidic conditions, prior to the construction of the Gypsum Pond. The occurrence of acidic conditions, documented historically (jarosite mineral formation) to current (pH values observed

below 4.0 standard units (SU)), provide a mechanism for the weathering of silicate minerals, and subsequently, the mobilization of major and trace elements, including lithium, to groundwater from exchangeable and oxide fractions of iron and manganese under reducing conditions.

6.4.4 Electron Microprobe Results

To further evaluate the mineralogy of the samples in greater detail, select samples were further analyzed by EMPA as described in **Section 5.4.5**. This analysis offers greater detail and allows for images to be generated that highlight the different minerals where lithium is present in thin sections of a given sample. Modal percentages of minerals quantified by EMPA are provided in **Table 10, EMPA & TIMA-X Modals Summary**. The EMPA data demonstrates that clays and micas constitute the predominant minerals in five samples, while in other samples, these minerals are present in significant amounts closely after quartz. An example EMPA image is provided below; the analytical report is presented in **Appendix B**.

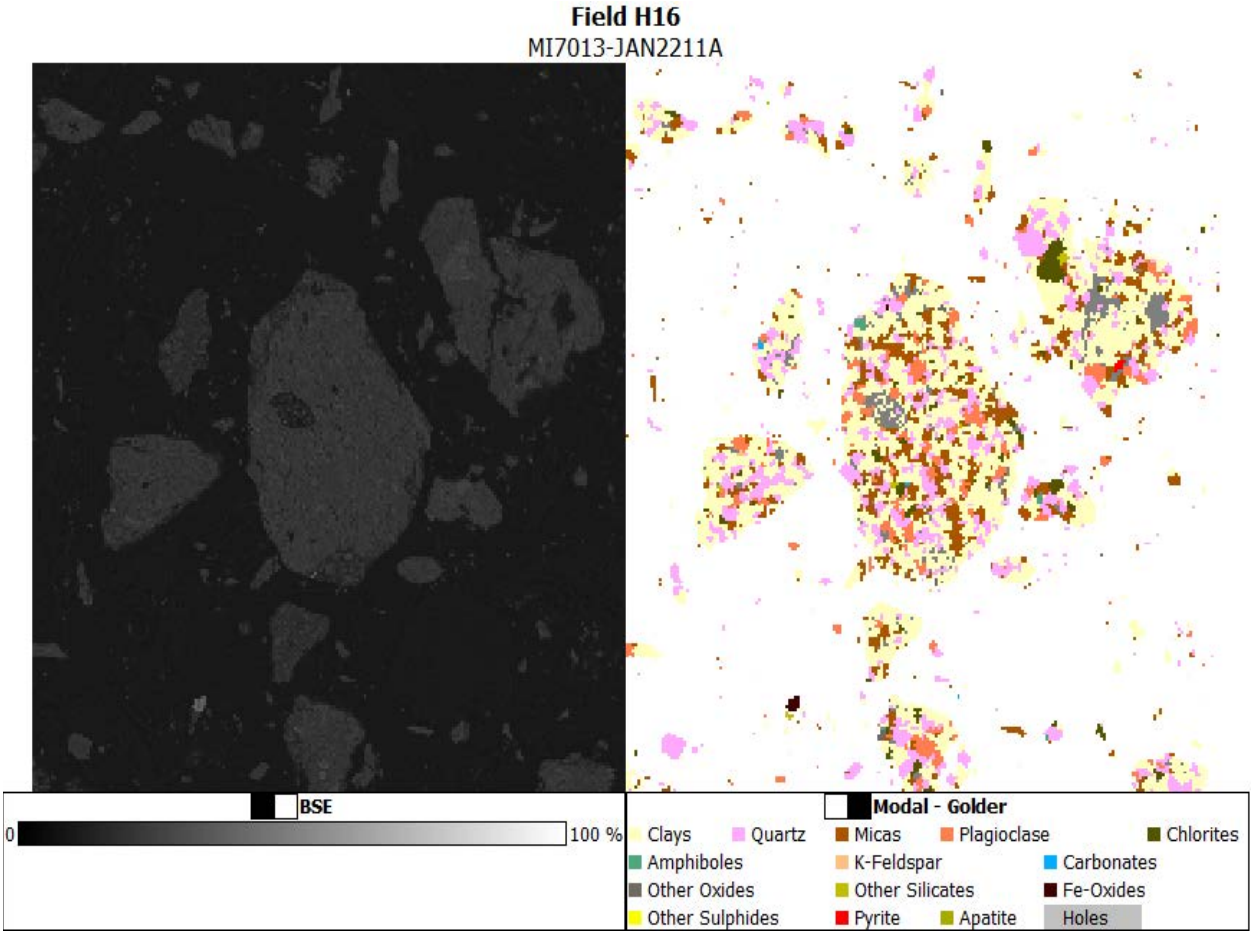

Image 1: MW-3V-170-180 EMPA results show the variety of different minerals identified with the EMPA analysis. The light yellow and brown pixels indicate clay and mica, and on average the lithium concentration in each of these points is 475.31 parts per million (ppm).

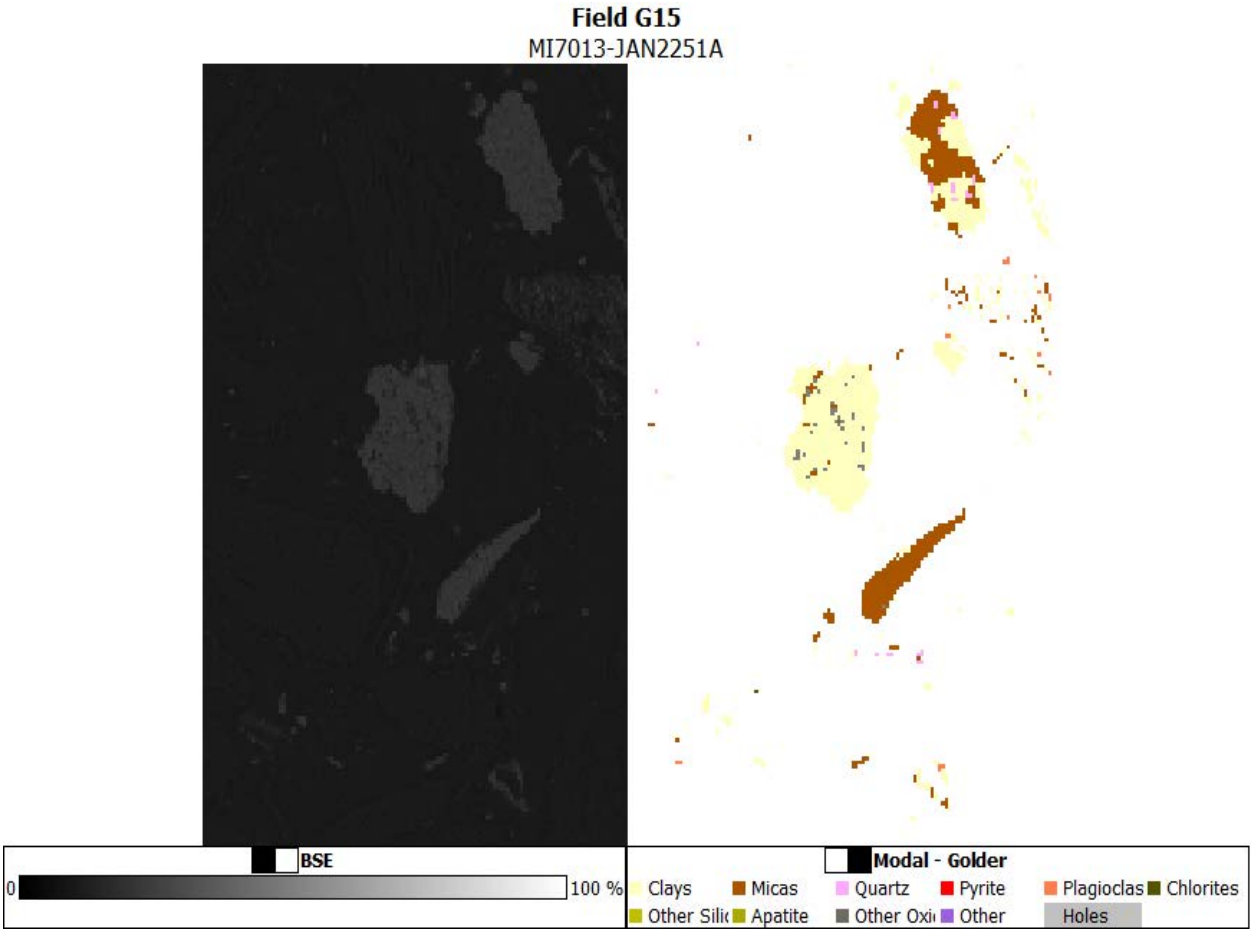

Image 2: MW-8V-81-84 was collected from mine spoils in the upper intervals of GS-GSA-MW-8V. The sample is predominantly composed of micas and clay (88.90%) and the average lithium concentration in each point is 435.86 ppm.

Based on the EMPA data, approximately fifty-point counts were performed in each sample and the oxide contents are reported in **Appendix B**. As shown on **Figure 11, LA ICP-MS Results, Silica vs. Aluminum Oxide,** plots of these point count data indicate that SiO_2 and Al_2O_3 are inversely related suggesting that Al_2O_3 content can be a proxy for increased weathering or clay mineral content.

The TIMA-X mineral data were combined with the EMPA data to identify the association of lithium to specific minerals. **Table 8** shows high lithium concentrations are associated with clays and micas, as

identified by the high resolution EMPA. Assuming increased Al_2O_3 content as a proxy for increased weathering, **Figure 12, LA ICP-MS Results, Lithium vs. Aluminum Oxide** shows that lithium is generally higher when Al_2O_3 contents are higher. Supporting this finding, bulk correlation coefficients on EMPA data show highest positive correlations between lithium and Al_2O_3 (0.52), TiO_2 (0.22). However, with increasing lithium content (lithium greater than 500 mg/kg), TiO_2 (0.38), FeO_2 (0.37), and F (0.22) show nearly the same or slightly higher than Al_2O_3 (0.31).

These plots and data analyses demonstrates the co-occurrence of enriched lithium within clay and mica material at the Site, and highest lithium enrichment, also equally associated with titanium and iron oxide minerals. Based on the TIMA-X and EMPA analyses, it is apparent that (1) clays and micas host lithium in the aquifer solids and, (2) weathering over an extended period, provides a secondary source of lithium in the iron/manganese oxides and easily available metals fractions in the aquifer solids.

6.4.5 SEP Results

The association of lithium to specific fractions (or phases) of aquifer solids was evaluated using SEP as described in **Section 5.4.4**. Results from the SEP analysis are presented in **Table 11, Lithium SEP Results Summary**. The vast majority (98.4 to 99.3%) of lithium in the aquifer overburden is bound in the residual fraction (step 6) with 0.7 to 1.6% of lithium is associated with the fractions that are less strongly bound compared to the residual fraction (**Table 11**). Compared to an average of 131 mg/kg in the step 6 residual fraction, an average of 0.4382 mg/kg was extracted from the samples in stages one through five.

Lithium is largely available in the exchangeable and iron/manganese oxide fractions. On average, 0.1667 mg/L of lithium was extracted from the exchangeable metals fraction and ranged from 0.030 mg/L (MW-8V-155-160 and MW-4V-130-140) to 0.500 (MW-8V-81-84. On average, 0.1933 mg/L of lithium was extracted from the iron and manganese oxide fractions and concentrations ranged from 0.060 mg/L (MW-12H-60-64) to 0.300 mg/L (MW-3V-180-190, MW-9H-40-50, MW-8V-81-84). The total amount of lithium extracted during the SEP analysis ranged from 0.161 mg/L (MW-12H-60-64) to 0.917 mg/L (MW-8V-81-84) with the average amount being 0.465 mg/L.

While much of the lithium resides in the residual stage and was not mobilized from the preceding five fractions (water soluble, exchangeable, bound to carbonates, bound to iron/manganese oxides, bound to organics), concentrations of lithium similar to observed groundwater concentrations were mobilized, especially from the exchangeable metals and iron/manganese oxide fractions.

Occurrences of lithium in the exchangeable and iron/manganese oxide fractions are likely derived from the residual silicate fraction that provides the original source and the subsequent incorporation or adsorption of lithium onto the exchangeable and oxide phases. Natural weathering of shale/mudstone, coal seams, and mine spoils provides the available lithium for release, primarily in the exchangeable and iron/manganese fractions. Since lithium is not affected by pH or redox changes, natural weathering is the primary source of lithium to groundwater at the Site. As shown on **Figure 13, Fraction Lithium Concentrations vs. GWPS** and summarized in **Table 11,** the amount of lithium extracted in these two fractions range from 0.100 mg/L to 0.800 mg/L and averages 0.360 mg/L, which provides a significant match with concentrations observed in Site groundwater monitored by detection and delineation wells, where concentrations range from 0.052 to 0.671 mg/L, and averages 0.318 mg/L (102 samples). Upgradient well MW-3 and piezometers show similar ranges but slightly lower averages. Elevated concentrations of extracted lithium are observed in samples collected from mine spoils (MW-8V-81-84) and samples where the mudstone/shale was highly weathered and there were abundant fractures (MW-3V-180-190).

6.4.6 SPLP Results

As discussed in **Section 5.4.2**, SPLP analysis was conducted on the twelve samples collected from the Site. While the laboratory test is not truly representative of natural conditions at the site and is unable to fully characterize the availability of lithium, it is a relatively straightforward test to determine if lithium is present in site materials and whether it can be readily mobilized under acidic conditions. **Table 12, SPLP Results**, summarizes the lithium concentrations observed from the SPLP analysis.

Results from the SPLP analysis do generally indicate that lithium is available in geologic materials at the site. After 18 hours, lithium concentrations in the leachate ranged from 0.00108 mg/L (MW-9H-50-60) to 0.199 mg/L (MW-8V-81-84) with an average concentration of 0.0461 mg/L. Relatively higher lithium concentrations were observed in MW-3V-180-190 (0.134 mg/L), MW-8V-81-84 (0.199 mg/L), and MW-9H-40-50 (0.136 mg/L). The highest concentration observed (MW-8V-81-84 at 0.199 mg/L) was collected from mine spoil material in GS-GSA-MW-8V which correlates laterally to the screen elevation and lithology of GS-GSA-MW-3 as shown on **Figure 7**. Other elevated concentrations were typically observed in samples collected from weathered shale and mudstone intervals with healed and mineralized fractures.

The removal of lithium in these samples indicate the removal of adsorbed phases of lithium onto the aquifer solids. The SEP data, described earlier, highlights the availability of lithium from exchangeable and iron/manganese oxides phases to groundwater at the Site. Overall, SEP and SPLP data are in relatively good agreement with regards to the sorbed fraction.

6.4.7 Geologic and Hydrogeologic Cross-Correlations and Interpretation

Average lithium concentration in the earth's crust is reported as 30 mg/kg and range from 18 to 65 mg/kg (Smith and Huyck, 1999). Lithium concentrations noted at the Site are significantly higher than average crustal abundance and suggest a natural abundance of lithium in the aquifer solids. This is in good agreement with Goldhaber et al., (2000) and Diehl et al., (2004) who reported elevated concentrations of trace metals in coal-bearing strata of the Warrior Basin. These studies, focused largely on coal seams, attributed enrichment in trace metals to pyrite and clay mineral (illite/smectite) in-filling of veins and fractures. The series of maps presented in Goldhaber et al., (2000) shows Plant Gorgas in or within close proximity of a northwest-southeast trending zone of enrichment – likely along a regional fault.

Composite analysis of the data presented in the previous sections demonstrates dominate relationships between enriched lithium concentrations and increased contents of clay minerals/micas (**Table 8** and **Figure 10**) and iron oxides (**Figure 9**). This is also supported by whole rock chemistry data which shows a strong tendency for elevated lithium to occur with higher concentrations of aluminum and magnesium (**Table 8** and **Figure 9**) as these major elements are predominant in clays and micas. Excluding the MW-3V-180-190 sample, shown on **Figure 9**, the coefficient of determination (R^2) is approximately 0.86 or 86% based upon a logarithmic regression between lithium and clay mineral contents. This suggests that lithium concentrations are strongly correlated to the clay content, and thus, reflect its occurrence and association in the aquifer matrix. The GSA-MW-3V (MW-3V 180-190) sample displays elevated pyrite and iron oxides with respect to the other samples and suggests, a secondary mineral source or fraction of lithium, as indicated by the EMPA, TEMA-X, and XRF data.

These plots and data analyses demonstrates the co-occurrence of enriched lithium within clay and mica material at the Site, and highest lithium enrichment, also equally associated with secondary (e.g. iron) oxide minerals. Based on the TIMA-X and EMPA analyses, it is apparent that (1) clays and micas host lithium in the aquifer solids and, (2) weathering over an extended period, provides a secondary source of lithium in the iron/manganese oxides and easily available metals fractions in the aquifer solids. The association of lithium to clay minerals is well established in other studies (Starkey, 1987; Williams and Hervig, 2005; Hoyer, 2015; EPRI, 2018) and this is clearly demonstrated in (**Table 8** and **Figure 10)** the previous sections of this report. As described in **Section 6.2**, lithium and boron are known to be hosted by clay minerals in fine-grained sediments and shale/mudstones have been documented to be enriched in lithium (Castor and Henry, 2020).

Lithium concentrations in rocks and overburden show a distinct association with the sample lithology; higher lithium concentrations are noted in samples collected from the coal seams, mine spoils, and shale/mudstone units compared to the sandstone or sandstone interlayered with shale units. **Figure 7** shows the lithium concentration data for aquifer solids and groundwater presented on the lithologic cross-section through wells with historical lithium SSLs.

Because the uppermost aquifer (saturated zone) occurs in the overburden consisting of mine spoils or in coal seams in the upper bedrock (since the coal seams provide preferential pathways for groundwater flow), the detection wells are often screened in these lithologies that are a source for lithium. Higher lithium concentrations in aquifer solids are noted in GS-GSA-MW-3V and GS-GSA-MW-3, and GS-GSA-MW-4, whereas the lowest lithium concentrations are noted deeper in the sandstone bedrock. While there is a reduction in lithium concentration in the underlying sandstone bedrock, lithium is still slightly enriched, likely because of the geologic setting of the Site and longer residence time of deeper, older groundwater.

Elevated lithium in groundwater appears to correspond with elevated lithium concentrations in Site geologic materials. Groundwater samples collected during the January 2022 sampling event from wells with screen intervals that correspond to the mine spoils to bedrock interface exhibited elevated lithium concentrations (0.671 mg/L in GS-GSA-MW-4 and 0.31 mg/L in GS-GSA-MW-3), and mine spoil rock samples from GS-GSA-MW-8V exhibited total lithium concentrations of 243 to 367 mg/kg. The groundwater sample collected from GS-GSA-MW-3V exhibited a lithium concentration of 0.347 mg/L and the corresponding rock sample collected from the same interval exhibited a concentration of 299 mg/kg, likely due to the presence of the Gillepsy coal seam. Higher lithium concentrations in groundwater are observed in wells with screen intervals that intercept or are proximal to mine spoils, coal seams, or highly weathered shale, while lower concentrations are observed in screen intervals that intercept sandstone and other lithologies at the site. The same pattern is observed in rock samples where higher concentrations of lithium are observed in samples collected from or proximal to mine spoils (MW-8V-81-14, MW-8V-94-97), coal seams (MW-3V-180-190) and lower concentrations are associated with other lithologies.

Additionally, the three wells and piezometers with highest observed lithium concentrations (GS-GSA-PZ-17, GS-GSA-MW-4, GS-GSA-MW-14H) exhibit three of the five lowest pH wells at the site and three of the five highest oxidation reduction potential (ORP) averages at the site, matching SEP results where lithium was naturally available in the exchangeable fraction (i.e., mobilized under low pH) and the oxidizable (iron-manganese) fraction (i.e., mobilized by oxidation). **Figure 14, Lithium vs. pH & ORP**,

shows many wells with elevated average lithium concentrations at the site also exhibit elevated average pH and ORP.

6.5 Alternate Source Demonstration Summary

Using the data discussed in **Sections 6.1** through **6.4**, we conclude the source of lithium in groundwater at Gorgas Gypsum Pond as natural in aquifer solids, including mine spoils, coal seams, and weather mudstone and shale. Our conclusions are summarized in in **Table 13, ASD Summary**.

The following lines of evidence demonstrate the absence of a CCR source signature in Site groundwater:

1. If the Gypsum Pond was the source of lithium in groundwater, logic dictates that lithium concentrations in leachate to be equal to or greater than the concentrations observed in groundwater. However, lithium occurs at low concentration (0.033 mg/L) in the Gypsum Pond leachate, significantly lower than lithium concentrations in site monitoring wells exhibiting SSLs or exceedances (0.262 to 0.671 mg/L) at the Site.
2. The boron isotopic composition of Site groundwater is comparable to the compositions reported in groundwater recharged by meteoric water, as indicated by positive (enriched) $\delta^{11}B$ signatures in Site groundwater. A CCR signature, in contrast, would show a depleted (negative) $\delta^{11}B$ signature. The presence of dissolved oxygen in groundwater, further support the infiltration of recharge water to significant depths.
3. Boron-lithium ratios in groundwater do not correspond to the leachate source sample ratio and in most cases more closely resemble SPLP data from the rock core samples collected at the site. In instances where boron-lithium ratios do not match SPLP data from the rock core samples (GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-4V), the boron-lithium ratios do not match the CCR ratios either and thus likely reflect variable conditions as expected in groundwater flow through overburden mine spoils.

In contrast, natural occurrences of enriched lithium have been observed and confirmed by multiple methods of analyses. Each of these independent analyses agree with the results published by Goldhaber et al., (2000), Diehl et al., (2004), and Diehl et al., (2005) which document a natural enrichment of trace metals in Pottsville Strata of the Warrior Basin. Furthermore, the modes of lithium occurrence and mineralogical associations presented in this study match those presented by Williams and Hervig (2005) as well as Castor and Henry (2020). The list below summarizes the findings of naturally occurring lithium at the Site.

1. Elemental analyses of core samples demonstrate that weathered shale, mudstone, coal seams, and mine spoils at the site are the alternate sources for lithium in groundwater. These aquifer materials contain lithium at high concentrations (30 to 367 mg/kg), significantly higher than the crustal average of 30 mg/kg.
2. High resolution quantitative mineralogical analysis using TIMA-X shows clay and mica contents that occur in abundance similar to or greater than the quartz contents in the aquifer solids. EMPA confirms the abundances of clays and micas in the aquifer solids through high-resolution images and quantitative data. At the Site and geologically, clay minerals are pervasive in mudstone/claystone, shale, and as vein/cell filling minerals in coal discontinuities.
3. A comparison of lithium concentration data using LA ICP-MS on solid samples, selected and guided by EMPA data, demonstrates high lithium concentrations in clays and micas and the low (or below detection) amounts of lithium in quartz, plagioclase, and other secondary minerals.

Beyond documenting the modes, distribution, and concentration of naturally occurring lithium, this study also demonstrated that lithium is sufficiently available to mobilize into groundwater and provides an explanation for lithium concentrations observed in groundwater. The following summarizes mobilization of lithium to groundwater.

1. SPLP results indicate that lithium is (A) naturally widespread in the aquifer matrix, (B) available for dissolution and redistribution on the aquifer matrix phases due to chemical weathering of mine spoils and coal seams under moderately acidic condition, and (C) readily mobilized from iron and manganese oxides under moderately reducing condition.
2. SEP data confirms the primary source of lithium in residuals (silicate) fraction of aquifer solids. The amount of lithium in easily available and iron/manganese oxide fractions (steps 2 and 4 of SEP) are comparable to range of lithium concentrations in the dissolved groundwater.

Observations from Site data, also agree with the mobilization of lithium from naturally occurring sources. Key observations relating to these points made in the document are:

1. Lithium concentrations in groundwater appear higher in lithologic strata dominated by clay and mica mineralogy.
2. Ranges and averages for lithium in Site groundwater (range from 0.052 to 0.671 mg/L, and averages 0.318 mg/L in detection and delineation wells installed within or underneath mine

spoils) are remarkably well matched with lithium concentrations mobilized in exchangeable (F2) and oxide fractions (F4) (range from 0.100 mg/L to 0.800 mg/L and averages 0.360 mg/L).

3. The three wells and piezometers with highest observed lithium concentrations (GS-GSA-PZ-17, GS-GSA-MW-4, GS-GSA-MW-14H) exhibit the three of the five lowest pH wells at the site and three of the five highest oxidation reduction potential (ORP) averages at the site, matching SEP results where lithium was naturally available in the exchangeable fraction (i.e., mobilized under low pH) and the oxidizable (iron-manganese) fraction (i.e., mobilized by oxidation).
4. In multiple wells, boron-to-lithium ratios in Site groundwater present very similar to the boron-to-lithium ratios in leachate derived from SPLP testing on Site rock and mine spoil samples.

This report demonstrates that Gypsum is not the source of lithium to groundwater at the Site and identifies an alternate source in the aquifer solids. Detailed mineralogical data along with whole rock analysis and groundwater data indicate that weathering of clays and micas in the overburden and bedrock aquifer provide the source of lithium to secondary minerals. Dissolution from the secondary minerals facilitates the occurrence of lithium in groundwater at the Site. Occurrence of mineral jarosite in the aquifer indicates that acidic conditions were present prior to the operation of Gypsum Pond and the boron isotopic composition reflects infiltration of meteoric recharge rather than a pond source.

7.0 CONCLUSION

The evaluation presented in this report demonstrates the statistically significant levels of lithium, historically identified in groundwater, are not due to releases from the Plant Gorgas Gypsum Pond. Rather, lithium occurs naturally in aquifer solids including mine spoils, coal seams, and weathered shale/mudstone layers.

This report demonstrates that the SSLs for lithium in site monitoring wells are the result of natural variation in groundwater quality related to the presence of naturally occurring lithium in clay minerals in the aquifer solids and in the mine spoils at the site, and mobilization of lithium during subsequent weathering from the mine spoils that constitute a significant part of the subsurface overburden profile in many of these monitoring wells. Based on evaluation of Site data, lithium occurs in the overburden and bedrock aquifers at concentrations significantly above crustal abundance and groundwater conditions support the mobility of lithium from the aquifer solids into groundwater at the Site.

This ASD has been prepared in response to the identification of SSLs and GWPS for lithium during assessment monitoring. In accordance with 40 CFR § 257.95 (g)(3)(ii) and r. 335-13-15-.06(6)(g)4.(ii), this ASD demonstrates that the exceedances are not the result of a release from the Gorgas Gypsum Pond. Therefore, routine groundwater monitoring should continue at the Site and no further action, such as implementing corrective action or further delineation in these areas, is necessary.

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Tables

Table 1, Occurrence of Lithium & Boron in Pottsville Coal Seams

Data Source	Lithium (ppm)			Boron (ppm)		
	Minimum	Maximum	Consensus	Minimum	Maximum	Average
Pottsville Coal Seams	1	128	28	6.3	83.6	35
Crustal Abundance	18	65	8	3.0	50.0	10

Notes:

1. Pottsville coal seams data from the United States Geological Survey (USGS) National Coal Data System (NRCDS). Includes 75 samples from the Pratt, Nickel Plate, and American coal seams.

2. Crustal abundance values from Smith, K.S. and Huyck, H.L.O, 1999, An Overview of the Abundance, Relative Mobility, Bioavailability, and Human Toxicity of Metals, Table 2.8, pg. 40.

Table 2, Monitoring Well Network Details

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)
GS-GSA-MW-3	Downgradient	Pottsville	33.65344	-87.21650	439.75	442.63	129.68	323.35	313.35	10.00
GS-GSA-MW-4	Downgradient	Pottsville	33.65376	-87.21617	439.44	442.10	107.86	344.64	334.64	10.00
GS-GSA-MW-12H	Vertical Delineation	Pottsville	33.65216	-87.21777	396.73	399.73	67.50	342.23	332.23	10.00
GS-GSA-MW-3V	Vertical Delineation	Pottsville	33.65339	-87.21655	439.60	442.68	192.65	260.43	250.43	10.00
GS-GSA-MW-9V	Vertical Delineation	Pottsville	33.65075	-87.21589	333.32	336.22	95.07	251.55	241.55	10.00
GS-GSA-MW-14H	Horizontal Delineation	Overburden-Pottsville	33.65154	-87.21816	400.86	403.66	28.50	385.56	375.56	10.00

Notes:

1. ft - feet
2. NAVD - elevation in feet, referenced to North American Vertical Datum
3. BTOC - feet below top of casing
4. Coordinates have been transformed into WGS 84 from NAD 27/83

Table 3, Parameters and Methods

Appendix III Parameters		
Parameters	**Analytical Methods**	**Units of Measure**
Boron	EPA 200.7	mg/L
Calcium	EPA 200.7	mg/L
Chloride	SM4500Cl E	mg/L
Fluoride	SM4500F G 2017	mg/L
pH_Field	Field Sampling	SU
Sulfate	SM4500SO4 E 2011	mg/L
TDS	NA	mg/L
Appendix IV Parameters		
Parameters	**Analytical Methods**	**Units of Measure**
Antimony	EPA 200.8	mg/L
Arsenic	EPA 200.8	mg/L
Barium	EPA 200.8	mg/L
Beryllium	EPA 200.8	mg/L
Cadmium	EPA 200.8	mg/L
Chromium	EPA 200.8	mg/L
Cobalt	EPA 200.8	mg/L
Lead	EPA 200.8	mg/L
Lithium	EPA 200.7	mg/L
Mercury	EPA 245.1	mg/L
Molybdenum	EPA 200.8	mg/L
Selenium	EPA 200.8	mg/L
Thallium	EPA 200.8	mg/L
Combined Radium 226 + 228	Total Radium Calculation	pCi/L
MNA-Specific Parameters		
Parameters	**Analytical Methods**	**Units of Measure**
Alkalinity (total as $CaCO_3$)	SM 2320 B	mg/L
Aluminum (total and dissolved)	EPA 200.8	mg/L
Bicarbonate Alkalinity (calculated)	SM 4500CO2 D	mg/L
Carbonate Alkalinity (calculated)	SM 4500CO2 D	mg/L
Iron (total and dissolved)	EPA 200.7	mg/L
Magnesium (dissolved)	EPA 200.7	mg/L
Manganese (total and dissolved)	EPA 200.8	mg/L
Nitrogen Nitrate/Nitrite	EPA 353.2	mg/L
Potassium (dissolved)	EPA 200.8	mg/L
Silica (dissolved)	EPA 200.7	mg/L
Sodium (dissolved)	EPA 200.7	mg/L
Sulfide	SM 4500-S2	mg/L
Total Organic Carbon	SM 5310 B	mg/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, 5310 – 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
10. Leachate sample was not analyzed for combined radium.

Table 4, Boron Isotope Results

Well ID	Date Collected	Hydraulic Location	Boron (Total)	$\delta^{11}B$	Indicated Source
			mg/L	‰	
GS-GSA-MW-3	7/14/2021	Downgradient	1.47	14.4	Meteoric
GS-GSA-MW-4	7/14/2021	Downgradient	4.78	2.8	Water-Rock Interaction, Clay-Mineral Dissolution
GS-GSA-MW-8	7/14/2021	Downgradient	2.07	33.6	Meteoric
GS-GSA-MW-3V	7/15/2021	Vertical Delineation	3.04	25.3	Meteoric
GS-GSA-MW-4V	7/14/2021	Vertical Delineation	3.68	-2.6	Clay-Mineral Dissolution, Coal/Mine Spoils
GS-GSA-MW-9H	7/13/2021	Horizontal Delineation	5.84	0	Water-Rock Interaction, Clay-Mineral Dissolution
GS-GSA-MW-12H	7/14/2021	Horizontal Delineation	0.0742	8.8	Meteoric
GS-GSA-MW-14H	7/13/2021	Horizontal Delineation	0.139	11.6	Meteoric

Notes:

1. Site data collected from the Gorgas Gypsum Pond during the second semi-annual sampling event of 2021

2. $\delta^{11}B$ - isotopic boron

3. Indicated Source based on Bassett and Davidson, 1997, Nigro et al., 2016, Ruhl et al. 2014, Williams and Hervig 2014, Noireaux et al., 2020, and mineralogical analysis conducted by SGS. The source indicated reflects a range of δ11B, with enriched positive values reflecting meteoric signature and relatively lower δ11B reflecting increased groundwater interaction and mineral dissolution. Depleted δ11B (i.e., <-5) indicate increasing influence of CCR source due to increased partitioning of the lighter isotope.

Table 5, Core Sample Description Summary

Sample ID	Sample Interval (ft bgs)	Ground Surface Elevation (NAVD)	Sample Interval (NAVD)	Well Screen Interval (NAVD)	Sample Description
MW-3V-170-180	170 - 180	439.60	269.6 - 259.60	260.43 - 250.43	Weathered shale and mudstone, just above MW-3V well screen
MW-3V-180-190	180 - 190	439.60	259.6 - 249.60	260.43 - 250.43	Highly weathered shale, mudstone, and sandstone, healed fractures, within MW-3V well screen
MW-4V-130-140	130 - 140	439.29	309.29 - 299.29	207.08 - 287.08	Weathered shale and mudstone, within MW-4V well screen
MW-4V-140-150	140 - 150	439.29	299.29 - 289.29	207.08 - 287.08	Weathered shale and mudstone, within MW-4V well screen
MW-8V-81-84*	81 - 84	401.24	320.24 - 317.24	256.33 - 246.33	Mine spoils containing coal, shale, wood fragments, approx. 30 feet above MW-8 well screen
MW-8V-94-97	94 - 97	401.24	307.24 - 304.24	256.33 - 246.33	Mine spoils containing coal, shale, wood fragments, approx. 20 feet above MW-8 well screen
MW-8V-155-160	155 - 160	401.24	246.24 - 241.24	256.33 - 246.33	Weathered shale and mudstone, at bottom of MW-8V well screen
MW-8V-160-165	160 - 165	104.24	241.24 - 236.24	256.33 - 246.33	Weathered shale and mudstone, just below MW-8V well screen
MW-9H-40-50	40 - 50	333.04	293.04 - 283.04	285.94 - 275.94	Weathered shale and mudstone, within MW-9H well screen
MW-9H-50-60	50 - 60	333.04	283.04 - 273.04	285.94 - 275.94	Weathered shale, mudstone, and sandstone, healed fractures, within MW-9H well screen
MW-12H-60-64	60 - 64	396.73	336.73 - 332.73	342.23 - 332.23	Weathered shale and mudstone, within MW-12H well screen
MW-12V-120-130	120 - 130	376.76	256.73 - 246.73	257.16 - 247.16	Weathered shale, mudstone, and sandstone, healed fractures, within MW-12V well screen

Notes:

1. ft - feet
2. NAVD - elevation in feet, referenced to North American Vertical Datum
3. bgs - below ground surface
4. Samples selected from available core and sampled on 12/9/2021
5. * - sample interval and geologic material also corresponds to GS-GSA-MW-3 well screen (approximately 313 - 323 ft NAVD)

Table 6, Core Sample Analysis Summary

Sample ID	Metals by Aqua Regia	Metals by Multi-Acid Digestion	SPLP	WRA & XRF	XRD	SEP	Mineralogy
MW-3V-170-180	X	X	X	X	X		
MW-3V-180-190	X	X	X	X	X	X	X
MW-4V-130-140	X	X	X	X	X	X	X
MW-4V-140-150	X	X	X	X	X		
MW-8V-81-84	X	X	X	X	X	X	X
MW-8V-94-97	X	X	X	X	X		
MW-8V-155-160	X	X	X	X	X	X	X
MW-8V-160-165	X	X	X	X	X		
MW-9H-40-50	X	X	X	X	X	X	X
MW-9H-50-60	X	X	X	X	X		
MW-12H-60-64	X	X	X	X	X	X	X
MW-12V-120-130	X	X	X	X	X		

Notes:

1. Metals by aqua regia - solid fraction of the sample submitted to aqua regia digestion which releases elements absorbed to clay particle or iron/manganese oxides.

2. Metals by multi-acid digestion - near-total metals analysis whereby the amount of particular elements in a sample can be determined.

3. SPLP - Synthetic Precipitation Leaching Procedure by EPA Method 1312 is an extraction test that can determine the mobility of constituents under acidic conditions.

4. WRA & XRF - Whole Rock Analysis is completed by X-Ray Fluorescence spectroscopy to look at the elemental composition of the sample

5. XRD - X-Ray Diffraction provides the composition of the rock by identified crystalline minerals in weight percent.

6. SEP - Sequential extraction procedures are used to determine the metals associated with various solid phases (i.e., iron/manganese oxides).

7. Mineralogy - determined using TESCAN Integrated Mineral Analyzer Scan (TIMA) with four x-ray analysis modes and electron microprobe analysis

Table 7, Gypsum Pond Leachate & Groundwater Results Comparison

Sample ID	Sample Description	Lithium Concentration (mg/L)			
		Minimum	Average	Maximum	Recent
GS-GSA-SP-1	Leachate (Emergency Storage Pond)	--	--	--	<0.007105
GS-GSA-SP-2	Leachate (Clear Pool)	--	--	--	0.0299
GS-GSA-SP-3	Leachate (Sedimentation Pond)	--	--	--	0.0330
GS-GSA-MW-3	Downgradient Well	0.285	0.439	0.533	0.285
GS-GSA-MW-4	Downgradient Well	0.0556	0.299	0.647	0.647
GS-GSA-MW-3V	Vertical Delineation Well	0.309	0.399	0.460	0.352
GS-GSA-MW-9V	Vertical Delineation Well	0.327	0.381	0.424	0.327
GS-GSA-MW12H	Horizontal Delineation Well	0.394	0.432	0.456	0.395
GS-GSA-MW14H	Horizontal Delineation Well	0.426	0.498	0.540	0.426

Notes:

1. All units in milligrams per liter (mg/L)
2. Minimum, average, maximum concentrations derived from data collected 2016 to present
3. Recent monitoring well data collected January 2022
4. Leachate data collected October 2021
5. Sample GS-GSA-SP-3 is most representative of source

Table 8, Total Lithium Concentrations & Clay Mineral Abundance Summary

Sample ID	Clay Mineral Abundance (weight %)			Total Aluminum Concentration (%)	Total Magnesium Concentration (%)	Total Iron Concentration (%)	Total Manganese Concentration (mg/kg)	Total Lithium Concentration (mg/kg)
	Clays Abundance (weight %)	Micas	Total Clay					
MW-3V-170-180	47.46	14.22	61.7	11.7	1.6	7.1	1,196.0	97
MW-3V-180-190	18.17	9.55	27.7	8.0	0.3	4.6	161.0	299
MW-4V-130-140	26.79	15.12	41.9	10.1	1.3	5.6	667.0	69
MW-4V-140-150	26.42	15.33	41.8	9.8	1.3	6.1	936.0	67
MW-8V-81-84	51.11	37.79	88.9	11.3	0.7	3.0	93.0	367
MW-8V-94-97	43.38	24.68	68.1	7.8	0.4	3.2	171.0	243
MW-8V-155-160	34.33	18.99	53.3	11.9	1.6	6.2	694.0	72
MW-8V-160-165	12.58	13.75	26.3	8.7	1.2	5.0	542.0	50
MW-9H-40-50	17.10	12.94	30.0	9.1	1.0	4.5	264.0	128
MW-9H-50-60	4.54	5.57	10.1	5.4	0.7	3.0	504.0	30
MW-12H-60-64	17.21	14.11	31.3	9.5	1.2	6.6	1,029.0	56
MW-12V-120-130	16.50	13.01	29.5	8.2	1.1	5.3	706.0	52

Notes:

1. Clay mineral abundance consisting of clay minerals (i.e., kaolinite, illite, etc.) and micas (i.e., muscovite, biotite, etc.) determined by TIMA-X
2. Total aluminum, magnesium, iron, manganese, and lithium concentrations from multi-acid digestion of total rock sample and analysis by ICP-MS
3. mg/kg - milligram per kilogram

Table 9, XRD Results

Mineral	MW-3V-170-180 (wt %)	MW-3V-180-190 (wt %)	MW-4V-130-140 (wt %)	MW-4V-140-150 (wt %)	MW-8V-81-84 (wt %)	MW-8V-94-97 (wt %)	MW-8V-155-160 (wt %)	MW-8V-160-165 (wt %)	MW-9H-40-50 (wt %)	MW-9H-50-60 (wt %)	MW-12H-60-64 (wt %)	MW-12V-120-130 (wt %)
Quartz	36.3	56	42.2	39.1	24.5	43	33.8	42.8	54.2	57.8	43.6	40.2
Muscovite	22.9	8.9	11.9	12.8	15.2	8.4	22	16.6	8.9	5.3	15.7	15.8
Kaolinite	6.5	8.9	5.8	6.2	23	11.3	5.8	4.4	5.6	4.7	10.6	8
Chamosite	9.3	-	10.9	11.7	-	-	11.4	8.6	9	7.5	7.5	9
Clinochlore	-	0.5	-	-	5	6.2	-	-	-	-	-	-
Biotite	4.2	-	1.7	1.9	-	-	1.7	1.3	-	-	-	-
Microcline	3.7	4.7	10.3	11	6.9	10.2	10.4	7.7	7.8	5.8	6.5	7.9
Albite	9.9	9.6	9.5	10.9	3.1	6.3	10	14	9.7	15.1	10.2	12.3
Jarosite	-	-	-	-	14.2	7	-	-	2.6	-	-	-
Pyrite	-	6.5	2.6	1.2	3.6	2.6	1.3	1	1.3	-	-	-
Gypsum	-	1.2	1.2	1.3	2.8	4.2	-	-	-	-	0.6	-
Siderite	3.6	1.8	1	1.1	-	-	1	0.7	-	-	1.6	1.9
Rutile	0.9	1.1	1	1.1	1.6	0.8	1	0.7	0.9	0.8	0.8	0.9
Fluorapatite	2.6	-	-	1.7	-	-	-	-	-	-	1.9	2.3
Actinolite	-	-	-	-	-	-	1.5	1.2	-	-	-	-
Calcite	-	-	1.1	-	-	-	-	0.8	-	3	-	1.7
Lizardite	-	0.9	-	-	-	-	-	-	-	-	1.1	-
Calcite magnesian	-	-	0.8	-	-	-	-	-	-	-	-	-
TOTAL	99.9	100.1	100	100	99.9	100	99.9	99.8	100	100	100.1	100

Notes:

1. wt % - weight percent
2. XRD - X-ray diffraction

Table 10, EMPA & TIMA-X Modals Summary

Mineral	MW-3V-170-180	MW-3V-180-190	MW-4V-130-140	MW-4V-140-150	MW-8V-81-84	MW-8V-94-97	MW-8V-155-160	MW-8V-160-165	MW-9H-40-50	MW-9H-50-60	MW-12H-60-64	MW-12V-120-130
	%	%	%	%	%	%	%	%	%	%	%	%
Pyrite	0.102	3.251	2.137	0.622	2.625	3.711	0.434	0.391	0.783	0.136	0.366	0.16
Other Sulphides	0.016	0.003	0.011	0.013	0.021	0.011	0.035	0.026	0.005	0.009	0.014	0.008
Quartz	24.659	54.65	37.841	39.555	5.2	19.612	28.544	48.667	53.513	72.152	47.139	48.318
Other Silicates	0.215	0.382	0.205	0.229	0.722	0.466	0.135	0.158	0.594	0.213	0.331	0.316
Plagioclase	8.177	7.24	9.602	9.721	1.024	3.339	10.622	14.757	7.95	10.404	9.78	10.569
K-Feldspar	0.198	2.609	1.056	0.743	0.023	0.151	0.669	1.476	0.372	0.095	1.329	1.457
Micas	14.216	9.552	15.124	15.333	37.789	24.68	18.991	13.748	12.942	5.57	14.111	13.009
Chlorites	3.87	0.244	3.627	5.687	0.7	2.558	4.697	5.535	5.794	3.075	6.351	5.922
Clays	47.456	18.171	26.785	26.417	51.107	43.378	34.329	12.583	17.101	4.541	17.212	16.495
Amphiboles	0.057	0.002	0.024	0.029	0.013	0.005	0.046	0.03	0.012	0.016	0.018	0.041
Pyroxenes	0	0.007	0.002	0.003	0.005	0.004	0.001	0.005	0.004	0.002	0.008	0.003
Fe-Oxides	0.212	3.223	0.27	0.484	0.02	0.535	0.376	0.347	0.014	1.054	2.473	0.65
Other Oxides	0.361	0.622	0.492	0.518	0.1	0.379	0.459	0.654	0.696	0.681	0.582	0.609
Carbonates	0.331	0.015	2.454	0.469	0.035	0.063	0.403	1.278	0.018	1.852	0.045	2.221
Sulphates	0.002	0.004	0.037	0.001	0.47	0.787	0.01	0	0.008	0	0.022	0.007
Organic Carbon	0	0	0	0	0	0	0	0	0	0.001	0.001	0.001
Apatite	0.108	0.002	0.279	0.152	0.043	0.137	0.22	0.307	0.125	0.177	0.178	0.183
Other	0.021	0.023	0.053	0.024	0.103	0.184	0.028	0.039	0.07	0.022	0.04	0.03
Total	100.001	100	99.999	100	100	100	99.999	100.001	100.001	100	100	99.999

Notes:

1. EMPA - electron microprobe analysis
2. TIMA-X - TESCAN Integrated Mineral Analyzer
3. Abundances reported in percent (%)

Table 11, Lithium SEP Results Summary

SEP Stage	Units	MW-3V-180-190	MW-9H-40-50	MW-8V-81-84	MW-8V-155-160	MW-4V-130-140	MW-12H-60-64	Average
Stage 1 - Water Soluble	mg/kg	< 0.0945	< 0.0945	< 0.0945	< 0.0945	< 0.0945	< 0.0945	<0.0945
	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<0.1
Stage 2 - Exchangeable Metals	mg/kg	0.1876	0.1839	0.4631	0.0274	0.0279	0.0369	0.1545
	mg/L	0.200	0.200	0.500	0.030	0.030	0.040	0.1667
Stage 3 - Metals Bound to Carbonates	mg/kg	0.0658	0.0162	0.0160	0.0258	0.0281	0.0199	0.0286
	mg/L	0.070	0.017	0.017	0.027	0.030	0.021	0.0303
Stage 4 - Metals Bound to Fe & Mn Oxides	mg/kg	0.2823	0.2815	0.2816	0.0953	0.0960	0.0572	0.1823
	mg/L	0.300	0.300	0.300	0.100	0.100	0.060	0.1933
Stage 5 - Metals Bound to Organics	mg/kg	0.0878	0.0776	0.0981	0.0671	0.0677	0.0385	0.0728
	mg/L	0.090	0.080	0.100	0.070	0.070	0.040	0.075
Total Stage 1 through 5	mg/kg	0.6235	0.5592	0.8588	0.2156	0.2197	0.1525	0.4382
	mg/L	0.660	0.597	0.917	0.227	0.230	0.161	0.465
Total Exchangeable & Fe/Mn Oxide Fractions	mg/kg	0.4699	0.4654	0.7447	0.1227	0.1238	0.0941	0.3368
	mg/L	0.500	0.500	0.800	0.130	0.130	0.100	0.360
Residual Metals	mg/kg	250	97	286	55	53	47	131

Notes:

1. Lithium concentrations provided in both milligram per liter (mg/L) and milligram per kilogram (mg/kg) for each stage
2. Fe - iron, Mn - manganese
3. Tessier extraction technique used for sequential extraction

Table 12, SPLP Results

Sample ID	Sample Interval (ft bgs)	Ground Surface Elevation (NAVD)	Sample Interval (NAVD)	Lithium Concentrations (mg/L)
MW-3V-170-180	170 - 180	439.60	269.6 - 259.60	0.0055
MW-3V-180-190	180 - 190	439.60	259.6 - 249.60	0.134
MW-4V-130-140	130 - 140	439.29	309.29 - 299.29	0.0079
MW-4V-140-150	140 - 150	439.29	299.29 - 289.29	0.0048
MW-8V-81-84	81 - 84	401.24	320.24 - 317.24	0.199
MW-8V-94-97	94 - 97	401.24	307.24 - 304.24	0.0536
MW-8V-155-160	155 - 160	401.24	246.24 - 241.24	0.0019
MW-8V-160-165	160 - 165	104.24	241.24 - 236.24	0.0019
MW-9H-40-50	40 - 50	333.04	293.04 - 283.04	0.136
MW-9H-50-60	50 - 60	333.04	283.04 - 273.04	0.00108
MW-12H-60-64	60 - 64	396.73	336.73 - 332.73	0.00514
MW-12V-120-130	120 - 130	376.76	256.73 - 246.73	0.00225

Notes:

1. ft - feet
2. NAVD - elevation in feet, referenced to North American Vertical Datum
3. bgs - below ground surface
4. Samples selected from available core and sampled on 12/9/2021
5. Extraction fluid pH = 4.20, test time = 18 hours, leachate analyzed for total metals by ICP-MS

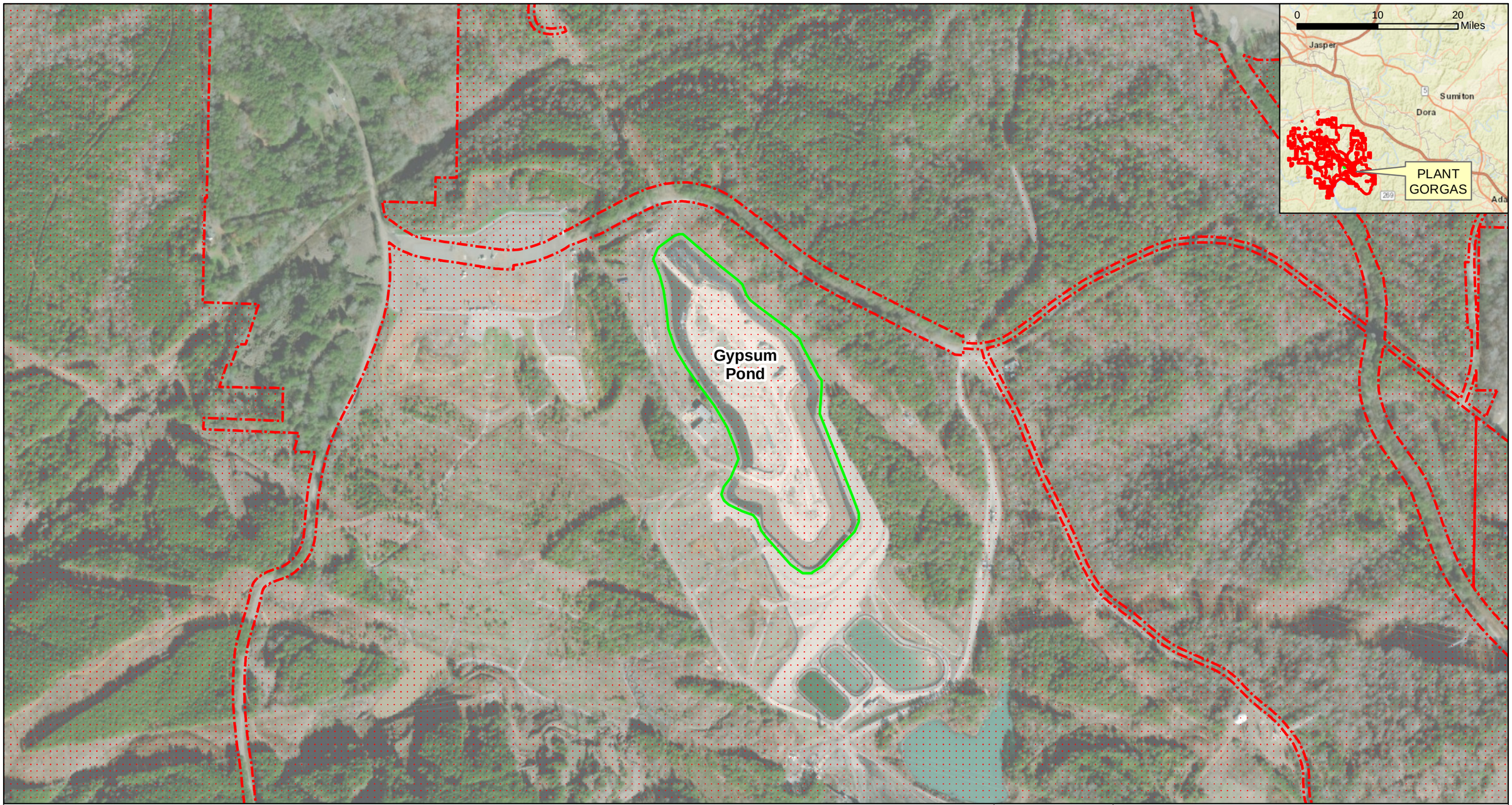
Table 13, ASD Summary

Line of Evidence	Gypsum Pond Source Potential	Boron Isotopic Signature	Lithium Trends and Correlations	Alternate Sources of Lithium	Availability of Lithium
Well Location	Lithium concentrations in Gypsum Pond leachate (0.033 mg/L) are much lower than the background derived GWPS (0.419 mg/L) and lithium concentrations observed in site groundwater. Therefore, the Gypsum Pond is an unlikely source for elevated lithium in groundwater.	Positive/enriched $\delta^{11}B$ signatures indicate meteoric source; lower values likely indicate water-rock interaction and clay-mineral dissolution. Depleted values ($\delta^{11}B$<-5‰) are not observed at the site.	Lithium concentrations exhibit natural variability in response temporal changes in groundwater flow and chemistry. Additionally, lithium concentrations do not show specific correlations with CCR indicator parameters.	Analysis of core samples show weathered shale/mudstone, coal seams, and mine spoils contain elevated lithium concentrations (30 to 367 mg/kg), much higher than the crustal average of 30 mg/kg, and that lithium primarily occurs in clay/mica minerals which are abundant at the site.	SPLP, SEP, and groundwater results indicate lithium is widespread at the site primarily in the exchangeable and oxide fractions, available for dissolution through weathering of mine spoils and clay minerals under moderately low pH conditions, and readily mobilized from iron and manganese oxides under moderately reducing conditions.
GS-GSA-MW-3	✓	✓	✓	✓	✓
GS-GSA-MW-4	✓	✓	✓	✓	✓
GS-GSA-MW-3V	✓	✓	✓	✓	✓
GS-GSA-MW-9V	✓	No Sample Available	✓	✓	✓
GS-GSA-MW-12H	✓	✓	✓	✓	✓
GS-GSA-MW14H	✓	✓	✓	✓	✓

Notes:

1. Li - lithium, B - boron
2. mg/L - milligram per liter, mg/kg - milligrams per kilogram
3. GWPS - groundwater protection standard
4. SPLP - synthetic precipitation leaching procedure
5. SEP - sequential extraction procedure

Figures



Legend

- Gypsum Pond Boundary
- Property Boundary (Approximate)

N

0 500 1,000 2,000 Feet

SCALE	1:6,000
DATE	11/10/2020
DRAWN BY	KWR
CHECKED BY	GBD

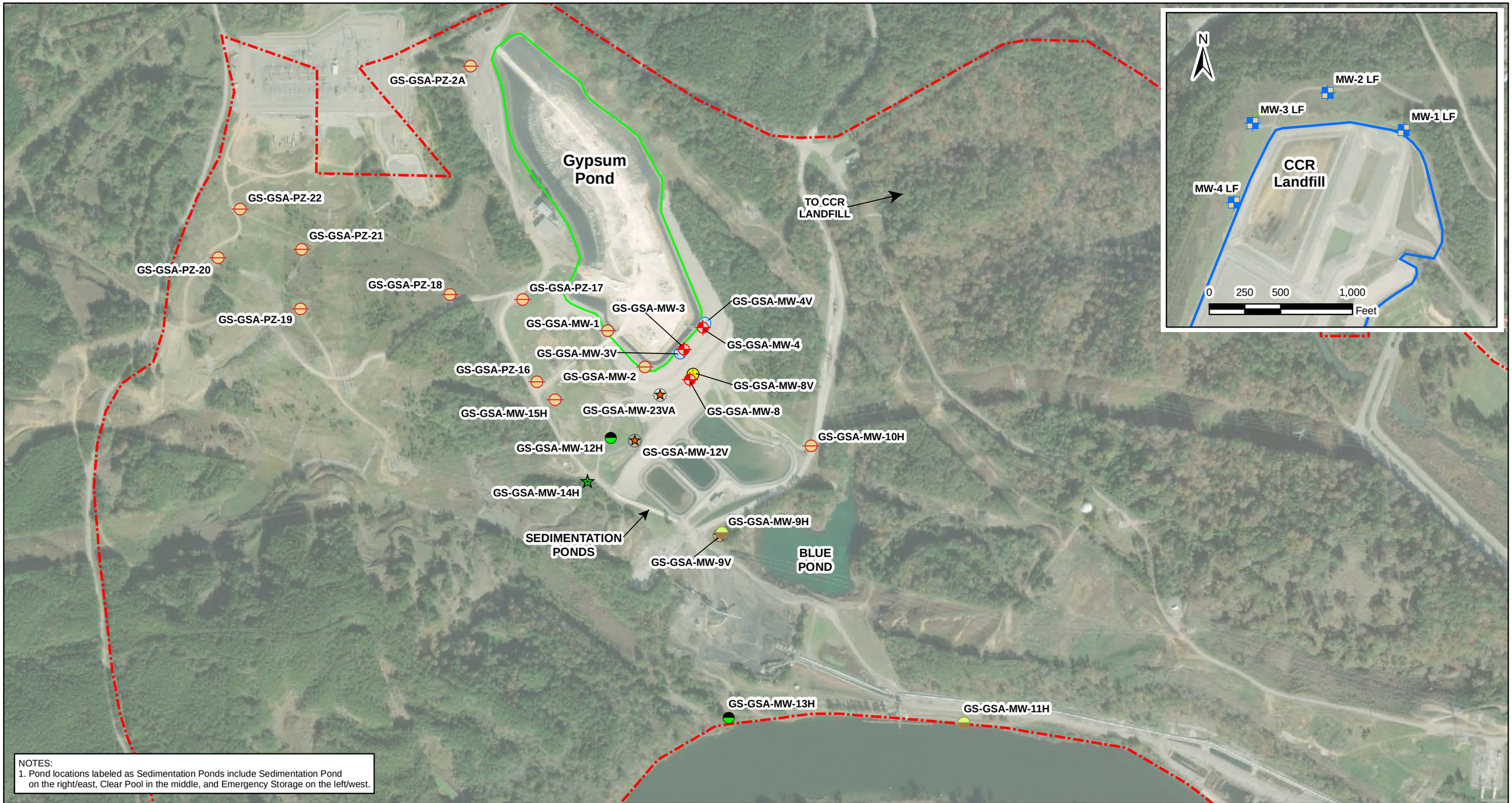
DRAWING TITLE

SITE LOCATION MAP
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 1

Southern Company



NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Piezometer; Piezometer
- Phase I Horizontal Delineation Well
- Phase II Horizontal Delineation Well
- Phase III Horizontal Delineation Well
- Phase I Vertical Delineation Well
- Phase II Vertical Delineation Well
- Phase III Vertical Delineation Well
- Upgradient Monitoring Well
- Property Boundary (Approximiate)
- Gypsum Pond Boundary
- Gypsum CCR Landfill Boundary

N

0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

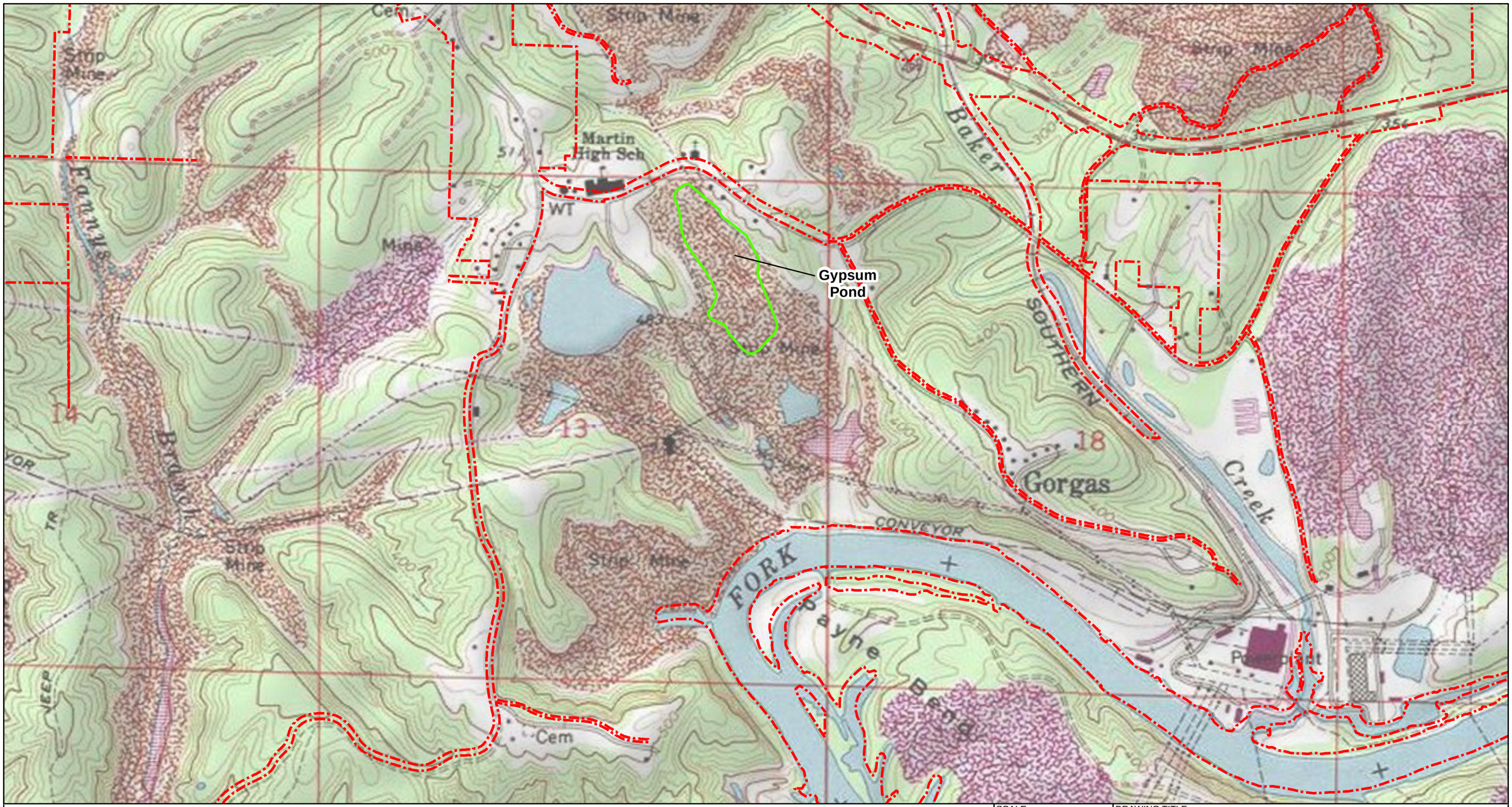
DRAWING TITLE

MONITORING WELL LOCATION MAP PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 2

Southern Company



Legend

- Gypsum Pond Boundary
- Property Boundary (Approximate)

N

0 1,000 2,000 4,000 Feet

SCALE	1:12,000
DATE	11/10/2020
DRAWN BY	KWR
CHECKED BY	GBD

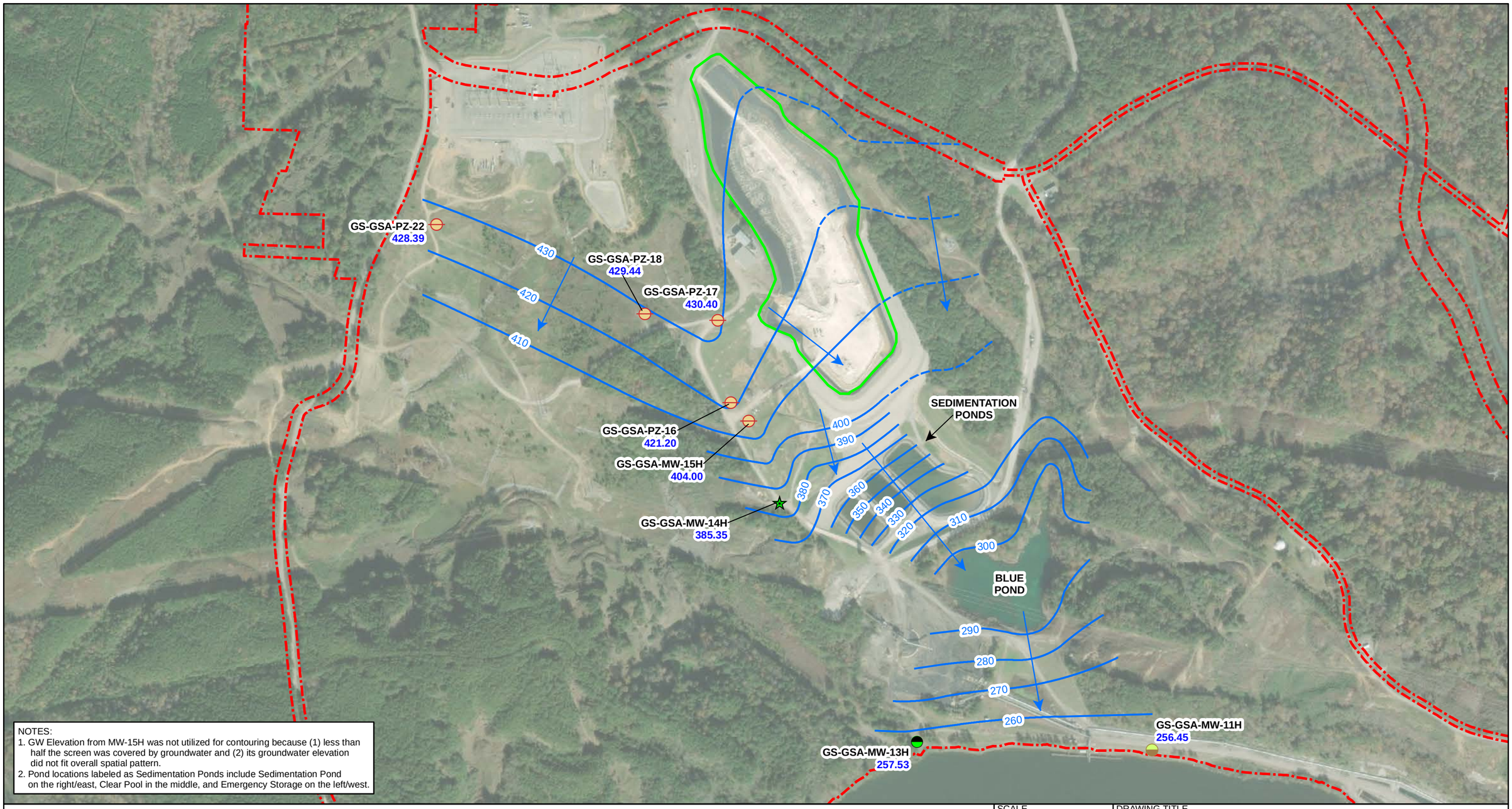
DRAWING TITLE

SITE TOPOGRAPHIC MAP
PLANT GORGAS GYPSUM POND

FIGURE NO

FIGURE 3

Southern Company



NOTES:
1. GW Elevation from MW-15H was not utilized for contouring because (1) less than half the screen was covered by groundwater and (2) its groundwater elevation did not fit overall spatial pattern.
2. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Phase I Horizontal Delineation Well
- Phase II Horizontal Delineation Well
- Phase III Horizontal Delineation Well
- Piezometer

GS-GSA-PZ-17 Well ID
430.40 Groundwater Elevation

- Potentiometric Surface Contour (ft NAVD88)
- Inferred Potentiometric Surface Contour (ft NAVD 88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximate)
- Gypsum Pond Boundary

N

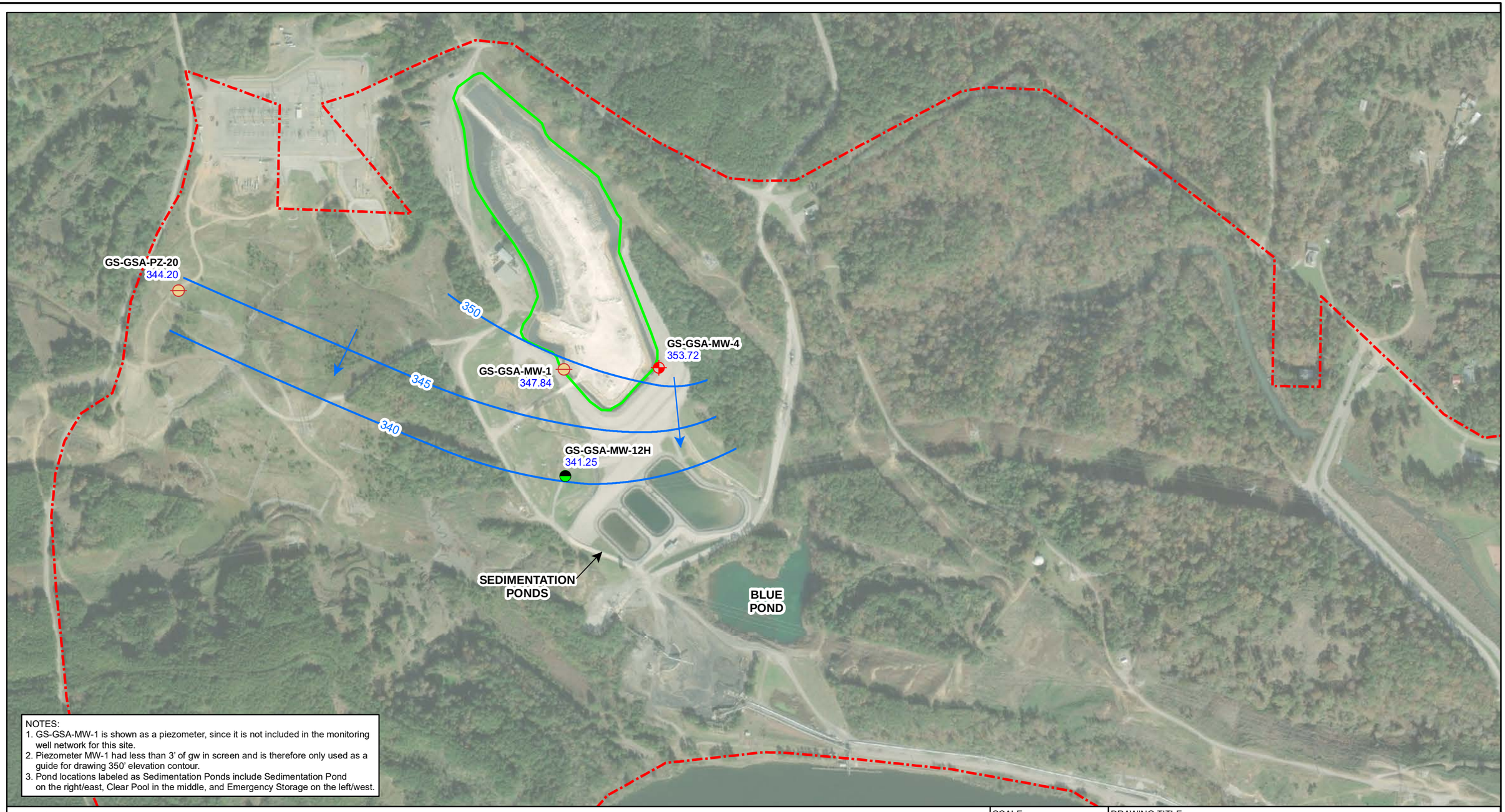
0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
WATER TABLE
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 4A

Southern Company



NOTES:
1. GS-GSA-MW-1 is shown as a piezometer, since it is not included in the monitoring well network for this site.
2. Piezometer MW-1 had less than 3' of gw in screen and is therefore only used as a guide for drawing 350' elevation contour.
3. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Piezometer
- Phase II Horizontal Delineation Well

GS-GSA-MW-4 Well ID
353.72 Groundwater Elevation

- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
INTERMEDIATE FLOW SYSTEM 1
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 4B

Southern Company

NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Piezometer
- **GS-GSA-MW-2** Well ID
  334.91 Groundwater Elevation
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
INTERMEDIATE FLOW SYSTEM 2
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 4C

Southern Company

GS-GSA-PZ-19
343.53

GS-GSA-MW-4V
328.76

GS-GSA-MW-8
326.9

SEDIMENTATION
PONDS

GS-GSA-MW-9H
291.76

BLUE
POND

340
330
320
310
300
290

NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Downgradient Monitoring Well
- Piezometer
- Phase I Horizontal Delineation Well
- Phase I Vertical Delineation Well

GS-GSA-MW-9H Well ID
291.76 Groundwater Elevation

- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

0 250 500 1,000 1,500 Feet

SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
INTERMEDIATE FLOW SYSTEM 3
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 4D

Southern Company

GS-GSA-MW-3V
318.90

GS-GSA-MW-8V
317.98

SEDIMENTATION PONDS

318

310

300

290

GS-GSA-MW-12V
317.91

GS-GSA-MW-9V
291.44

BLUE POND

NOTES:
1. Pond locations labeled as Sedimentation Ponds include Sedimentation Pond on the right/east, Clear Pool in the middle, and Emergency Storage on the left/west.

Legend

- Phase I Vertical Delineation Well
- Phase II Vertical Delineation Well
- Phase III Vertical Delineation Well

GS-GSA-MW-3V Well ID
318.90 Groundwater Elevation

- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Property Boundary (Approximiate)
- Gypsum Pond Boundary

N

0 250 500 1,000 1,500 Feet

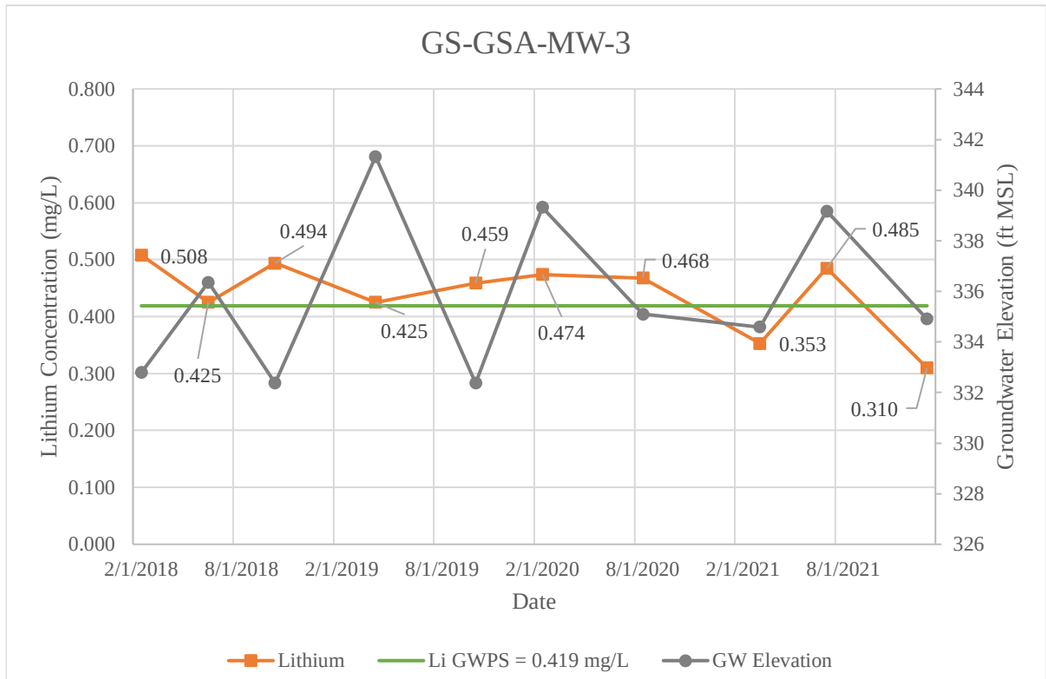
SCALE	1:6,000
DATE	6/8/2022
DRAWN BY	KAR
CHECKED BY	RFS

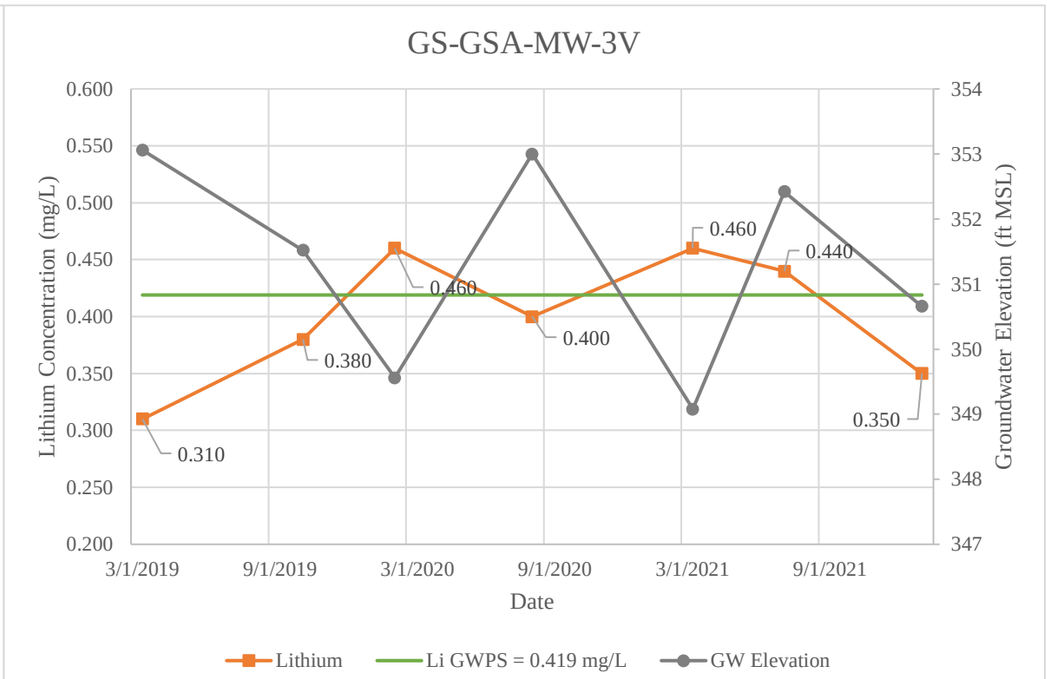
DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JANUARY 24, 2022
DEEP INTERVAL
PLANT GORGAS GYPSUM POND

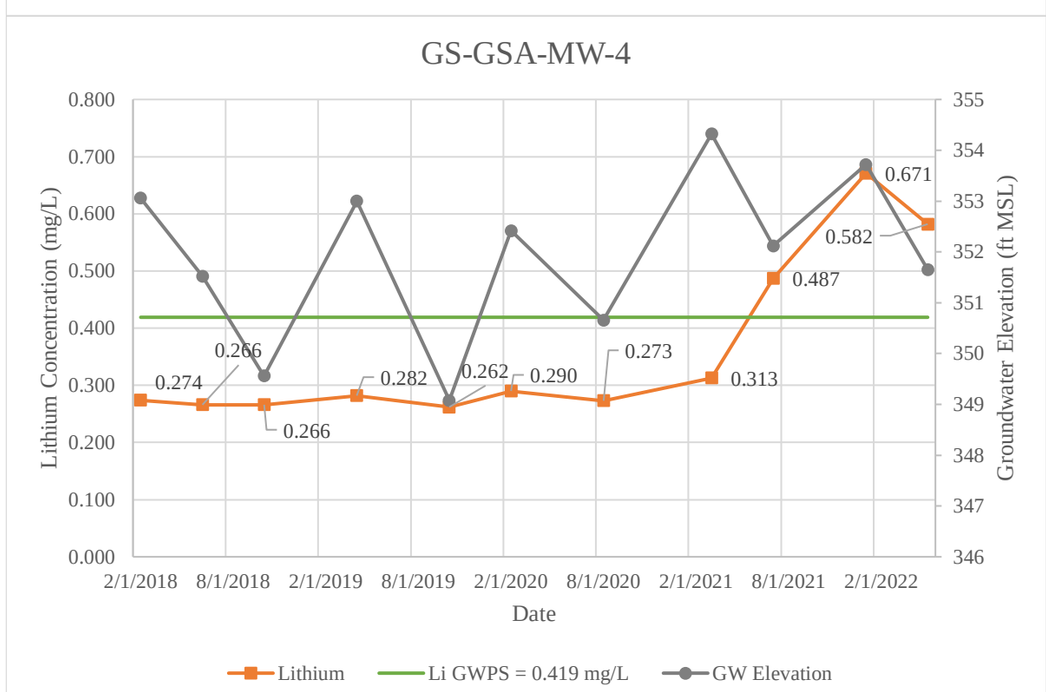
FIGURE NO
FIGURE 4E

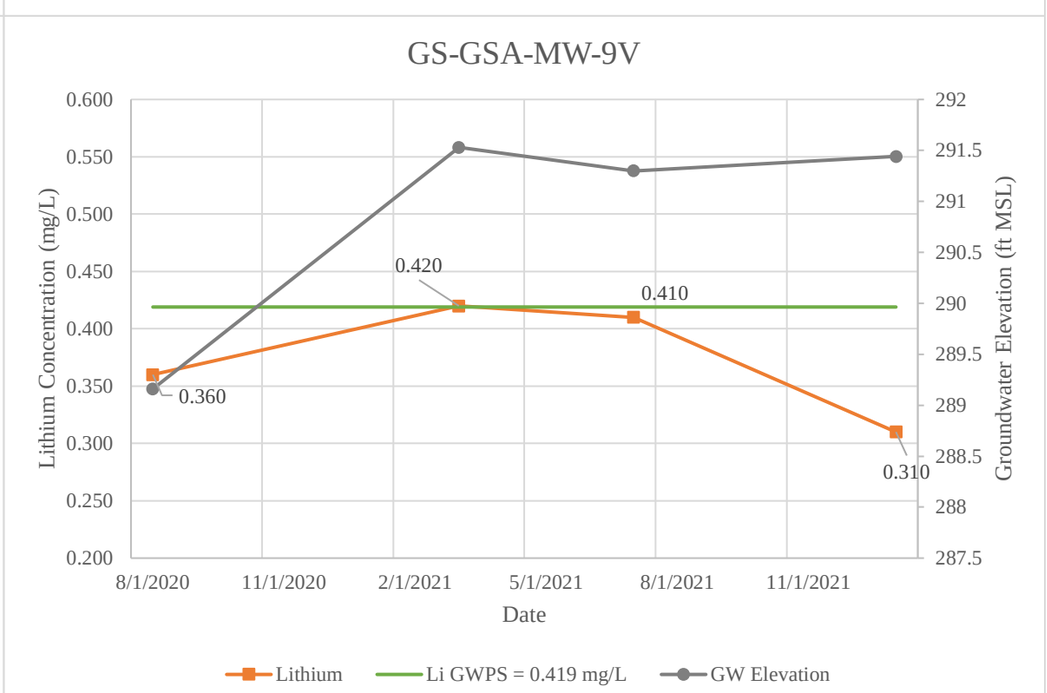
Southern Company

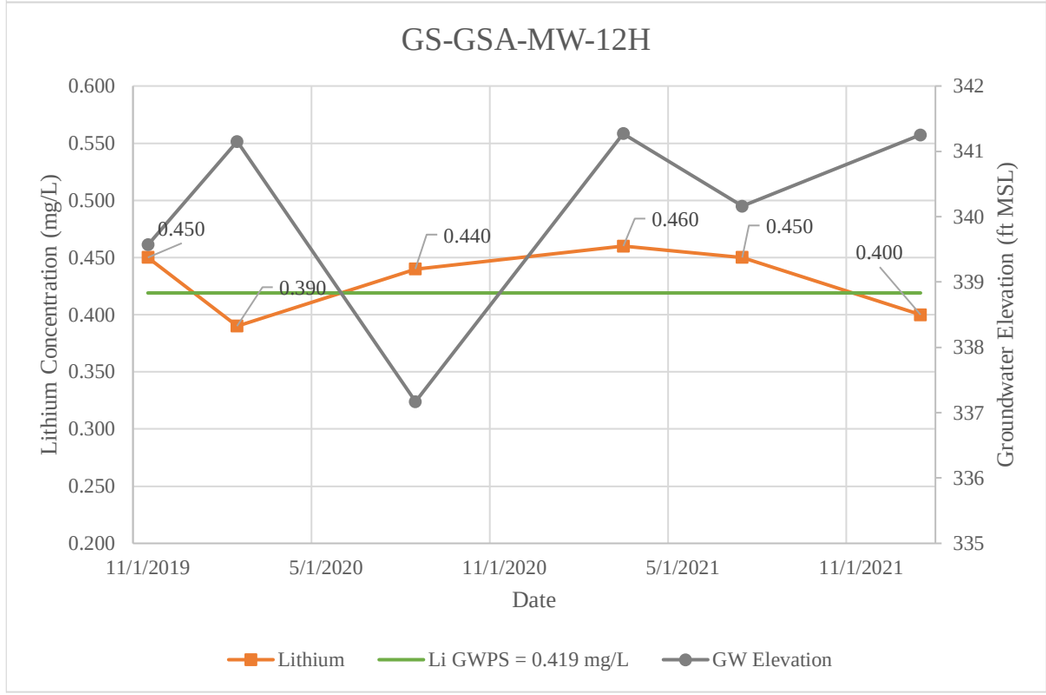
Figure 5, Lithium Time Series Plots

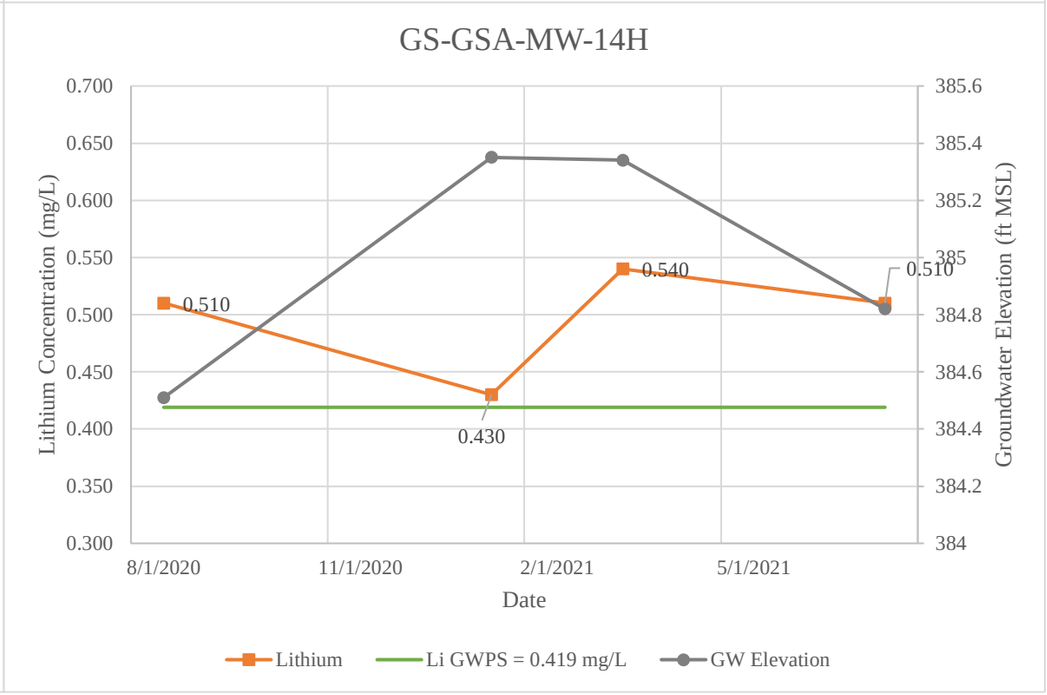








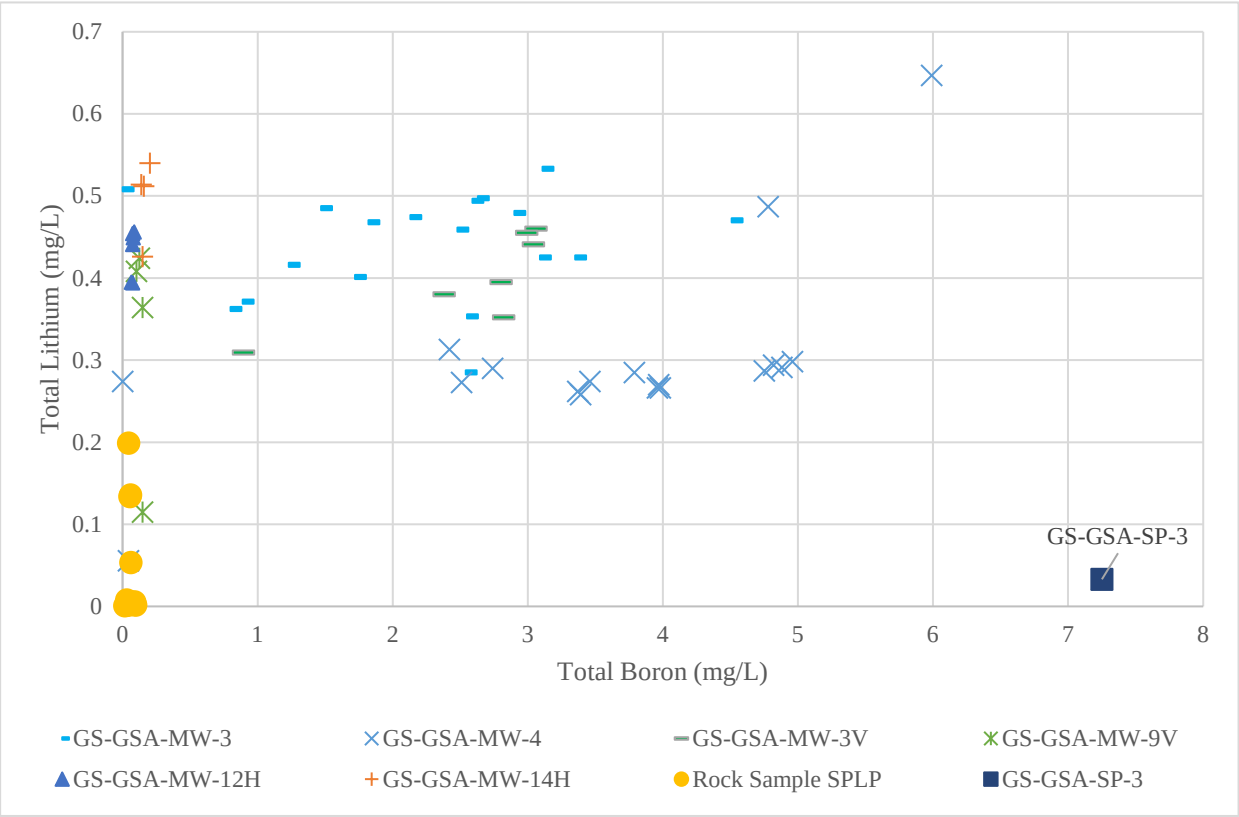




Notes:

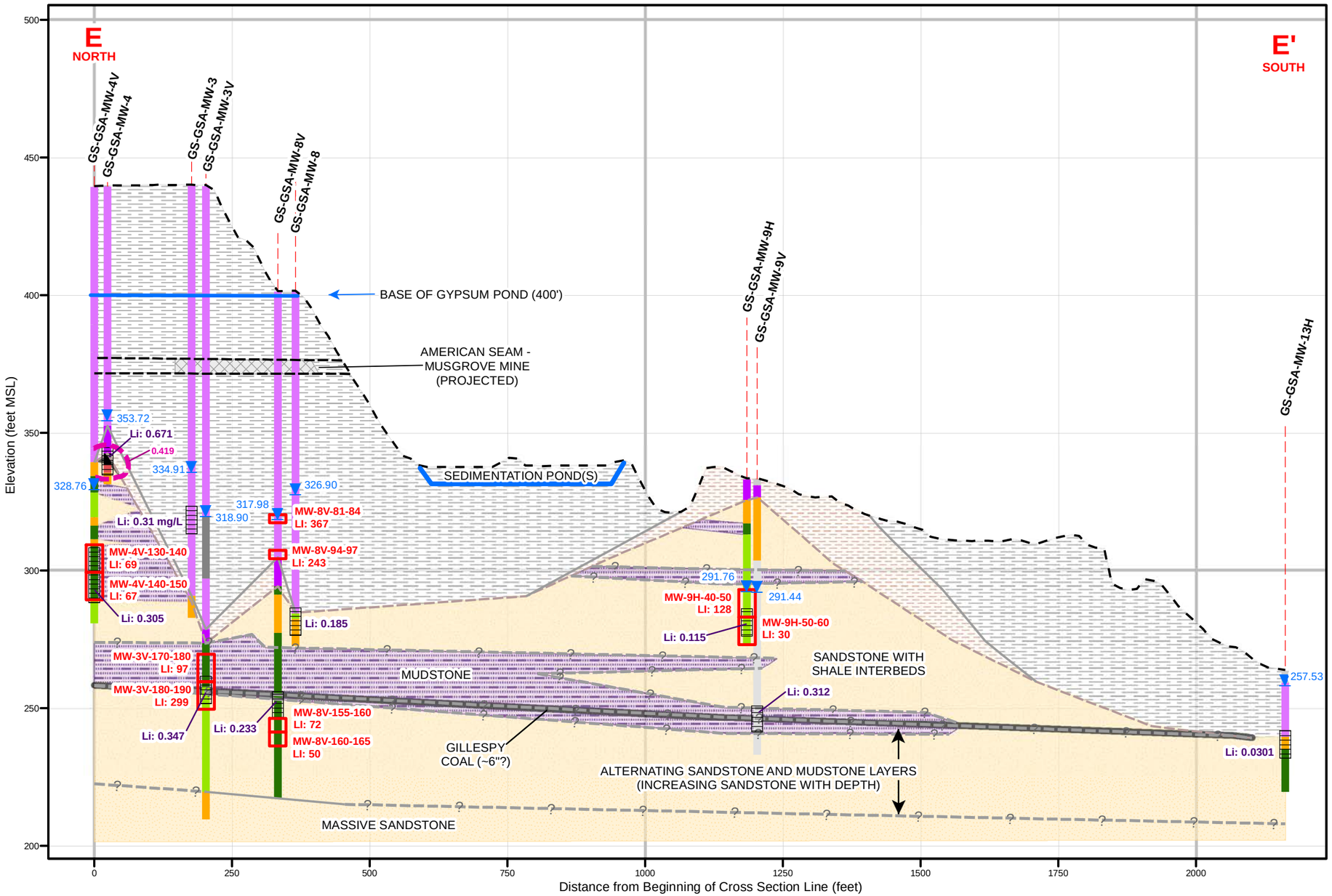
1. mg/L - milligrams per liter
2. ft MSL - feet above mean sea level

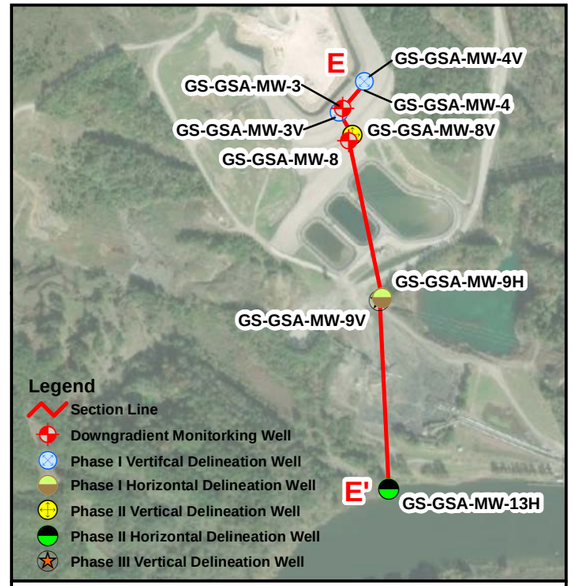
Figure 6, Boron vs. Lithium



Notes:

1. Site groundwater data collected from 2016 to present
2. Leachate sample GS-GSA-SP-3 collected in October 2021 from sedimentation pond





NOTES:
1. Groundwater levels measured on January 24, 2022.
2. Groundwater samples collected from January 25 to 27, 2022.
3. Water levels exist from three separate flow systems, so correlations of potentiometric surfaces are not presented on this figure.
4. Vertical exaggeration = 5.
5. Rock sample MW-8V-81-84 corresponds directly in lithology and elevation to well screen for GS-GSA-MW-3.

Legend

- Ground Surface Elevation
- Groundwater Elevation
- Rock Sample Location with Lithium Concentration (mg/kg)
- Screened Interval
- GWPS Isoconcentration for Lithium (0.419 mg/L)
- Top of Rock
- Strata Boundary
- Inferred Strata
- Mine
- Borehole Location

Borehole Description

- CCR Fill
- Fill Materials
- Overburden
- COAL
- Hydroexcavated
- No Recovery
- Partially Weathered Rock
- Sandstone
- Sandstone and Siltstone
- Shale

Geologic Units

- Backfilled Mine Overburden
- Natural Overburden
- Mudstone/Shale
- Sandstone
- Mine
- Coal

0.305 Lithium Concentration in groundwater (mg/L)
97 Lithium Concentration in rock (mg/kg)

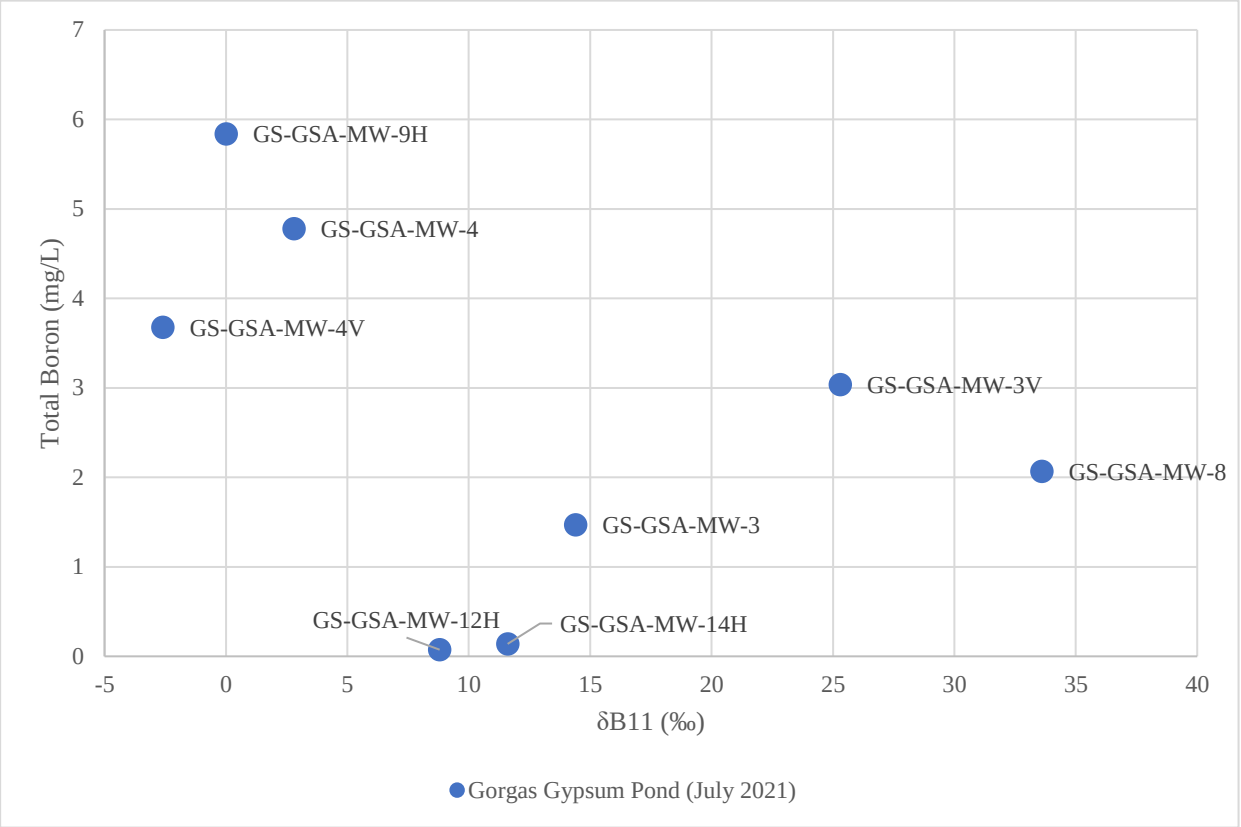
SCALE	AS SHOWN
DATE	7/26/2022
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE
GEOLOGIC CROSS SECTION E - E'
LITHIUM CONCENTRATIONS IN ROCK AND GROUNDWATER
PLANT GORGAS GYPSUM POND

FIGURE NO
FIGURE 7

Southern Company

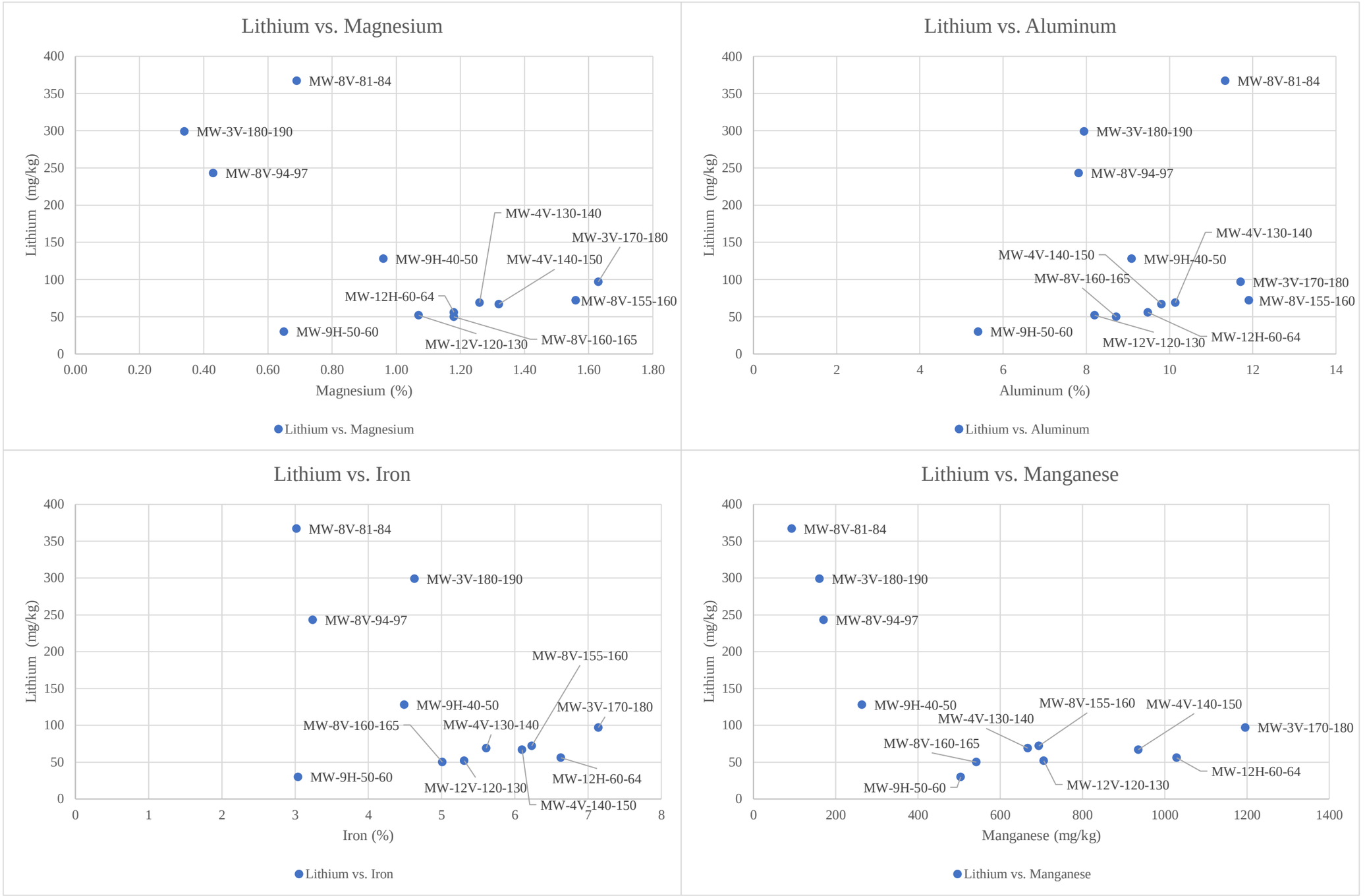
Figure 8, Boron vs. Isotopic Boron Comparison



Notes:

1. Site data collected from the Gorgas Gypsum Pond during the second semi-annual sampling event of 2021
2. $\delta^{11}B$ - isotopic boron

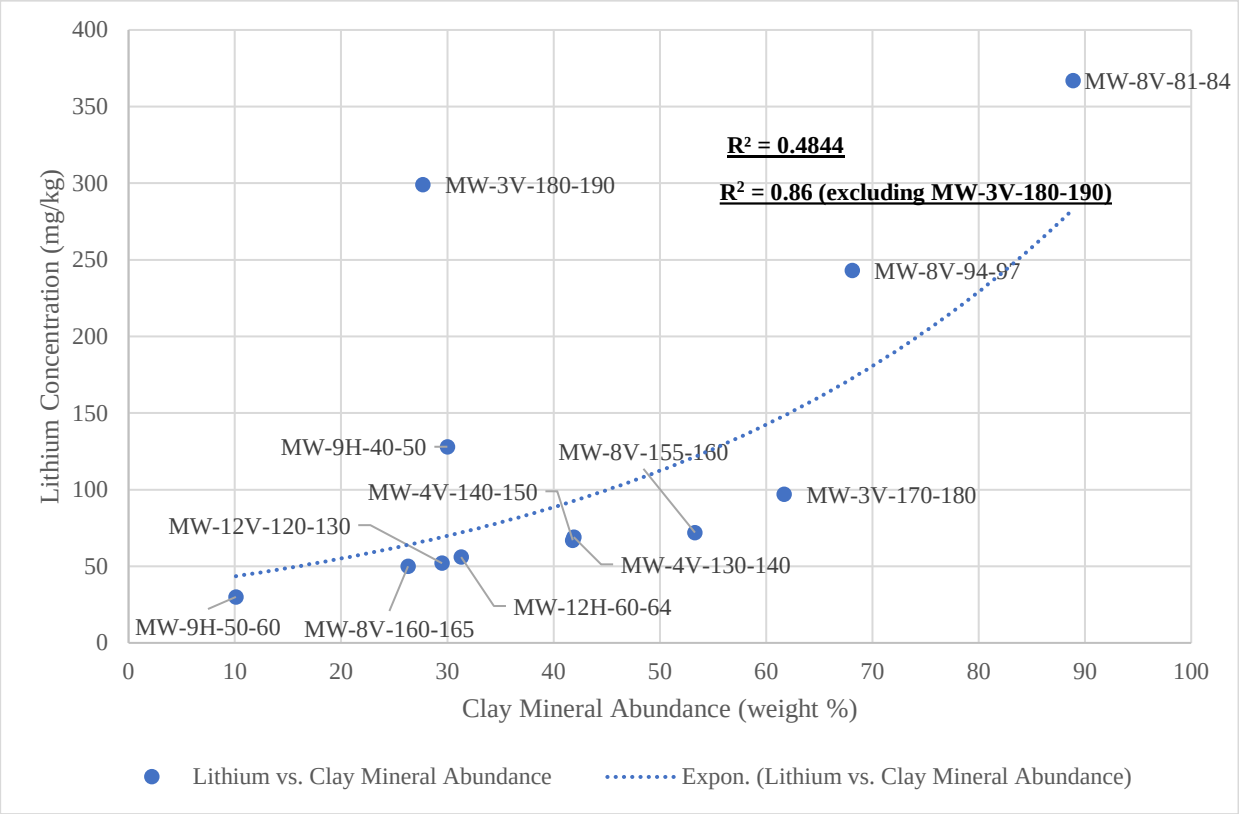
Figure 9, Lithium vs. Aluminum, Magnesium, Iron, & Manganese



Notes:

1. Total concentrations of constituents in rock samples determined by multi-acid digestion with ICP-MS
2. mg/kg - milligram per kilogram

Figure 10, Lithium & Clay Content

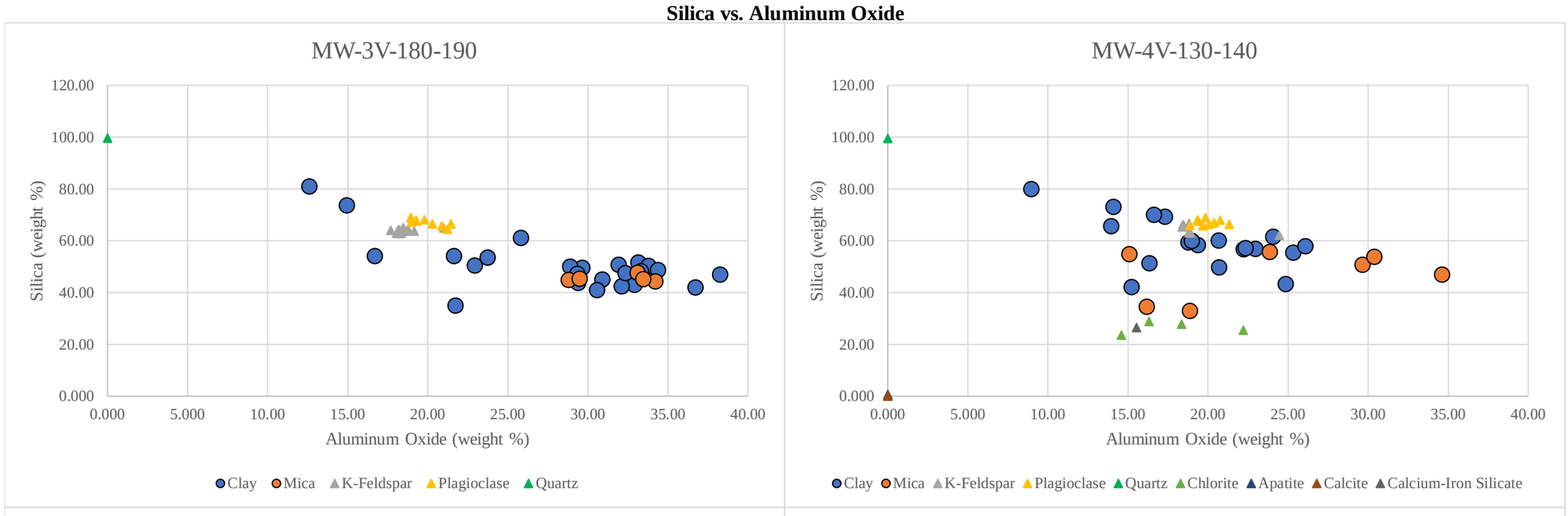


Notes:

1. Clay mineral abundance consisting of clay minerals (i.e., kaolinite, illite, etc.) and micas (i.e., muscovite, biotite, etc.) determined by TIMA-X

2. Lithium concentrations from multi-acid digestion of total rock sample and analysis by ICP-MS

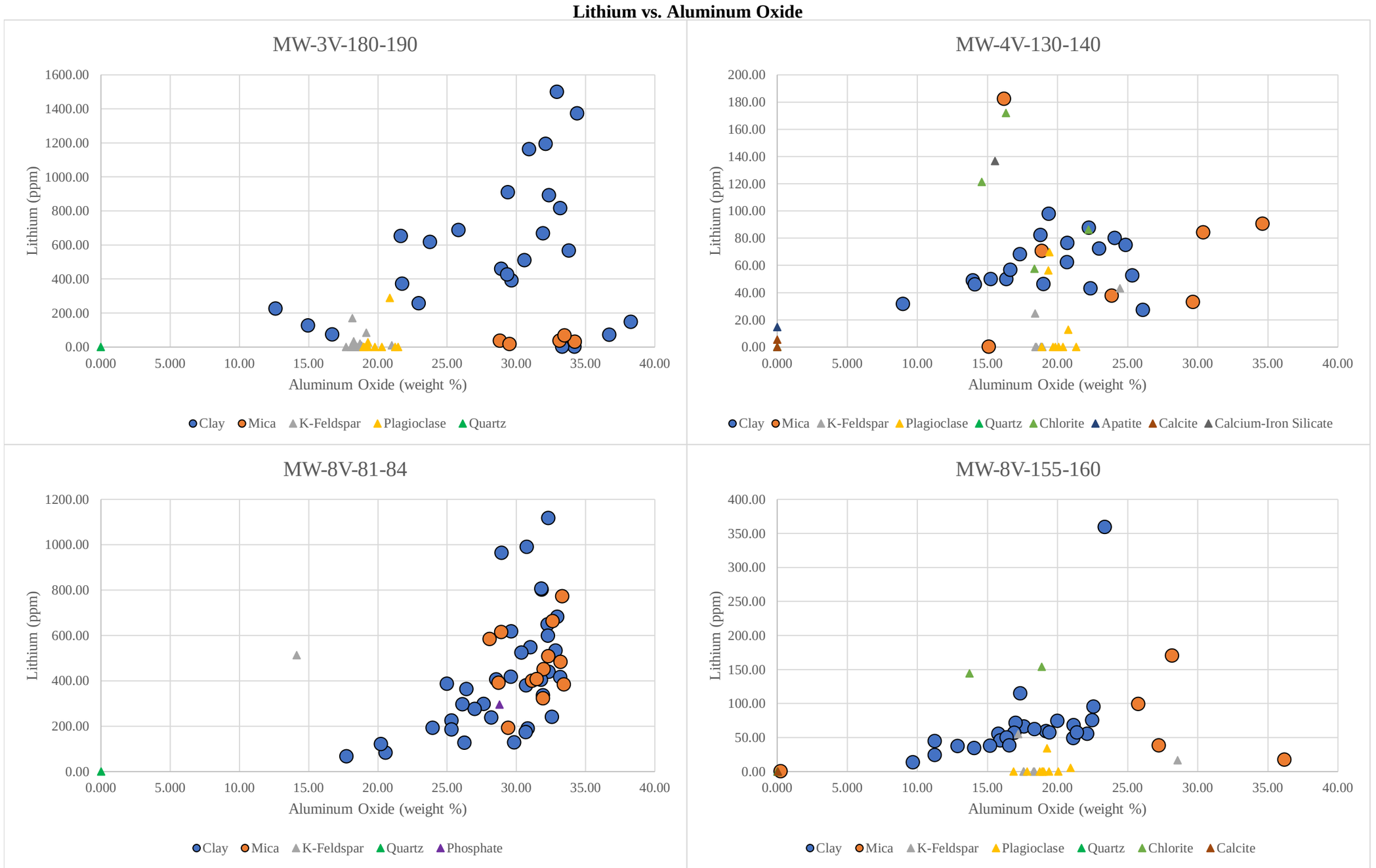
Figure 11 - LA ICP-MS Results
Silica vs. Aluminum Oxide



Notes:

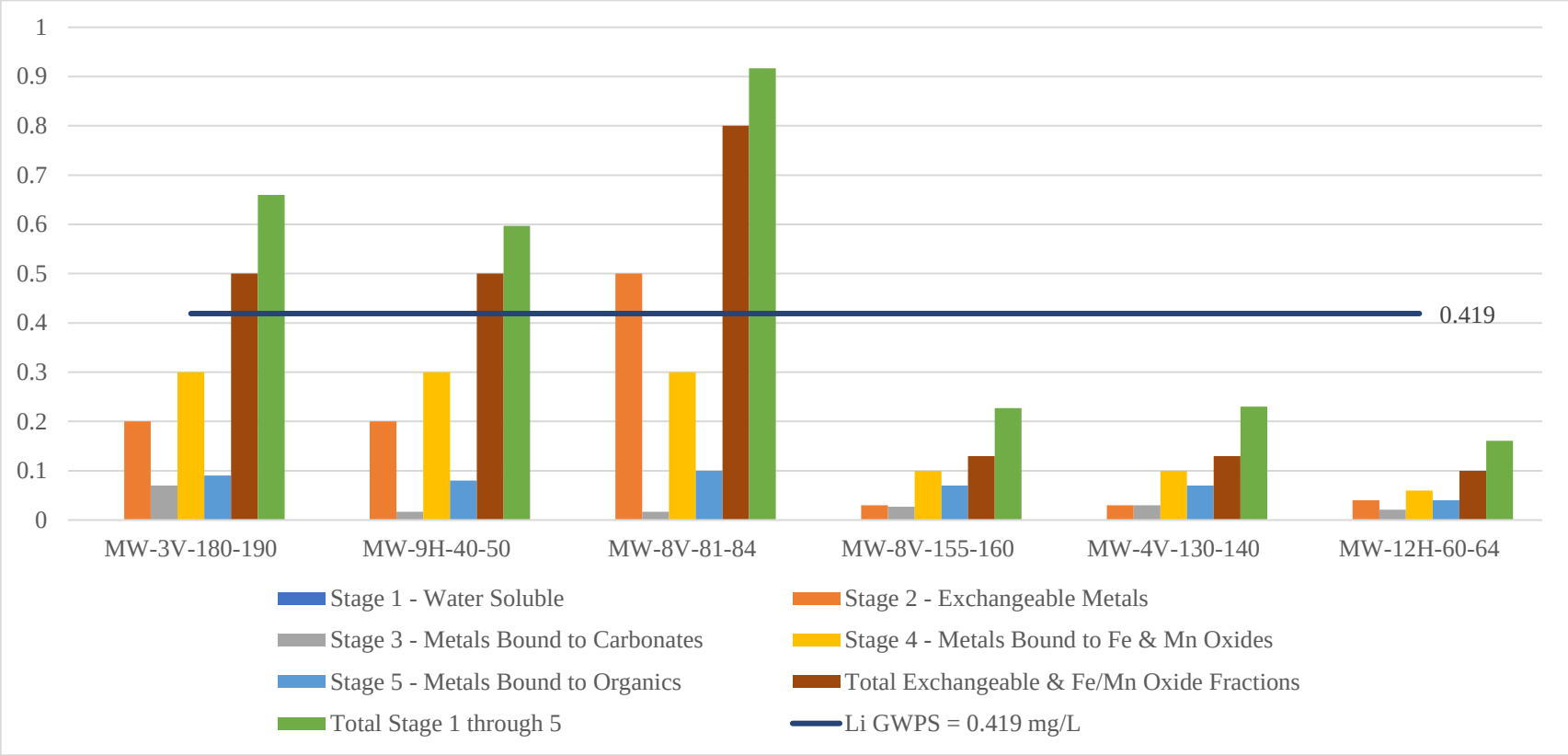
1. Analysis completed by laser ablation and inductively coupled plasma mass spectrometry (LA ICP-MS)

Figure 12 - LA ICP-MS Results
Lithium vs. Aluminum Oxide



Notes:
1. ppm - parts per million
2. Analysis completed by laser ablation and inductively coupled plasma mass spectrometry (ICP-MS)

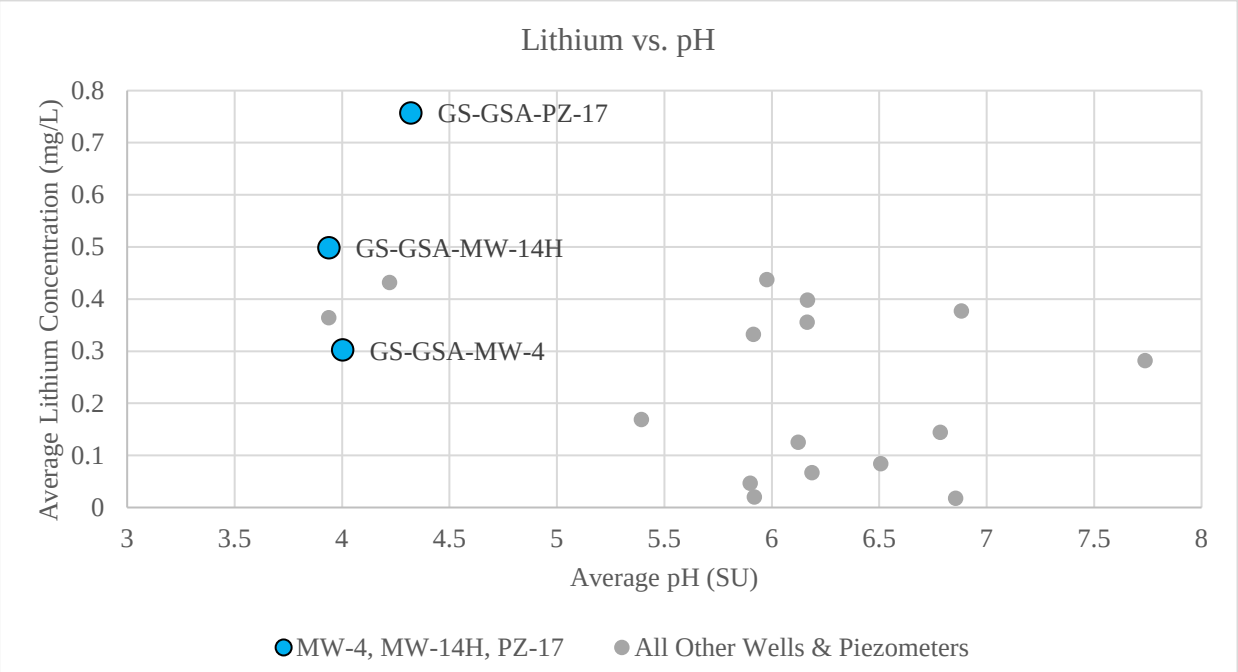
Figure 13, Fraction Lithium Concentrations vs. GWPS

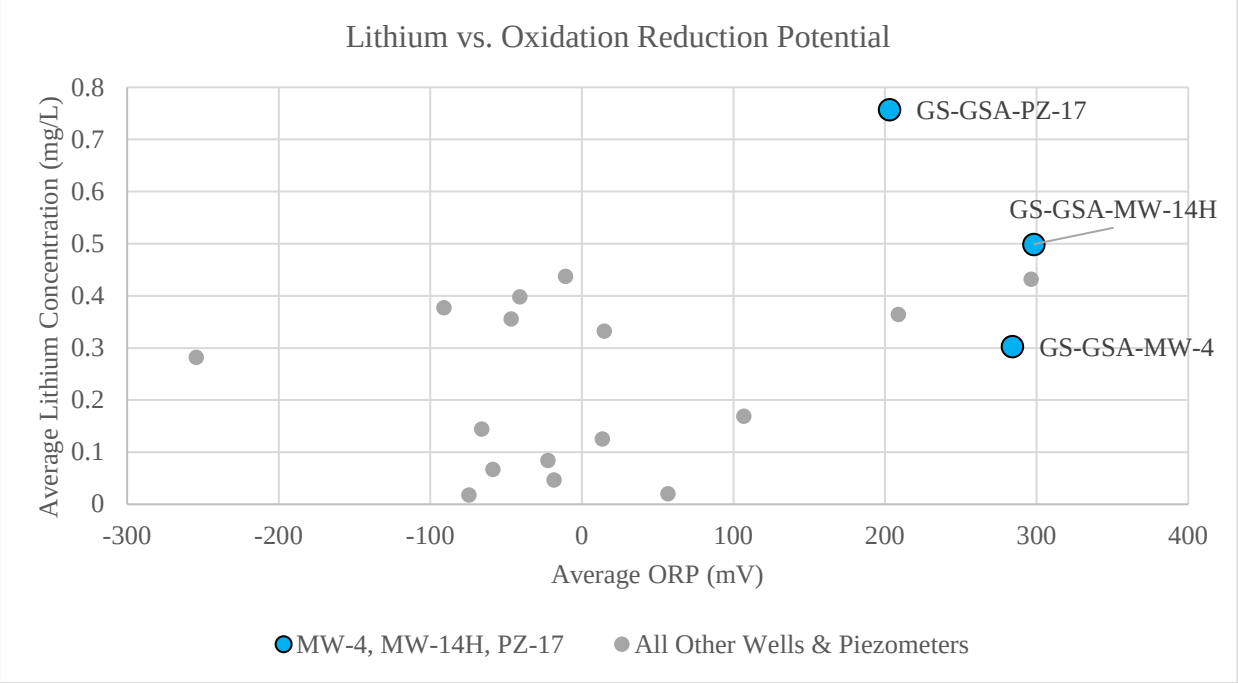


Notes:

1. Lithium concentrations provided in milligrams per liter (mg/L)
2. Fe - iron, Mn - manganese
3. Tessier extraction technique used for sequential extraction
4. GWPS - Groundwater Protection Standard (0.419 mg/L)

Figure 14, Lithium vs. pH & ORP





Notes:

1. mg/L - milligrams per liter
2. SU - standard units
3. ORP - oxidation reduction potential

Appendix A

GROUNDWATER STATS CONSULTING

May 12, 2022

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Gorgas Gypsum Pond
1st Semi-Annual Statistical Analysis – January 2022

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 January 2022 1st semi-annual sample event for Alabama Power Company's Plant Gorgas Gypsum 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 (USEPA) Unified Guidance (2009).

Sampling began at this site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** MW-1, MW-2, MW-3, and MW-4
- **Downgradient wells:** GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8
- **Delineation wells:** GS-GSA-MW-3V, GS-GSA-MW-4V, GS-GSA-MW-8V, GS-GSA-MW-9H, GS-GSA-MW-9V, GS-GSA-MW-11H, GS-GSA-MW-12H, GS-GSA-MW-12V, GS-GSA-MW-13H, and GS-GSA-MW-14H
- **Piezometers:** GS-GSA-MW-01, GS-GSA-MW-02, GS-GSA-MW-10H, GS-GSA-MW-15H, GS-GSA-PZ-16, GS-GSA-PZ-17, GS-GSA-PZ-18, GS-GSA-PZ-19, GS-GSA-PZ-20, GS-GSA-PZ-21, GS-GSA-PZ-22, GS-GSA-MW-23VA, and GS-GSA-PZ-2A

Note that data from delineation wells did not require statistics; therefore, data were plotted only on time series and box plots. Piezometers only monitor water levels; therefore, they are not included in this analysis.

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 of Groundwater Stats Consulting.

The CCR program consists of the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

> **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
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan

- # Background Samples (Intrawell): 16
- # Background Samples (Interwell): 98
- # Constituents: 7
- # Downgradient wells: 3

Summary of Statistical Methods – Appendix III Parameters

Based on the earlier evaluation described above, the following statistical methods were selected:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for pH, sulfate, and TDS
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, and fluoride

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. Non-detects are handled as follows:

- 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 intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. 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. While the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Update Summaries

Fall 2019

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, are updated by testing for the appropriateness of consolidating new sampling observations with the screened background data and were last updated in September 2019. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate pH, sulfate, and TDS at all wells due to natural spatial variation for these parameters. Historical data were evaluated for updating with newer data through May 2019 through the use of time series graphs and Tukey's outlier test to identify potential outliers, when necessary, as well as the Mann Whitney test for equality of medians. This process is described below for the 2021 update and requires a minimum of four new data points. During the 2019 screening, all background data sets for constituents using intrawell prediction limits with the exception of TDS for downgradient well GS-GSA-MW-8 were updated through May 2019 and a summary of these results was included with the Mann Whitney test section in that report.

Interwell prediction limits are used to compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data for boron, calcium, chloride, and fluoride. As mentioned above, these limits are updated following each sampling event after careful screening for new outliers. Data from upgradient wells are also periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend. No adjustments were required in upgradient wells for constituents evaluated using interwell prediction limits.

Fall 2021

Outlier Analysis

Prior to performing prediction limits, proposed background data--through March 2021 for intrawell parameters and through July 2021 for interwell parameters--were reviewed through visual screening to identify any newly suspected outliers at all wells for pH, sulfate, and TDS, and at upgradient wells for boron, calcium, chloride, and fluoride. When values are identified as outliers, these measurements are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective.

During the screening, a high non-detect value for boron in upgradient well MW-4 and high detected values for sulfate and TDS in upgradient well MW-1 were flagged as outliers. Additionally, a low value for pH in upgradient well MW-3 was flagged. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the time series graphs, as well as in a lighter font on the accompanying data pages. A summary of flagged outliers follows this report (Figure C).

Intrawell – Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2019 to compliance data through March 2021. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- None

Decrease

- pH: MW-1 (upgradient)

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a naturally occurring shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is

of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

Although a statistically significant decrease was identified for pH in upgradient well MW-1, the decrease in in median concentrations was upgradient of the facility and not a representation of impacts from the facility. Additionally, the magnitude of the difference was small relative to the existing concentrations in background, and the compliance samples were stable. Therefore, this record was updated and all background data sets for CCR Appendix III constituents that use intrawell methods were updated. All records will be re-evaluated during the next background update.

Interwell – Trend Test Evaluation

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may require deselection prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective.

No statistically significant trends were noted in upgradient wells except for increasing trends for boron and fluoride in upgradient well MW-2; however, the increasing trends for boron is the result of high non-detects in the latter part of the record and the trend in fluoride is small relative to average concentrations. Therefore, no adjustments were made at this time. A summary of the results were submitted with the screening.

Evaluation of Appendix III Parameters – January 2022

Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for pH, sulfate, and TDS at each well using screened background data through March 2021 (Figure D). Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. The January 2022 observation at each well is compared to its respective background from the same well to determine whether initial exceedances are present.

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed for boron, calcium, chloride, and fluoride (Figure E). Interwell prediction limits pool upgradient well data through January 2022 to establish a background limit for an individual constituent. The January 2022 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary.

Complete prediction limits results and a summary of exceedances follow this letter. Exceedances were identified for the following well/constituent pairs:

Intrawell:

- pH: MW-2, MW-4 (both upgradient), and GS-GSA-MW-3
- Sulfate: GS-GSA-MW-4
- TDS: GS-GSA-MW-4

Interwell:

- Boron: GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8
- Calcium: GS-GSA-MW-3 and GS-GSA-MW-8
- Chloride: GS-GSA-MW-3, GS-GSA-MW-4, and GS-GSA-MW-8

Trend Test Evaluation – Appendix III

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 F). 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: MW-2 (upgradient) and GS-GSA-MW-8
- Calcium: GS-GSA-MW-8
- Chloride: GS-GSA-MW-8
- pH: MW-2 (upgradient)
- TDS: MW-1 (upgradient)

Decreasing

- Chloride: GS-GSA-MW-4
- pH: MW-1 (upgradient)
- Sulfate: MW-4 (upgradient)
- TDS: MW-4 (upgradient)

Evaluation of Appendix IV Parameters – January 2022

Data from upgradient wells for Appendix IV parameters were assessed for outliers during previous analyses. No new outliers were flagged during this analysis.

During the previous analysis, high values for cobalt and lead in upgradient well MW-3 were flagged in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective. A previously flagged value of selenium (0.0209 mg/L) was unflagged in well MW-3. A summary of all flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management, the Groundwater Protections Standards (GWPS) were updated during the 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 tolerance limits constructed from pooled upgradient well data through July 2021 (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. 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.

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 H) in the confidence interval comparisons described below. Exceptions are noted in Figure H for beryllium and cadmium. For these two parameters, the MCL's were used as the GWPS rather than the higher background UTLs to maintain the more conservative standard.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through January 2022 for each of the Appendix IV parameters (Figure I). 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 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. No exceedances were noted for any of the well/constituent pairs.

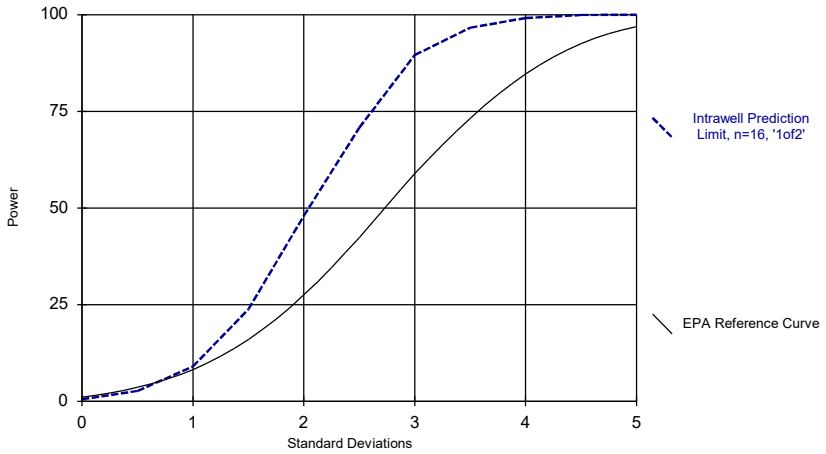
Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Gorgas Gypsum Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Abdul Diane
Groundwater Analyst

Andrew T. Collins
Project Manager

Intrawell Power Curve



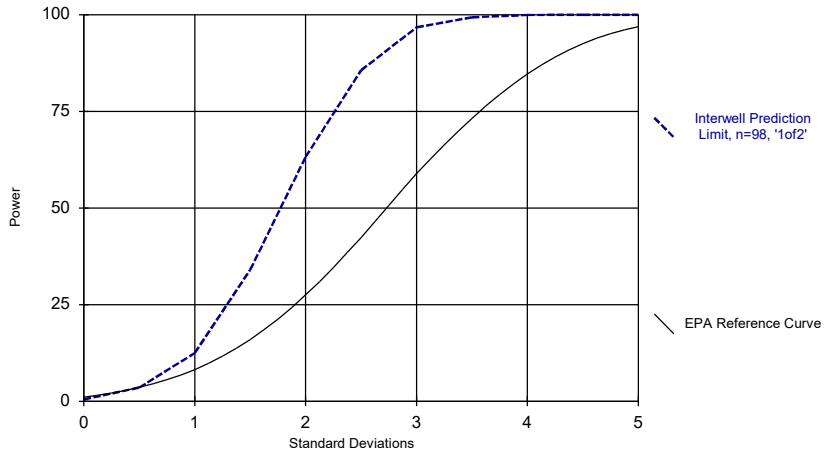
Kappa = 1.97, based on 3 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/12/2022 1:50 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Interwell Power Curve



Kappa = 1.674, based on 3 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 5/12/2022 1:50 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

100% Non-Detects: Appendix IV Downgradient

Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Beryllium (mg/L)
GS-GSA-MW-8

Cadmium (mg/L)
GS-GSA-MW-3, GS-GSA-MW-8

Mercury (mg/L)
GS-GSA-MW-3, GS-GSA-MW-4, GS-GSA-MW-8

Molybdenum (mg/L)
GS-GSA-MW-4

Selenium (mg/L)
GS-GSA-MW-8

Thallium (mg/L)
GS-GSA-MW-3, GS-GSA-MW-8

Appendix III Intrawell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	GS-GSA-MW-4	3.896	3.699	1/27/2022	3.73	No	17	3.798	0.05044	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	GS-GSA-MW-8	7.149	6.399	1/27/2022	6.85	No	17	6.774	0.1922	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	MW-1	5.249	5.046	1/25/2022	5.11	No	23	5.147	0.05471	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	MW-3	5.987	4.38	1/25/2022	5.9	No	23	149.3	35.15	0	None	x^3	0.001253	Param Intra 1 of 2
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-3	3163	n/a	1/26/2022	2620	No	16	2.3e10	4.4e9	0	None	x^3	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-8	2169	n/a	1/27/2022	2000	No	16	1541	318.8	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	1653	n/a	1/25/2022	1430	No	22	1456	105.3	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	1257	n/a	1/25/2022	842	No	23	1001	137.9	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	3195	n/a	1/25/2022	2550	No	23	2487	381.4	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-4	3107	n/a	1/25/2022	1930	No	22	2505	321.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	GS-GSA-MW-3	5170	n/a	1/26/2022	4260	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	GS-GSA-MW-8	4017	n/a	1/27/2022	3290	No	16	2978	527.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-1	2516	n/a	1/25/2022	2150	No	22	2201	168.2	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-2	2005	n/a	1/25/2022	1500	No	23	1648	192.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-3	4954	n/a	1/25/2022	3950	No	23	3773	635.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-4	4484	n/a	1/25/2022	3180	No	22	5.8e10	1.7e10	0	None	x^3	0.002505	Param Intra 1 of 2

Appendix III Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 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-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**

Appendix III Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 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-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	GS-GSA-MW-4	431	n/a	1/27/2022	181	No	99	n/a	n/a	0	n/a	n/a	0.0001981	NP Inter (normality) 1 of 2
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Fluoride (mg/L)	GS-GSA-MW-3	0.63	n/a	1/26/2022	0.447	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-4	0.63	n/a	1/27/2022	0.05ND	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-8	0.63	n/a	1/27/2022	0.179	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2

Appendix III Trend Test Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test Summary - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-GSA-MW-3	0.1215	11	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-GSA-MW-4	-0.3832	-53	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-1 (bg)	0.003819	110	111	No	25	32	n/a	n/a	0.01	NP
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-3 (bg)	0.002231	87	111	No	25	28	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003942	-28	-98	No	23	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-GSA-MW-3	-6.045	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-1 (bg)	2.531	86	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	2.037	42	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	10.56	65	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-4 (bg)	-6.803	-60	-105	No	24	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-GSA-MW-3	-6.058	-18	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-1 (bg)	-0.02423	-34	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.09448	-35	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.09968	71	111	No	25	8	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.06727	-80	-105	No	24	4.167	n/a	n/a	0.01	NP
pH (pH)	GS-GSA-MW-3	-0.06414	-61	-74	No	19	0	n/a	n/a	0.01	NP
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	MW-3 (bg)	0	-1	-111	No	25	0	n/a	n/a	0.01	NP
pH (pH)	MW-4 (bg)	0.008156	45	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-GSA-MW-4	9.649	25	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-1 (bg)	14.12	44	105	No	24	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	-36.24	-65	-111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-3 (bg)	110.7	99	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	GS-GSA-MW-4	5.547	17	68	No	18	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	MW-2 (bg)	-28.02	-47	-111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	MW-3 (bg)	192.9	99	111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Upper Tolerance Limits Summary Table

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 11/16/2021, 4:56 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.00143	n/a	n/a	n/a	95	n/a	n/a	93.68	n/a	n/a	0.007651	NP Inter
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	95	n/a	n/a	83.16	n/a	n/a	0.007651	NP Inter
Barium (mg/L)	n/a	0.0166	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Beryllium (mg/L)	n/a	0.0121	n/a	n/a	n/a	93	n/a	n/a	83.87	n/a	n/a	0.008478	NP Inter
Cadmium (mg/L)	n/a	0.00652	n/a	n/a	n/a	94	n/a	n/a	44.68	n/a	n/a	0.008054	NP Inter
Chromium (mg/L)	n/a	0.0105	n/a	n/a	n/a	95	n/a	n/a	89.47	n/a	n/a	0.007651	NP Inter
Cobalt (mg/L)	n/a	0.64	n/a	n/a	n/a	93	n/a	n/a	24.73	n/a	n/a	0.008478	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	1.47	n/a	n/a	n/a	81	n/a	n/a	0	n/a	n/a	0.01569	NP Inter
Fluoride (mg/L)	n/a	0.63	n/a	n/a	n/a	99	n/a	n/a	1.01	n/a	n/a	0.006232	NP Inter
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	94	n/a	n/a	94.68	n/a	n/a	0.008054	NP Inter
Lithium (mg/L)	n/a	0.419	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	95	n/a	n/a	100	n/a	n/a	0.007651	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	95	n/a	n/a	97.89	n/a	n/a	0.007651	NP Inter
Selenium (mg/L)	n/a	0.0209	n/a	n/a	n/a	95	n/a	n/a	58.95	n/a	n/a	0.007651	NP Inter
Thallium (mg/L)	n/a	0.000226	n/a	n/a	n/a	95	n/a	n/a	96.84	n/a	n/a	0.007651	NP Inter

GORGAS GYPSUM POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.0166	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00652	0.005
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	0.64	0.64
Combined Radium-226/228	pCi/L	1.47	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00692	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.0181	0.05
Thallium	mg/L	0.000226	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 Interval Summary Table - All Results (No Significant)

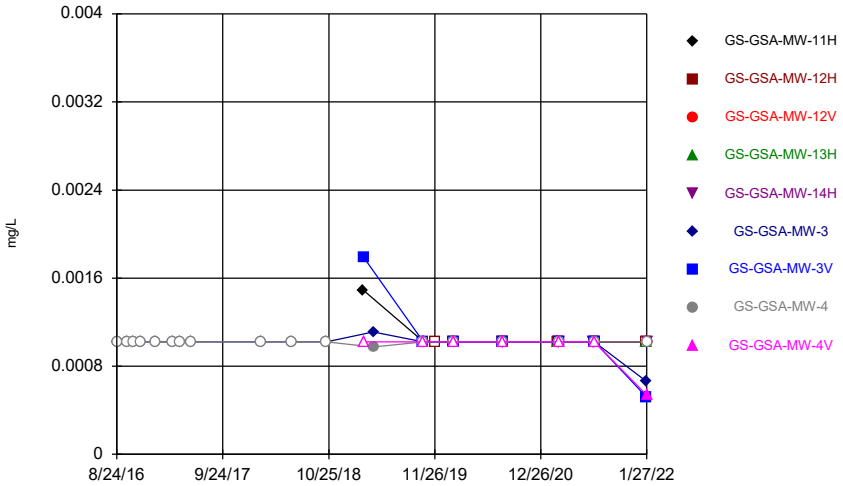
Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-GSA-MW-3	0.00111	0.00066	0.006	No	8	0.0001355	75	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-4	0.00102	0.000976	0.006	No	8	0.00001556	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-8	0.00102	0.00102	0.006	No	8	1.2e-11	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-GSA-MW-3	0.005	0.00057	0.01	No	8	0.002081	50	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-4	0.005	0.00115	0.01	No	8	0.001323	12.5	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-8	0.005	0.00024	0.01	No	8	0.002393	62.5	No	0.004	NP (NDs)
Barium (mg/L)	GS-GSA-MW-3	0.01522	0.01286	2	No	8	0.001115	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-4	0.01418	0.01174	2	No	8	0.001149	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-8	0.0235	0.02	2	No	8	0.001653	0	No	0.01	Param.
Beryllium (mg/L)	GS-GSA-MW-3	0.00345	0.00141	0.004	No	8	0.0006843	0	No	0.004	NP (normality)
Beryllium (mg/L)	GS-GSA-MW-4	0.00768	0.00369	0.004	No	8	0.001358	0	No	0.004	NP (normality)
Cadmium (mg/L)	GS-GSA-MW-4	0.00336	0.00143	0.005	No	8	0.0006563	0	No	0.004	NP (normality)
Chromium (mg/L)	GS-GSA-MW-3	0.01	0.000386	0.1	No	8	0.004959	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-4	0.01	0.000567	0.1	No	8	0.004774	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-8	0.01	0.0003	0.1	No	8	0.004972	62.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-GSA-MW-3	0.136	0.06788	0.64	No	8	0.03212	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-4	0.3289	0.1716	0.64	No	8	0.07419	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-8	0.00546	0.00026	0.64	No	8	0.002143	62.5	No	0.004	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-3	0.6243	0.2672	5	No	8	0.1726	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-4	1.168	0.277	5	No	8	0.4204	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-8	1.021	-0.01234	5	No	8	0.4876	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-3	0.7083	0.393	4	No	8	0.1488	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-4	0.44	0.05	4	No	8	0.1379	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	GS-GSA-MW-8	0.1894	0.1083	4	No	8	0.03827	0	No	0.01	Param.
Lead (mg/L)	GS-GSA-MW-3	0.0002	0.00014	0.015	No	8	0.00002378	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-4	0.00103	0.0002	0.015	No	8	0.0003351	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-8	0.0002	0.000145	0.015	No	8	0.00002434	75	No	0.004	NP (NDs)
Lithium (mg/L)	GS-GSA-MW-3	0.4994	0.3666	0.419	No	8	0.06719	0	x^2	0.01	Param.
Lithium (mg/L)	GS-GSA-MW-4	0.671	0.262	0.419	No	8	0.1473	0	No	0.004	NP (normality)
Lithium (mg/L)	GS-GSA-MW-8	0.2131	0.1702	0.419	No	8	0.02023	0	No	0.01	Param.
Molybdenum (mg/L)	GS-GSA-MW-3	0.01	0.00022	0.1	No	8	0.005055	62.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-GSA-MW-8	0.01	0.00012	0.1	No	8	0.004722	62.5	No	0.004	NP (NDs)
Selenium (mg/L)	GS-GSA-MW-3	0.01	0.00117	0.05	No	8	0.004498	50	No	0.004	NP (normality)
Selenium (mg/L)	GS-GSA-MW-4	0.01	0.00294	0.05	No	8	0.003295	37.5	No	0.004	NP (normality)
Thallium (mg/L)	GS-GSA-MW-4	0.001	0.00009	0.002	No	8	0.0004436	50	No	0.004	NP (normality)

FIGURE A.

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series



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Plant Gorgas Client: Southern Company Data: Gorgas GSA

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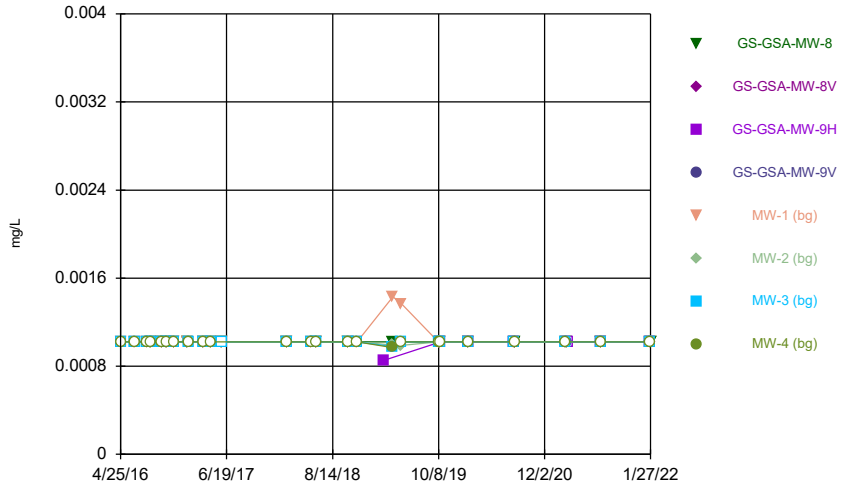

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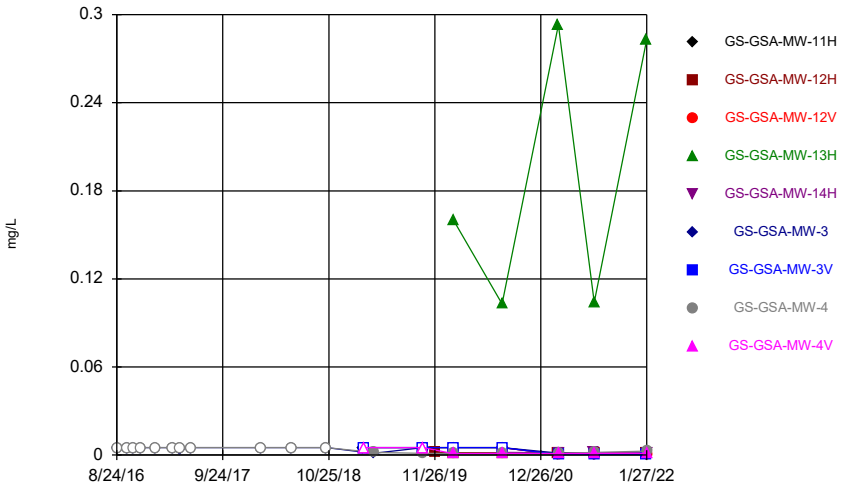

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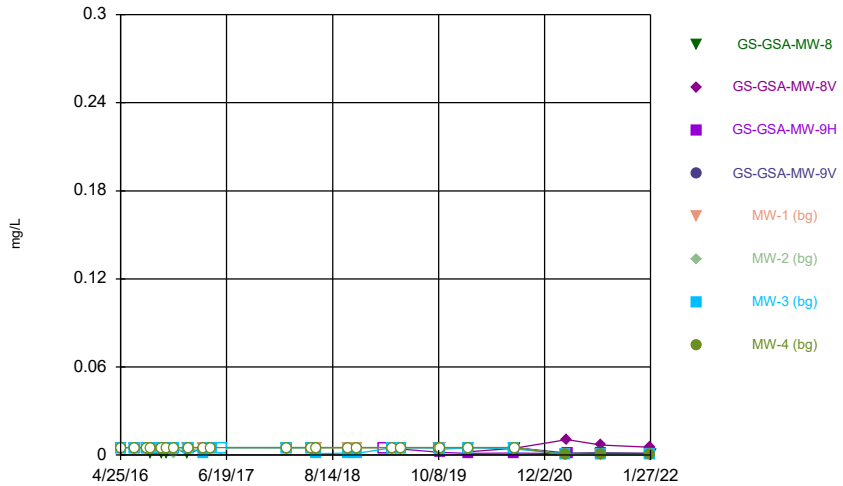

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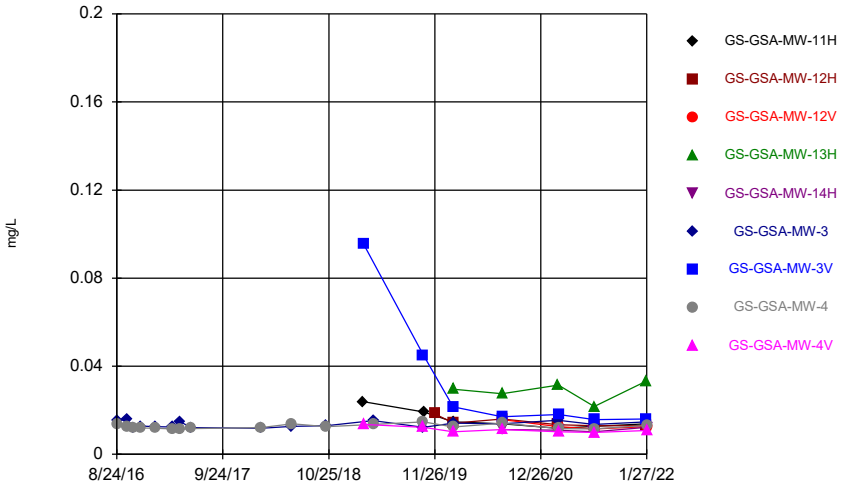
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Time Series



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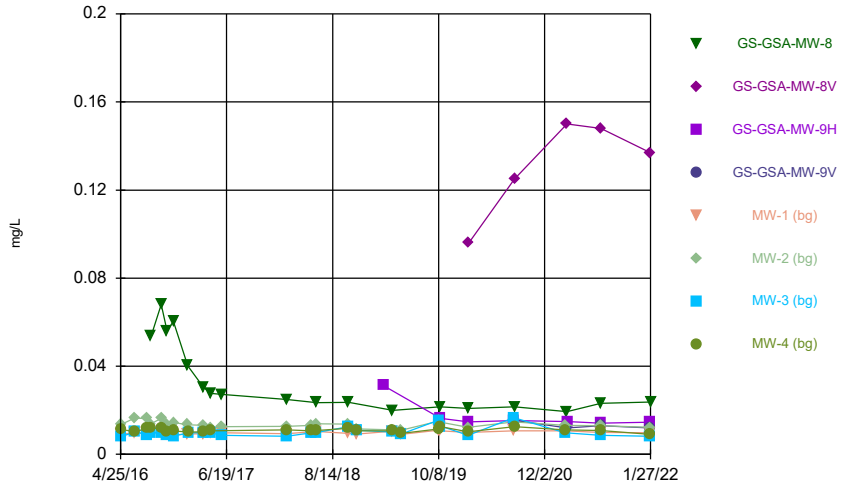
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Time Series



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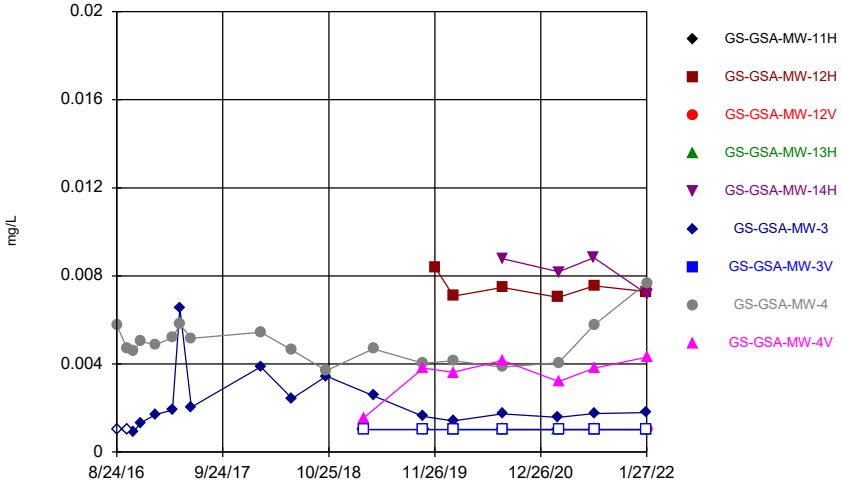

Constituent: Beryllium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

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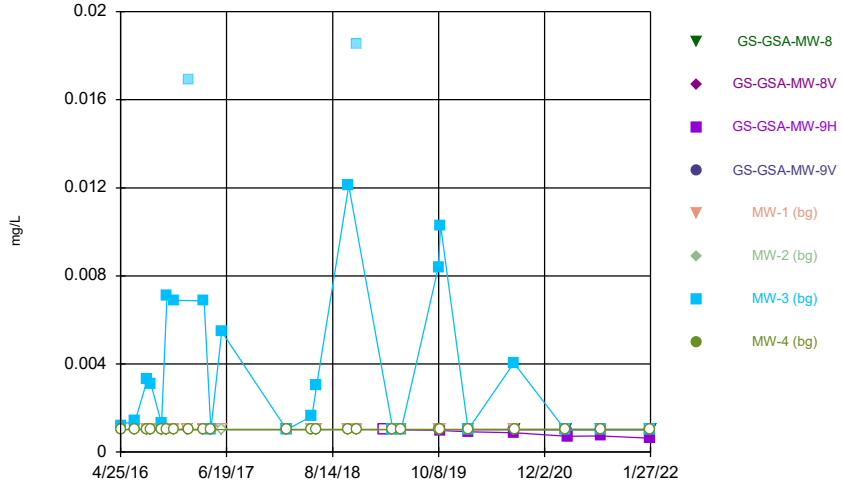

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Plant Gorgas Client: Southern Company Data: Gorgas GSA

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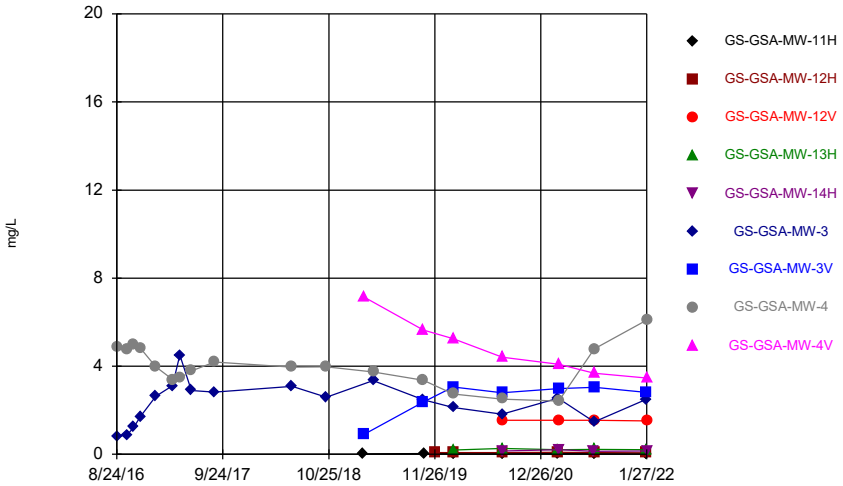

Constituent: Boron Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

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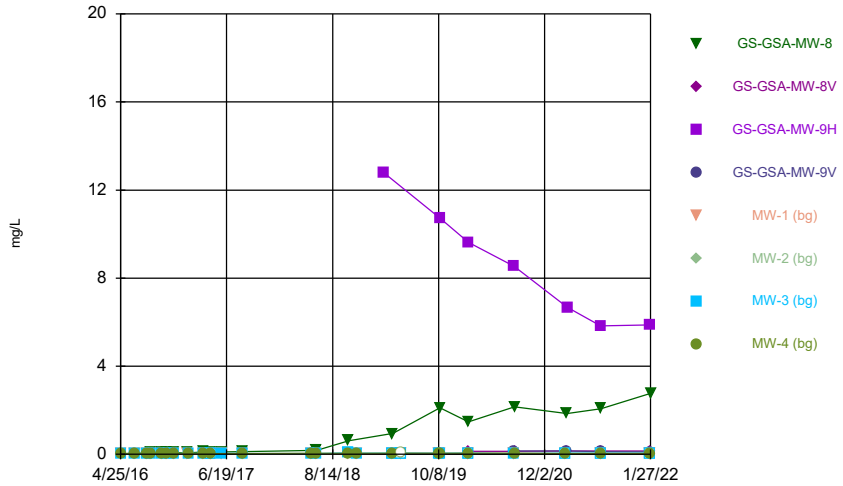
Time Series



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Plant Gorgas Client: Southern Company Data: Gorgas GSA

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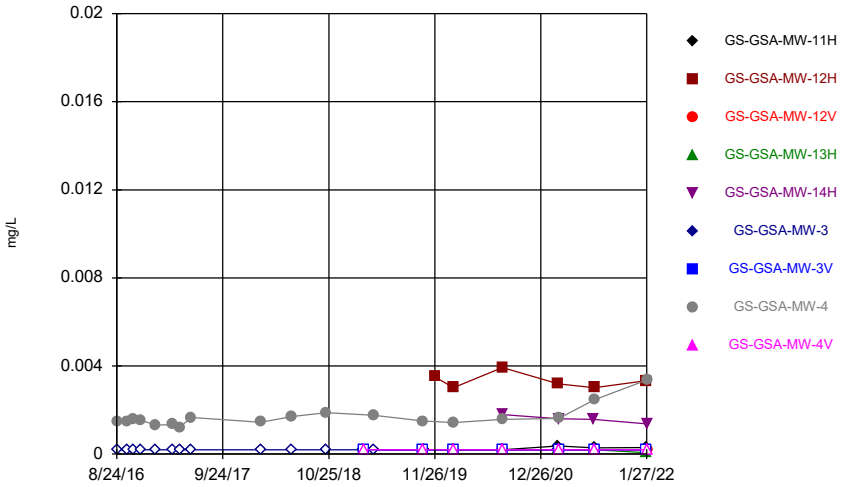

Constituent: Cadmium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

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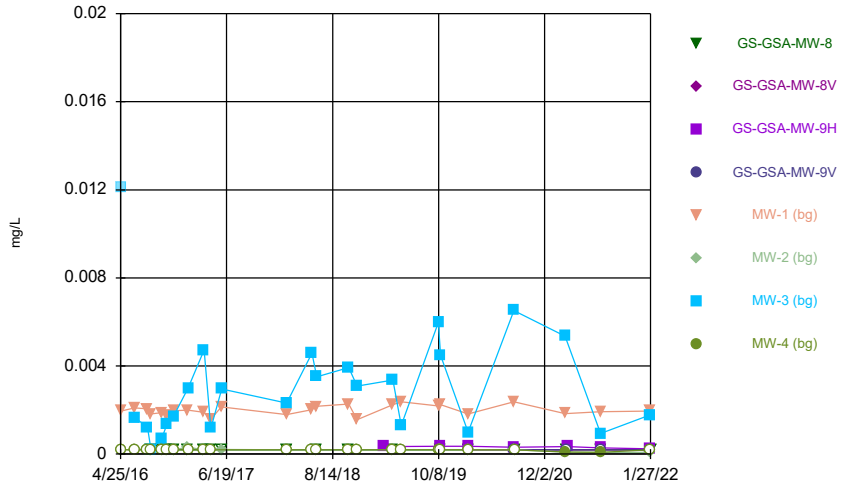
Hollow symbols indicate censored values.

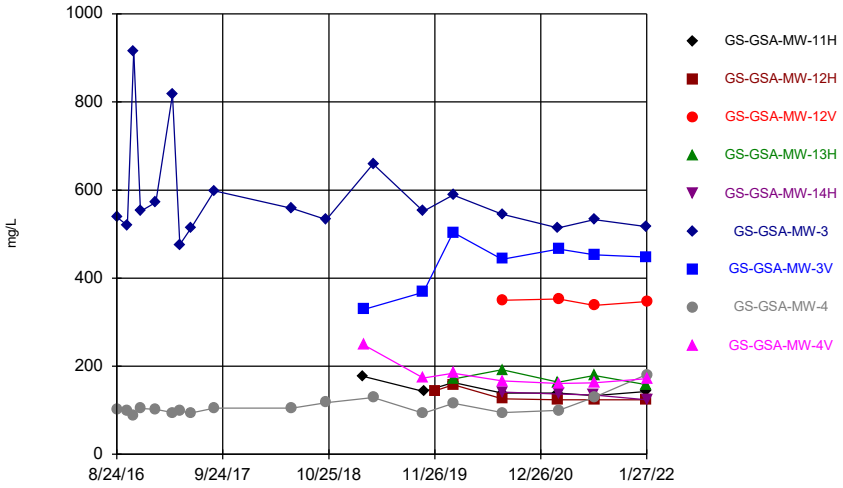
Time Series



Constituent: Cadmium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

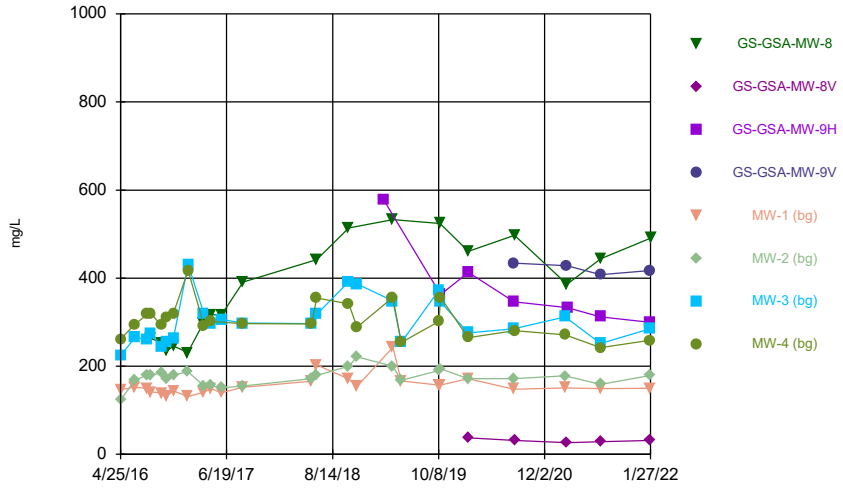
Time Series



Constituent: Calcium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

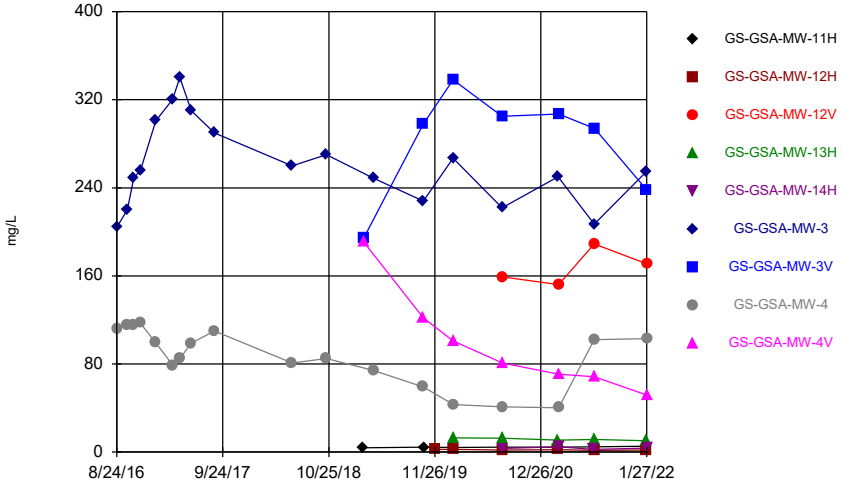
Time Series



Constituent: Calcium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

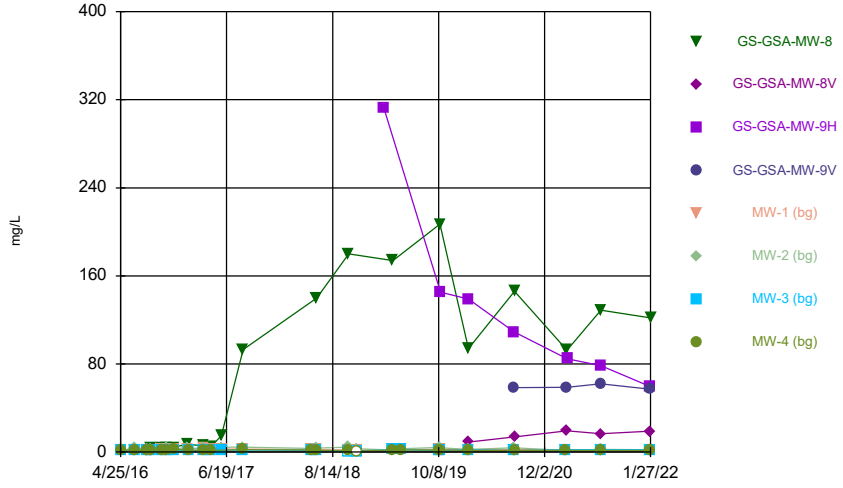
Time Series



Constituent: Chloride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

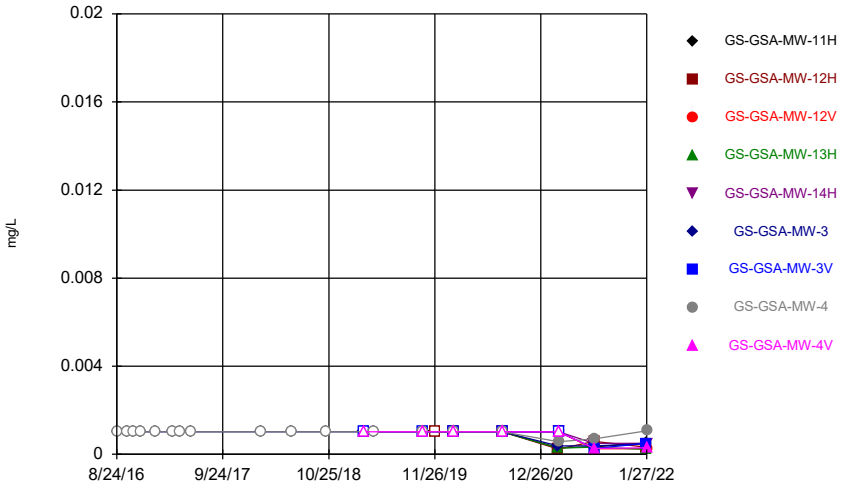
Time Series



Constituent: Chloride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

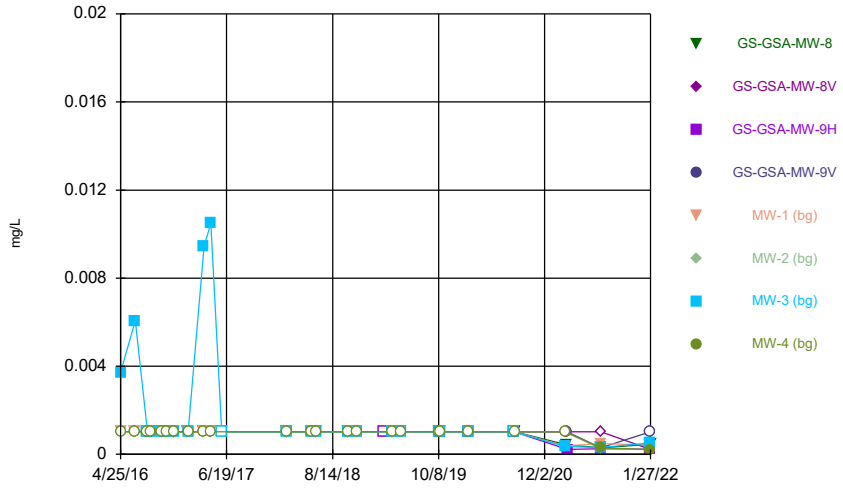
Time Series



Constituent: Chromium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

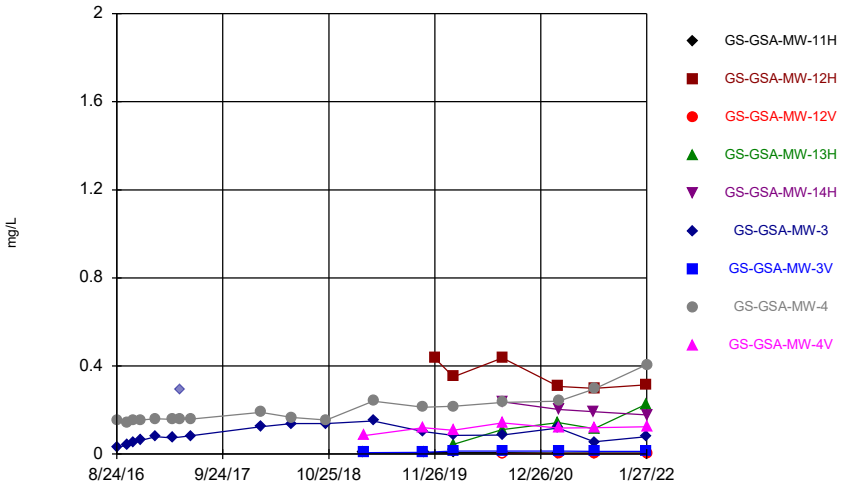
Time Series



Constituent: Chromium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

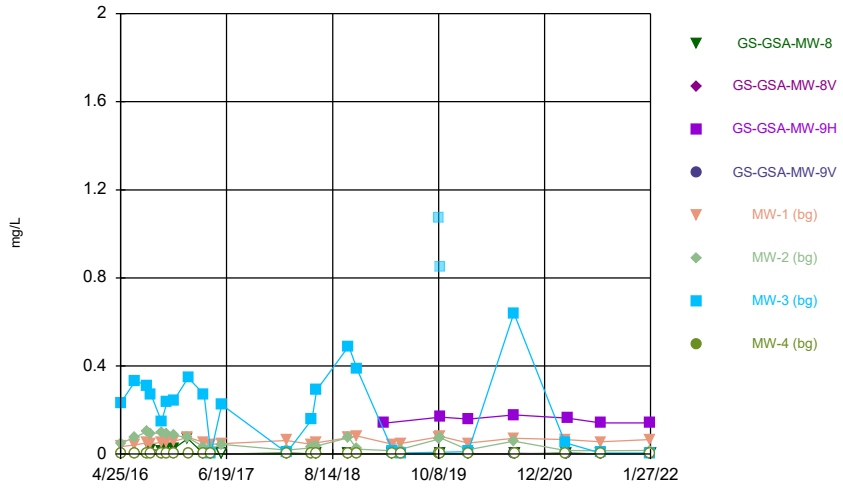
Time Series



Constituent: Cobalt Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

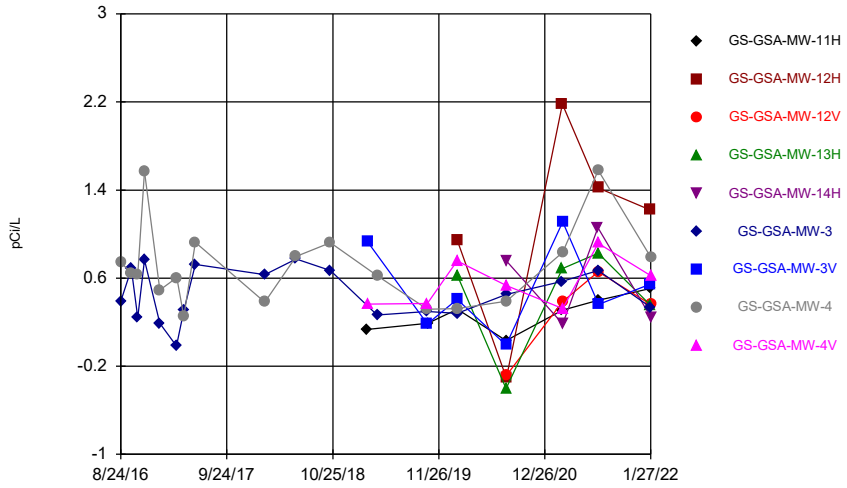
Time Series



Constituent: Cobalt Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

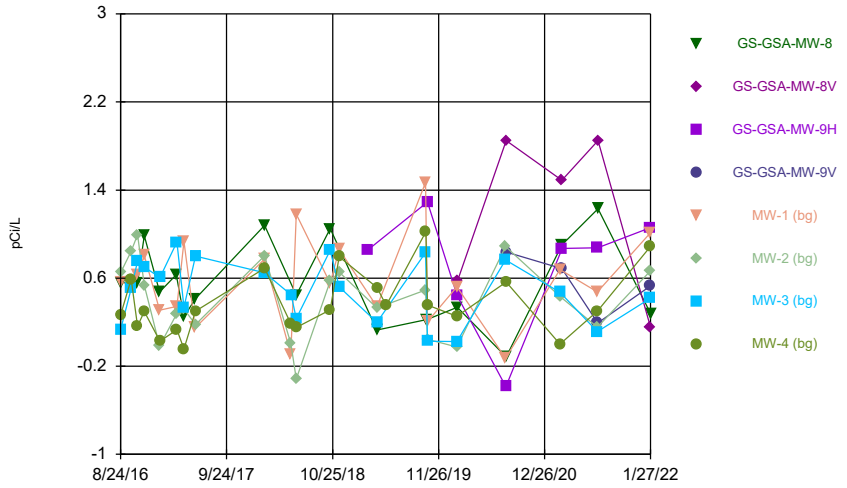
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

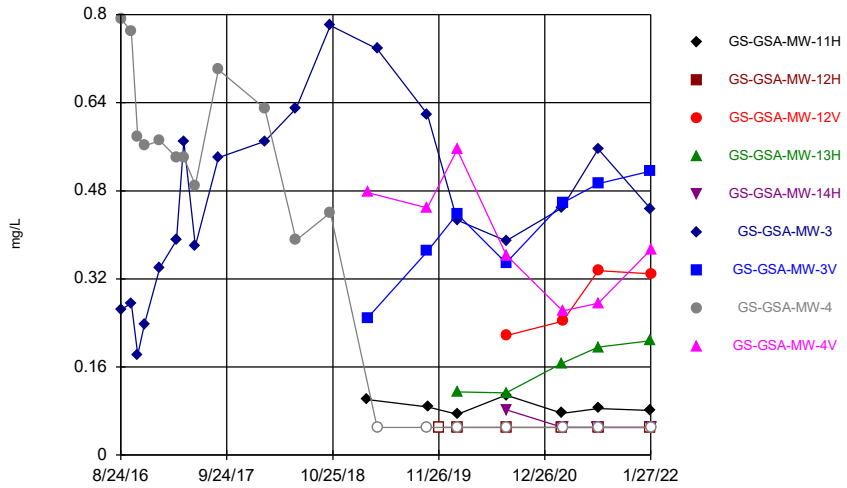
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

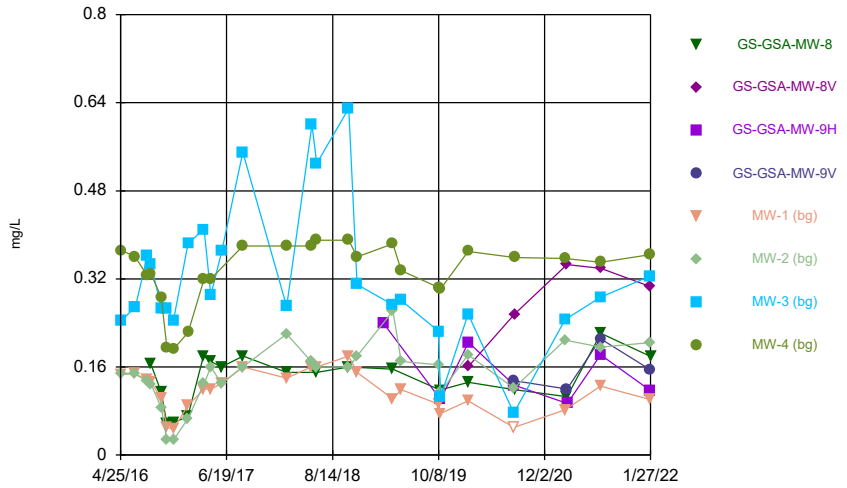
Time Series



Constituent: Fluoride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

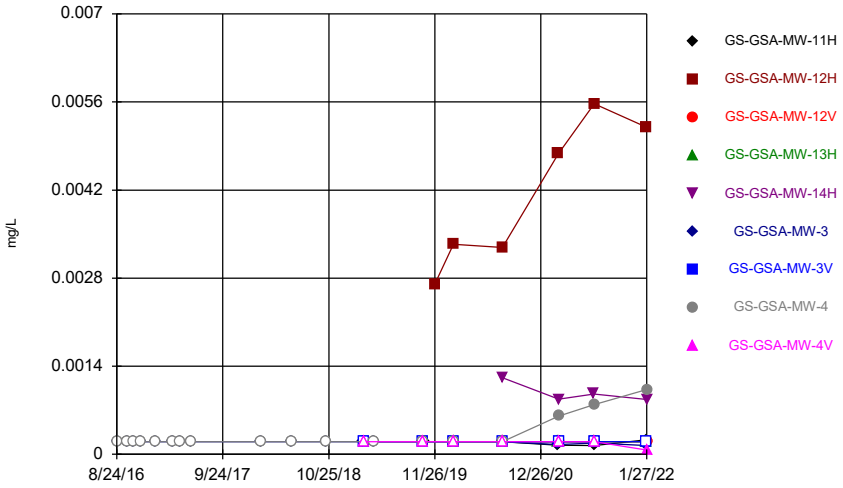
Time Series



Constituent: Fluoride Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

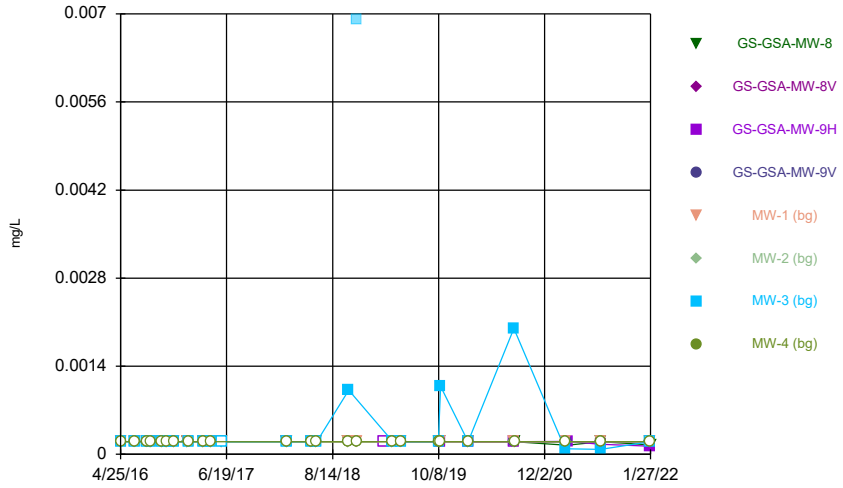
Time Series



Constituent: Lead Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

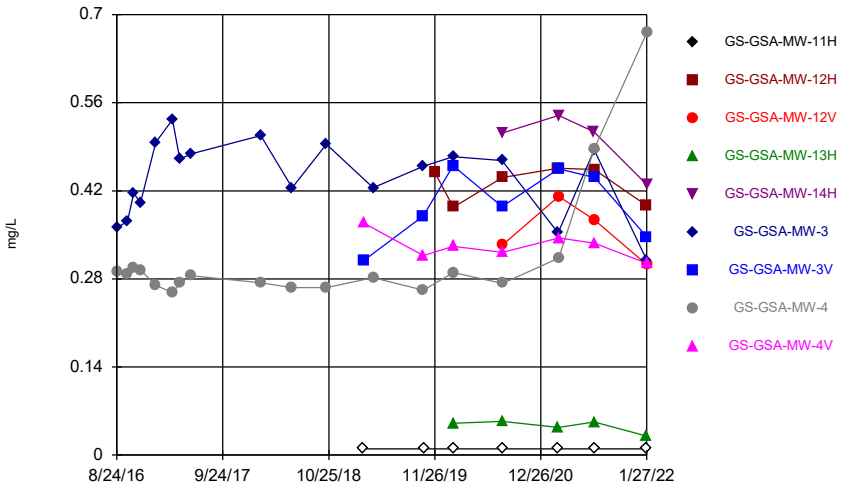
Time Series



Constituent: Lead Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

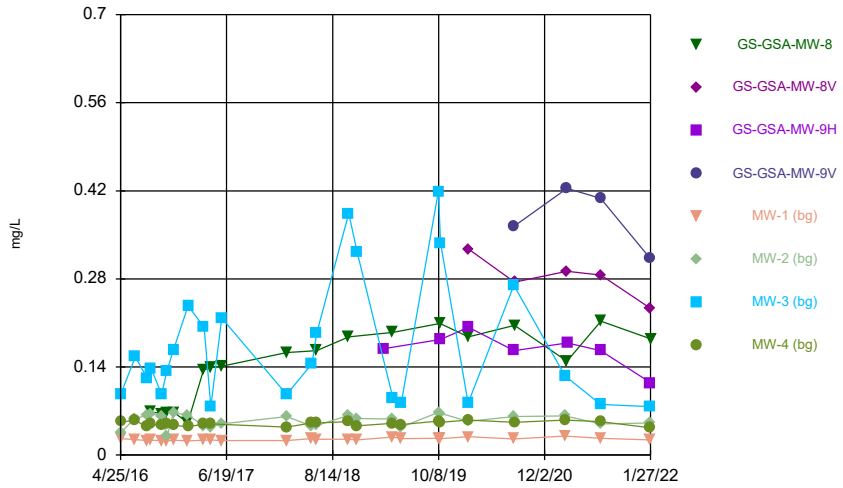
Time Series



Constituent: Lithium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

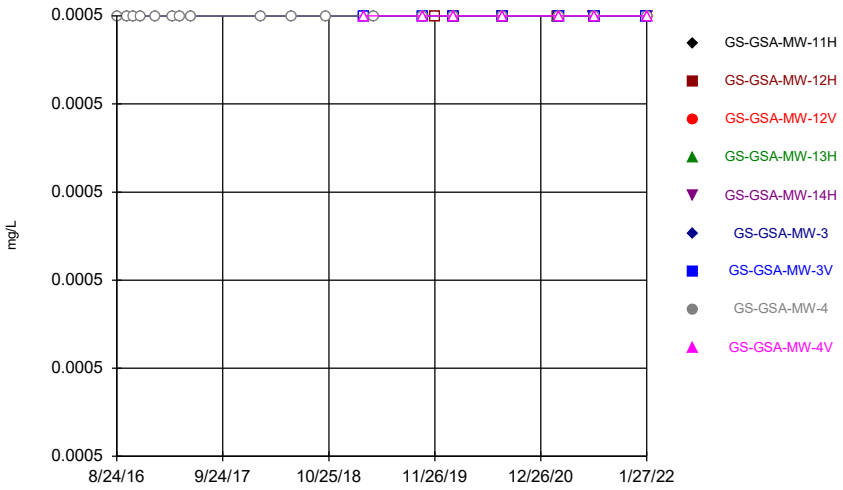
Time Series



Constituent: Lithium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

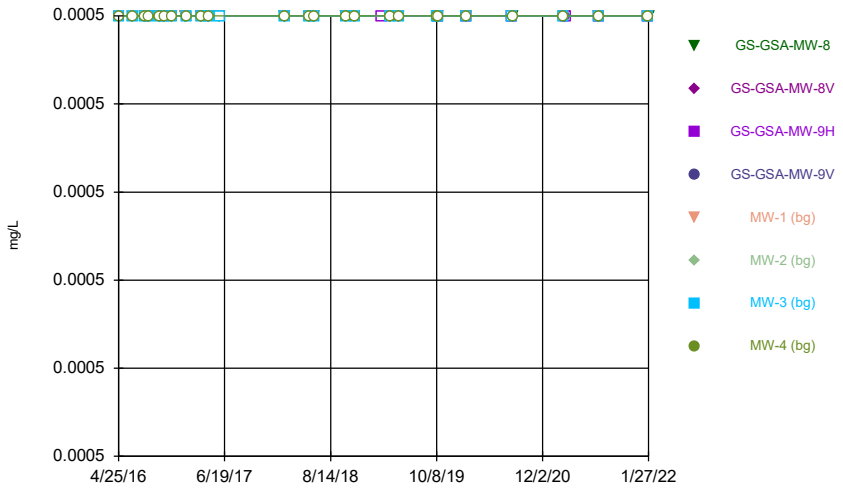
Time Series



Constituent: Mercury Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

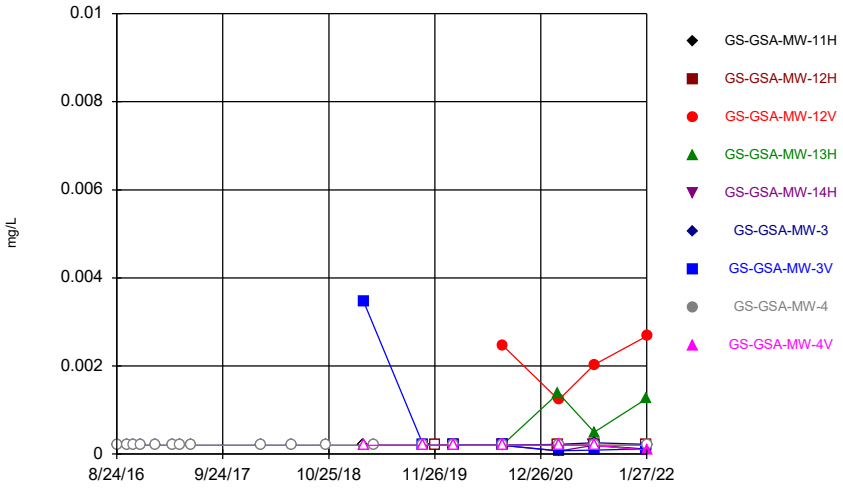
Time Series



Constituent: Mercury Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

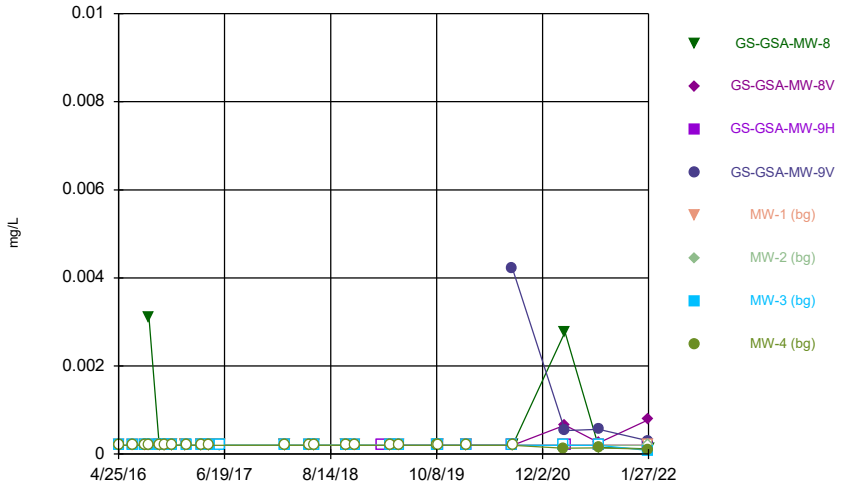
Time Series



Constituent: Molybdenum Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

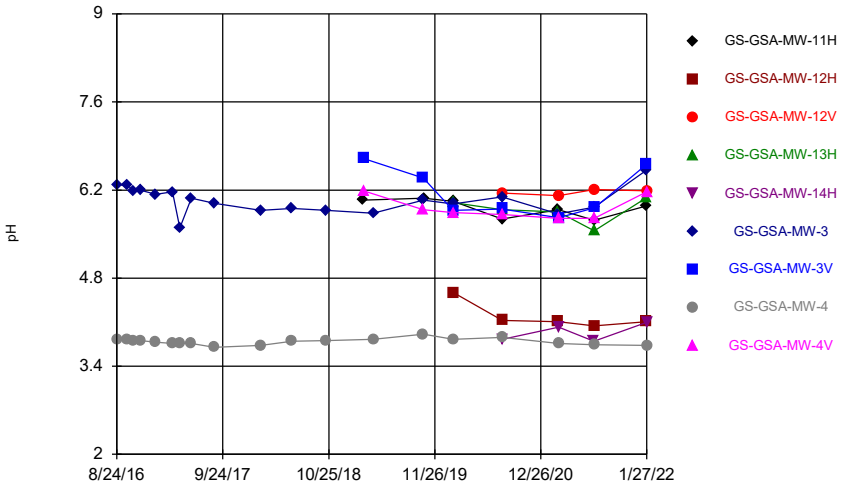
Time Series



Constituent: Molybdenum Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

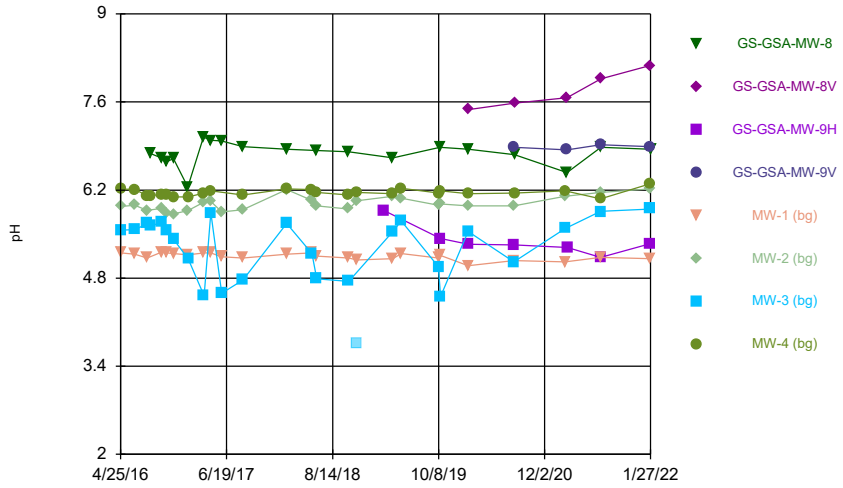
Time Series



Constituent: pH Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

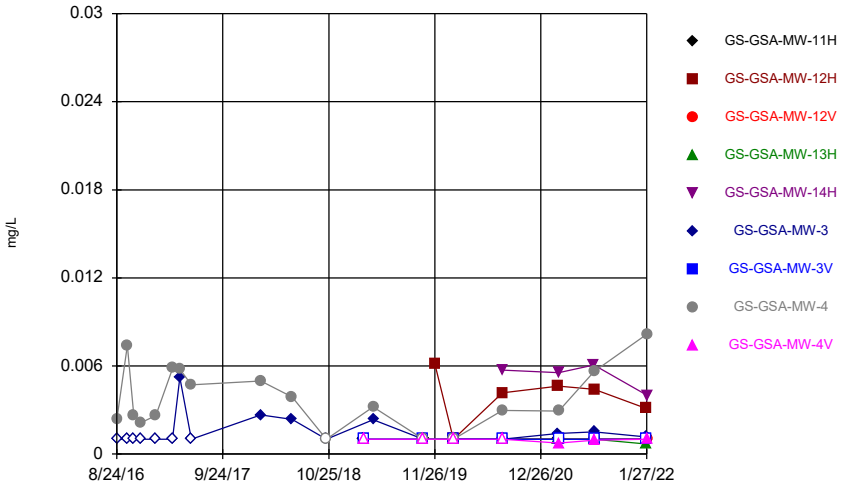
Time Series



Constituent: pH Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

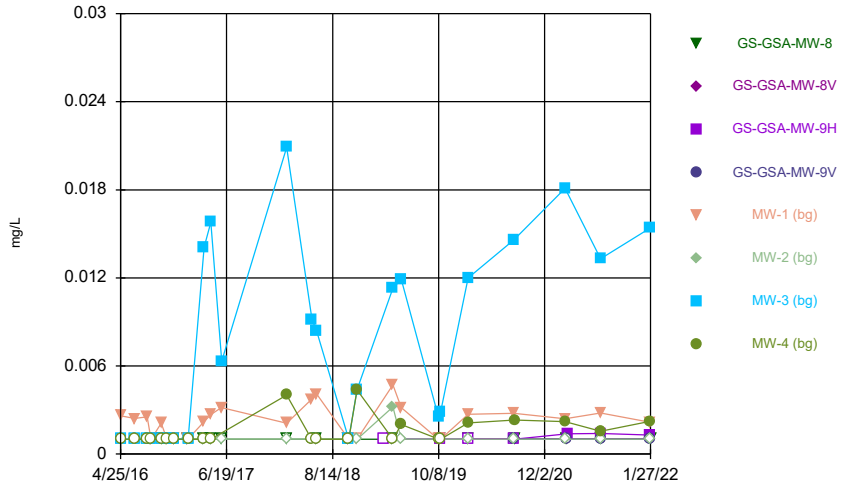
Time Series



Constituent: Selenium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

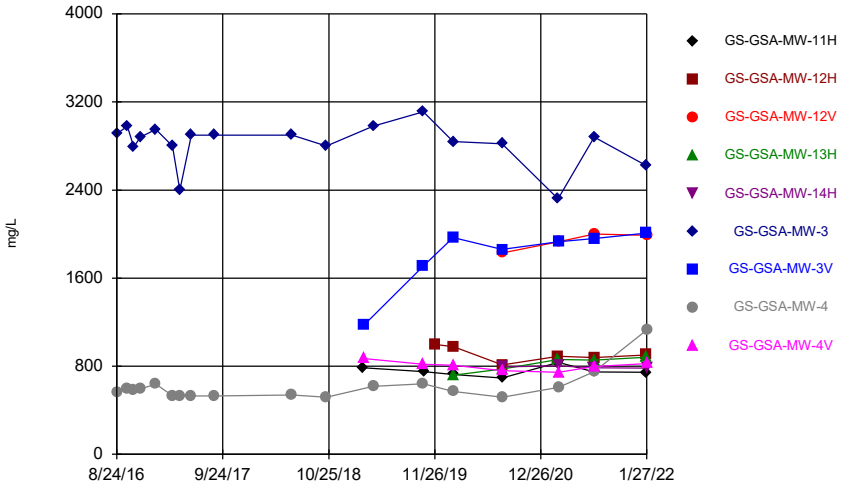
Time Series



Constituent: Selenium Analysis Run 5/11/2022 6:04 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

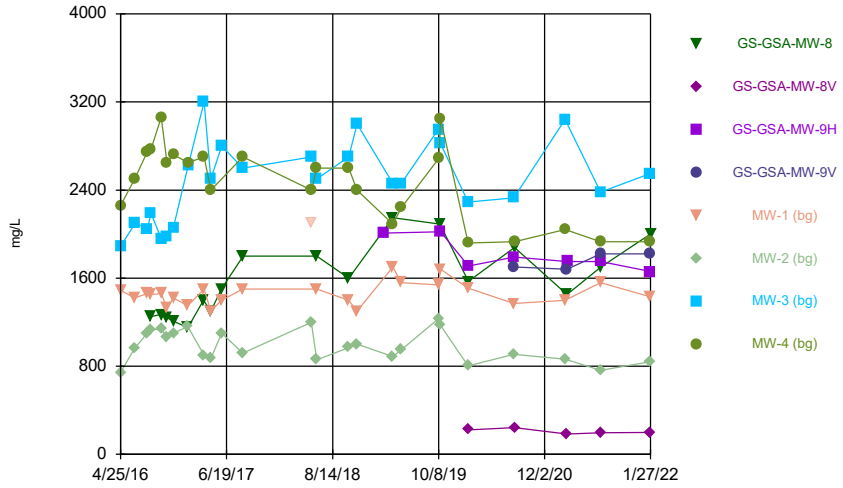
Time Series



Constituent: Sulfate Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

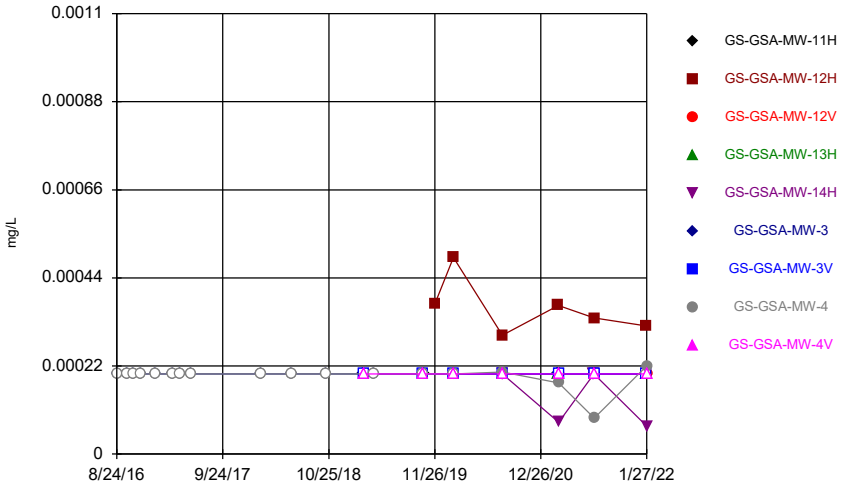
Time Series



Constituent: Sulfate Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

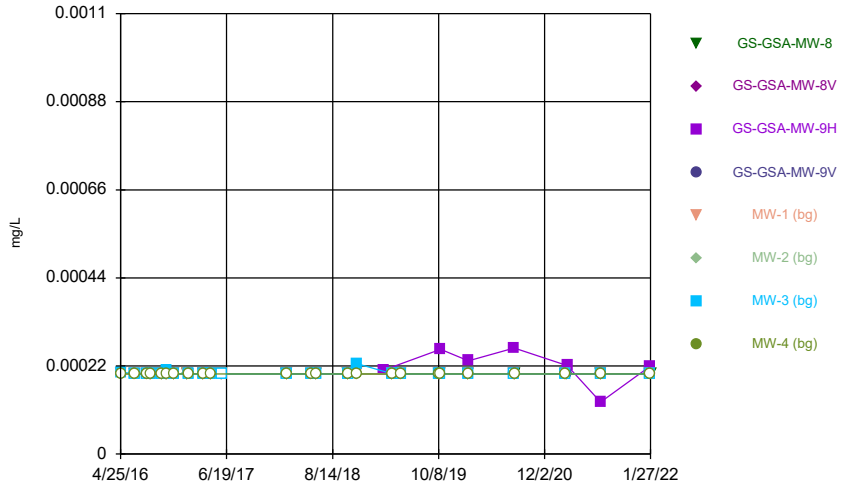
Time Series



Constituent: Thallium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

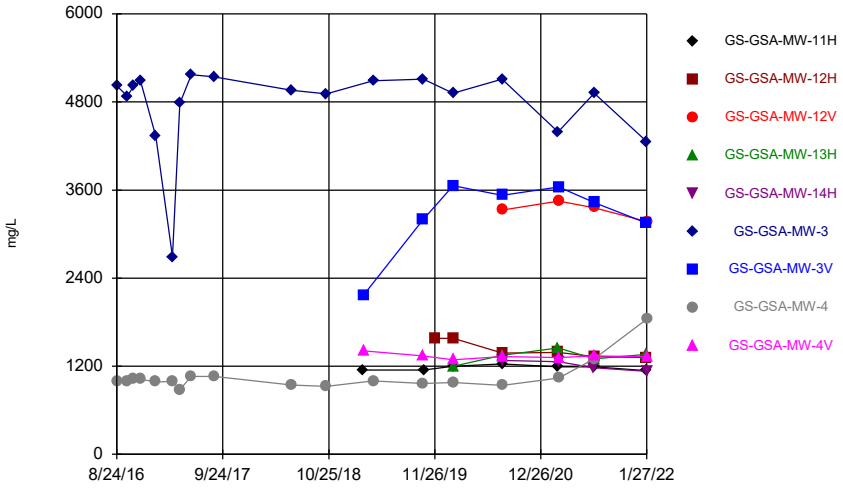
Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

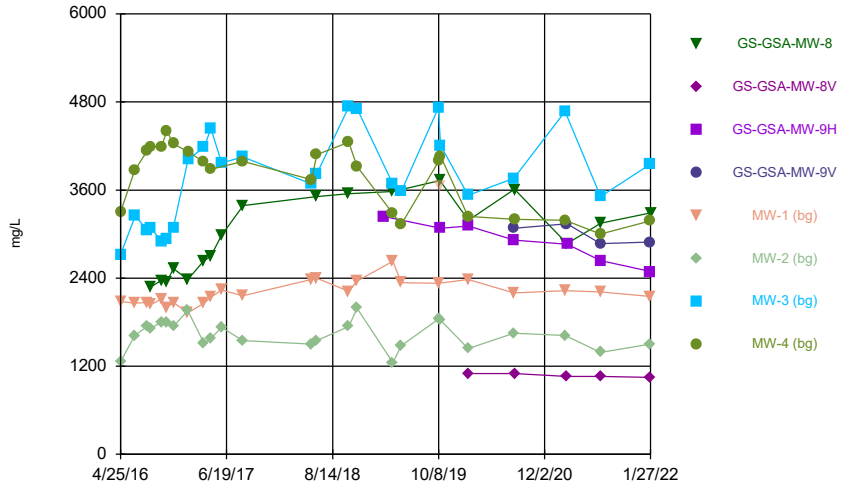
Time Series



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Time Series



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		<0.00102	
10/3/2016						<0.00102		<0.00102	
10/26/2016						<0.00102		<0.00102	
11/21/2016						<0.00102		<0.00102	
1/17/2017						<0.00102		<0.00102	
3/20/2017						<0.00102			
3/21/2017								<0.00102	
4/17/2017						<0.00102		<0.00102	
5/30/2017						<0.00102		<0.00102	
2/13/2018						<0.00102		<0.00102	
6/11/2018						<0.00102		<0.00102	
10/17/2018						<0.00102		<0.00102	
3/4/2019	0.00149 (J)								
3/5/2019							0.00179 (J)		<0.00102
4/10/2019						0.00111 (J)		0.000976 (J)	
10/14/2019						<0.00102	<0.00102	<0.00102	<0.00102
10/16/2019	<0.00102								
11/26/2019		<0.00102							
2/3/2020						<0.00102	<0.00102		<0.00102
2/4/2020	<0.00102	<0.00102		<0.00102				<0.00102	
8/4/2020	<0.00102			<0.00102		<0.00102	<0.00102		
8/5/2020		<0.00102	<0.00102		<0.00102			<0.00102	<0.00102
3/1/2021						<0.00102			
3/2/2021	<0.00102	<0.00102		<0.00102					
3/3/2021			<0.00102		<0.00102		<0.00102	<0.00102	<0.00102
7/13/2021					<0.00102				
7/14/2021	<0.00102	<0.00102	<0.00102	<0.00102		<0.00102		<0.00102	<0.00102
7/15/2021							<0.00102		
1/25/2022		<0.00102							
1/26/2022	<0.00102			<0.00102		0.00066 (J)	0.00052 (J)		
1/27/2022			<0.00102		<0.00102			<0.00102	0.00054 (J)

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	<0.00102	<0.00102
4/26/2016					<0.00102			
6/20/2016					<0.00102	<0.00102		<0.00102
6/22/2016							<0.00102	
8/8/2016					<0.00102	<0.00102		
8/9/2016							<0.00102	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/3/2016	<0.00102				<0.00102	<0.00102		<0.00102
10/4/2016							<0.00102	
10/26/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							<0.00102	<0.00102
3/20/2017	<0.00102							
3/22/2017					<0.00102	<0.00102	<0.00102	<0.00102
4/18/2017	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/30/2017	<0.00102				<0.00102			
5/31/2017						<0.00102	<0.00102	
2/13/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/22/2018					<0.00102	<0.00102		
5/23/2018								<0.00102
5/24/2018							<0.00102	
6/12/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/19/2018					<0.00102	<0.00102	<0.00102	<0.00102
3/5/2019			0.000852 (J)					
4/10/2019	0.00102 (J)				0.00143 (J)	0.000993 (J)	0.000978 (J)	0.00097 (J)
5/14/2019					0.00137 (J)	0.000989 (J)	<0.00102	<0.00102
10/8/2019					<0.00102	<0.00102	<0.00102	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			<0.00102		<0.00102	<0.00102	<0.00102	<0.00102
2/3/2020					<0.00102	<0.00102	<0.00102	<0.00102
2/4/2020	<0.00102		<0.00102					
2/5/2020		<0.00102						
8/3/2020					<0.00102	<0.00102	<0.00102	
8/4/2020			<0.00102	<0.00102				
8/5/2020	<0.00102	<0.00102						<0.00102
2/22/2021					<0.00102	<0.00102	<0.00102	<0.00102
3/1/2021	<0.00102	<0.00102		<0.00102				
3/2/2021			<0.00102					
7/12/2021					<0.00102	<0.00102	<0.00102	<0.00102
7/13/2021			<0.00102	<0.00102				
7/14/2021	<0.00102	<0.00102						
1/25/2022					<0.00102	<0.00102	<0.00102	<0.00102
1/26/2022		<0.00102	<0.00102	<0.00102				
1/27/2022	<0.00102							

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.005		<0.005	
10/3/2016						<0.005		<0.005	
10/26/2016						<0.005		<0.005	
11/21/2016						<0.005		<0.005	
1/17/2017						<0.005		<0.005	
3/20/2017						<0.005			
3/21/2017								<0.005	
4/17/2017						0.00405 (J)		<0.005	
5/30/2017						<0.005		<0.005	
2/13/2018						<0.005		<0.005	
6/11/2018						<0.005		<0.005	
10/17/2018						<0.005		<0.005	
3/4/2019	<0.005								
3/5/2019							<0.005		<0.005
4/10/2019						0.00121 (J)		0.00176 (J)	
10/14/2019						<0.005	<0.005	0.0012 (J)	<0.005
10/16/2019	<0.005								
11/26/2019		0.00194 (J)							
2/3/2020						<0.005	<0.005		0.00101 (J)
2/4/2020	<0.005	0.00157 (J)		0.16				0.00128 (J)	
8/4/2020	<0.005			0.103		<0.005	<0.005		
8/5/2020		0.00158 (J)	<0.005		0.00181 (J)			0.00115 (J)	0.00116 (J)
3/1/2021						0.0014			
3/2/2021	0.00039	0.00138		0.293					
3/3/2021			0.000339		0.00155		0.000296	0.00116	0.00107
7/13/2021					0.00172				
7/14/2021	0.00041	0.00161	0.00048	0.104		0.00057		0.00174	0.00118
7/15/2021							0.00028		
1/25/2022		0.00129							
1/26/2022	0.00043			0.283		0.00136	0.00036		
1/27/2022			0.00066		0.00128			0.00274	0.00124

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.005	<0.005	<0.005
4/26/2016					<0.005			
6/20/2016					<0.005	<0.005		<0.005
6/22/2016							<0.005	
8/8/2016					<0.005	<0.005		
8/9/2016							<0.005	<0.005
8/24/2016	0.00119 (J)				<0.005	<0.005	<0.005	<0.005
10/3/2016	0.00114 (J)				<0.005	<0.005		<0.005
10/4/2016							<0.005	
10/26/2016	0.0011 (J)				<0.005	<0.005	<0.005	<0.005
11/21/2016	<0.005				<0.005	0.00111 (J)	<0.005	<0.005
1/17/2017	0.00103 (J)				<0.005	<0.005		
1/18/2017							<0.005	<0.005
3/20/2017	<0.005							
3/22/2017					<0.005	<0.005	0.00122 (J)	<0.005
4/18/2017	<0.005				<0.005	<0.005	<0.005	<0.005
5/30/2017	<0.005				<0.005			
5/31/2017						<0.005	<0.005	
2/13/2018	<0.005				<0.005	<0.005	<0.005	<0.005
5/22/2018					<0.005	<0.005		
5/23/2018								<0.005
5/24/2018							<0.005	
6/12/2018	<0.005				<0.005	<0.005	0.00103 (J)	<0.005
10/17/2018	<0.005				<0.005	<0.005	0.00133 (J)	<0.005
11/19/2018					<0.005	<0.005	0.0012 (J)	<0.005
3/5/2019			<0.005					
4/10/2019	<0.005				<0.005	<0.005	<0.005	<0.005
5/14/2019					<0.005	<0.005	<0.005	<0.005
10/8/2019					<0.005	<0.005	0.0048 (J)	
10/10/2019								<0.005
10/14/2019	<0.005							
10/16/2019			0.0019 (J)		<0.005	<0.005	0.00389 (J)	<0.005
2/3/2020					<0.005	<0.005	<0.005	<0.005
2/4/2020	<0.005		0.00123 (J)					
2/5/2020		0.00232 (J)						
8/3/2020					<0.005	<0.005	0.00426 (J)	
8/4/2020			0.00137 (J)	<0.005				
8/5/2020	<0.005	0.00476 (J)						<0.005
2/22/2021					0.000403	0.000295	0.000789	0.000125 (J)
3/1/2021	0.000633	0.0105		0.00136				
3/2/2021			0.00105					
7/12/2021					0.00036	0.00036	0.00038	0.00012 (J)
7/13/2021			0.00113	0.00168				
7/14/2021	0.00024	0.00692						
1/25/2022					0.00025	0.00033	0.00027	9E-05 (J)
1/26/2022		0.00542	0.00113	0.00128				
1/27/2022	0.00027							

Time Series

Constituent: Barium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.0155		0.0135	
10/3/2016						0.0156		0.0127	
10/26/2016						0.0122		0.0118	
11/21/2016						0.0128		0.012	
1/17/2017						0.0125		0.0119	
3/20/2017						0.0124			
3/21/2017								0.0116	
4/17/2017						0.0149		0.0112	
5/30/2017						0.0121		0.0117	
2/13/2018						0.0118		0.0121	
6/11/2018						0.0127		0.0139	
10/17/2018						0.013		0.0125	
3/4/2019	0.0239								
3/5/2019							0.0956		0.0136
4/10/2019						0.0153		0.0136	
10/14/2019						0.0122	0.0451	0.0147	0.0123
10/16/2019	0.0192								
11/26/2019		0.0184							
2/3/2020						0.0141	0.0215		0.0103
2/4/2020	0.0148	0.0141		0.0296				0.0124	
8/4/2020	0.0138			0.0275		0.0139	0.017		
8/5/2020		0.016	0.0157		0.0113			0.0142	0.0112
3/1/2021						0.0154			
3/2/2021	0.0118	0.0134		0.0315					
3/3/2021			0.0126		0.0109		0.0181	0.0117	0.0103
7/13/2021					0.0102				
7/14/2021	0.0127	0.013	0.0116	0.0217		0.0136		0.0115	0.01
7/15/2021							0.0157		
1/25/2022		0.013							
1/26/2022	0.0139			0.0334		0.0148	0.0161		
1/27/2022			0.0125		0.0122			0.0131	0.0108

Time Series

Constituent: Barium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0134	0.00803 (J)	0.0114
4/26/2016					0.00941 (J)			
6/20/2016					0.00951 (J)	0.0165		0.0103
6/22/2016							0.0101	
8/8/2016					0.00991 (J)	0.0162		
8/9/2016							0.00889 (J)	0.0119
8/24/2016	0.0536				0.00949 (J)	0.0139	0.00962 (J)	0.0118
10/3/2016	0.0681				0.0105	0.0164		0.0119
10/4/2016							0.00984 (J)	
10/26/2016	0.0562				0.00931 (J)	0.0138	0.00878 (J)	0.0104
11/21/2016	0.0604				0.00879 (J)	0.0144	0.00833 (J)	0.0106
1/17/2017	0.0402				0.00929 (J)	0.0135		
1/18/2017							0.00966 (J)	0.0101
3/20/2017	0.0305							
3/22/2017					0.00938 (J)	0.0132	0.00991 (J)	0.0103
4/18/2017	0.0276				0.00964 (J)	0.012	0.00976 (J)	0.0107
5/30/2017	0.0272				0.00982 (J)			
5/31/2017						0.0126	0.00866 (J)	
2/13/2018	0.0249				0.00937 (J)	0.0127	0.00821 (J)	0.0111
5/22/2018					0.0102	0.0131		
5/23/2018								0.0107
5/24/2018							0.00977 (J)	
6/12/2018	0.0234				0.0104	0.0138	0.00997 (J)	0.0108
10/17/2018	0.0236				0.00952 (J)	0.0137	0.0126	0.0119
11/19/2018					0.00915 (J)	0.0115	0.0109	0.0107
3/5/2019			0.0312					
4/10/2019	0.02				0.0105	0.0111	0.0101	0.0107
5/14/2019					0.00913 (J)	0.0109	0.00922 (J)	0.00949 (J)
10/8/2019					0.0109	0.0151	0.0154	
10/10/2019								0.0116
10/14/2019	0.0215							
10/16/2019			0.0163		0.0106	0.0146	0.0128	0.0125
2/3/2020					0.00995 (J)	0.0122	0.0086 (J)	0.0103
2/4/2020	0.0209		0.0148					
2/5/2020		0.096						
8/3/2020					0.0107	0.0147	0.0166	
8/4/2020			0.0153	0.0155				
8/5/2020	0.0216	0.125						0.0125
2/22/2021					0.0107	0.0132	0.00981	0.0111
3/1/2021	0.0194	0.15		0.012				
3/2/2021			0.0149					
7/12/2021					0.00991	0.013	0.00857	0.0108
7/13/2021			0.0141	0.013				
7/14/2021	0.0232	0.148						
1/25/2022					0.0098	0.0122	0.00821	0.00908
1/26/2022		0.137	0.0146	0.012				
1/27/2022	0.0238							

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		0.00576	
10/3/2016						<0.00102		0.00469	
10/26/2016						0.000922 (J)		0.00459	
11/21/2016						0.00133 (J)		0.00502	
1/17/2017						0.0017 (J)		0.00488	
3/20/2017						0.00191 (J)			
3/21/2017								0.00521	
4/17/2017						0.00655		0.0058	
5/30/2017						0.00204 (J)		0.00517	
2/13/2018						0.00387		0.00544	
6/11/2018						0.00244 (J)		0.00463	
10/17/2018						0.00345		0.00369	
3/4/2019	<0.00102								
3/5/2019							<0.00102		0.00155 (J)
4/10/2019						0.00257 (J)		0.00469	
10/14/2019						0.00162 (J)	<0.00102	0.00403	0.00382
10/16/2019	<0.00102								
11/26/2019		0.0084							
2/3/2020						0.00141 (J)	<0.00102		0.00362
2/4/2020	<0.00102	0.00709		<0.00102				0.00415	
8/4/2020	<0.00102			<0.00102		0.00174 (J)	<0.00102		
8/5/2020		0.00747	<0.00102		0.00879			0.00385	0.00416
3/1/2021						0.00157			
3/2/2021	<0.00102	0.00703		<0.00102					
3/3/2021			<0.00102		0.00818		<0.00102	0.00406	0.0032
7/13/2021					0.00883				
7/14/2021	<0.00102	0.00755	<0.00102	<0.00102		0.00175		0.00577	0.00381
7/15/2021							<0.00102		
1/25/2022		0.00729							
1/26/2022	<0.00102			<0.00102		0.00179	<0.00102		
1/27/2022			<0.00102		0.00718			0.00768	0.00431

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	0.00122 (J)	<0.00102
4/26/2016					<0.00102			
6/20/2016					<0.00102	<0.00102		<0.00102
6/22/2016							0.00144 (J)	
8/8/2016					<0.00102	<0.00102		
8/9/2016							0.00331	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	0.00308	<0.00102
10/3/2016	<0.00102				<0.00102	<0.00102		<0.00102
10/4/2016							0.00129 (J)	
10/26/2016	<0.00102				<0.00102	<0.00102	0.0071	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	0.00689	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							0.0169 (o)	<0.00102
3/20/2017	<0.00102							
3/22/2017					<0.00102	<0.00102	0.00686	<0.00102
4/18/2017	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/30/2017	<0.00102				<0.00102			
5/31/2017						<0.00102	0.00547	
2/13/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/22/2018					<0.00102	<0.00102		
5/23/2018								<0.00102
5/24/2018							0.00164 (J)	
6/12/2018	<0.00102				<0.00102	<0.00102	0.00306	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	0.0121	<0.00102
11/19/2018					<0.00102	<0.00102	0.0185 (o)	<0.00102
3/5/2019			<0.00102					
4/10/2019	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/14/2019					<0.00102	<0.00102	<0.00102	<0.00102
10/8/2019					<0.00102	<0.00102	0.0084	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			0.000985 (J)		<0.00102	<0.00102	0.0103	<0.00102
2/3/2020					<0.00102	<0.00102	<0.00102	<0.00102
2/4/2020	<0.00102		0.000929 (J)					
2/5/2020		<0.00102						
8/3/2020					<0.00102	<0.00102	0.00405	
8/4/2020			0.000882 (J)	<0.00102				
8/5/2020	<0.00102	<0.00102						<0.00102
2/22/2021					<0.00102	<0.00102	<0.00102	<0.00102
3/1/2021	<0.00102	<0.00102		<0.00102				
3/2/2021			0.000724 (J)					
7/12/2021					<0.00102	<0.00102	<0.00102	<0.00102
7/13/2021			0.00073 (J)	<0.00102				
7/14/2021	<0.00102	<0.00102						
1/25/2022					<0.00102	<0.00102	<0.00102	<0.00102
1/26/2022		<0.00102	0.00063 (J)	<0.00102				
1/27/2022	<0.00102							

Time Series

Constituent: Boron (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.799		4.88	
10/3/2016						0.889		4.75	
10/26/2016						1.23		4.96	
11/21/2016						1.72		4.82	
1/17/2017						2.63		3.97	
3/20/2017						3.11			
3/21/2017								3.39	
4/17/2017						4.51		3.46	
5/30/2017						2.9		3.79	
8/24/2017						2.83		4.19	
6/11/2018						3.09		3.96	
10/17/2018						2.59		3.98	
3/4/2019	0.0235 (J)								
3/5/2019							0.895		7.15
4/10/2019						3.35		3.74	
10/14/2019						2.48	2.38	3.37	5.64
10/16/2019	0.0352 (J)								
11/26/2019		0.0798 (J)							
2/3/2020						2.13	3.06		5.25
2/4/2020	<0.1015	0.0748 (J)		0.202				2.74	
8/4/2020	<0.1015			0.263		1.82	2.8		
8/5/2020		0.0748 (J)	1.55		0.158			2.51	4.41
3/1/2021						2.55			
3/2/2021	0.0305 (J)	0.0875 (J)		0.206					
3/3/2021			1.54		0.203		2.99	2.42	4.09
7/13/2021					0.139				
7/14/2021	<0.1015	0.0742 (J)	1.55	0.229		1.47		4.78	3.68
7/15/2021							3.04		
1/25/2022		0.0645 (J)							
1/26/2022	<0.1015			0.206		2.5	2.81		
1/27/2022			1.52		0.148			6.1	3.47

Time Series

Constituent: Boron (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0241 (J)	0.028 (J)	0.0414 (J)
4/26/2016					0.0231 (J)			
6/20/2016					0.0227 (J)	0.0284 (J)		0.0434 (J)
6/22/2016							0.0433 (J)	
8/8/2016					0.0278 (J)	0.034 (J)		
8/9/2016							0.0429 (J)	0.0453 (J)
8/24/2016	0.0898 (J)				0.0247 (J)	0.0316 (J)	0.0431 (J)	0.0451 (J)
10/3/2016	0.0821 (J)				0.0307 (J)	0.0367 (J)		0.0511 (J)
10/4/2016							0.04 (J)	
10/26/2016	0.0889 (J)				0.0241 (J)	0.0331 (J)	0.0375 (J)	0.0507 (J)
11/21/2016	0.0788 (J)				0.0202 (J)	0.035 (J)	0.0406 (J)	0.0458 (J)
1/17/2017	0.0607 (J)				0.0201 (J)	0.0259 (J)		
1/18/2017							0.0548 (J)	0.0445 (J)
3/20/2017	0.114							
3/22/2017					0.0224 (J)	0.0243 (J)	0.0344 (J)	0.0432 (J)
4/18/2017	0.108				<0.1015	0.0206 (J)	<0.1015	0.0409 (J)
5/30/2017	0.105				<0.1015			
5/31/2017						0.0234 (J)	0.0454 (J)	
8/23/2017					0.0253 (J)	0.0267 (J)	0.0425 (J)	0.042 (J)
8/24/2017	0.12							
5/22/2018					0.0224 (J)	0.0251 (J)		
5/23/2018								0.0433 (J)
5/24/2018							0.0339 (J)	
6/12/2018	0.181				0.0214 (J)	0.0275 (J)	0.0371 (J)	0.0478 (J)
10/17/2018	0.616				0.0216 (J)	0.0321 (J)	0.0596 (J)	0.0468 (J)
11/19/2018					0.0237 (J)	0.0324 (J)	0.0514 (J)	0.0526 (J)
3/5/2019			12.8					
4/10/2019	0.944				0.0304 (J)	<0.1015	<0.1015	0.0438 (J)
5/14/2019					<0.1015	<0.1015	<0.1015	<0.203 (o)
10/8/2019					<0.1015	0.0371 (J)	0.0537 (J)	
10/10/2019								0.0487 (J)
10/14/2019	2.11							
10/16/2019			10.7		0.0385 (J)	0.0419 (J)	0.05 (J)	0.0505 (J)
2/3/2020					<0.1015	<0.1015	<0.1015	0.0433 (J)
2/4/2020	1.47		9.63					
2/5/2020		0.136						
8/3/2020					<0.1015	0.0317 (J)	0.0424 (J)	
8/4/2020			8.53	0.149				
8/5/2020	2.16	0.131						0.0459 (J)
2/22/2021					0.0307 (J)	<0.1015	<0.1015	0.0397 (J)
3/1/2021	1.85	0.145		0.147				
3/2/2021			6.68					
7/12/2021					<0.1015	<0.1015	<0.1015	0.0411 (J)
7/13/2021			5.84	0.125				
7/14/2021	2.07	0.147						
1/25/2022					<0.1015	<0.1015	<0.1015	0.0408 (J)
1/26/2022		0.153	5.87	0.11				
1/27/2022	2.76							

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		0.00148	
10/3/2016						<0.0002		0.00147	
10/26/2016						<0.0002		0.00157	
11/21/2016						<0.0002		0.00154	
1/17/2017						<0.0002		0.00131	
3/20/2017						<0.0002			
3/21/2017								0.00134	
4/17/2017						<0.0002		0.00122	
5/30/2017						<0.0002		0.00167	
2/13/2018						<0.0002		0.00145	
6/11/2018						<0.0002		0.00171	
10/17/2018						<0.0002		0.00188	
3/4/2019	<0.0002								
3/5/2019							<0.0002		<0.0002
4/10/2019						<0.0002		0.00176	
10/14/2019						<0.0002	<0.0002	0.0015	<0.0002
10/16/2019	<0.0002								
11/26/2019		0.00351							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	0.00301		<0.0002				0.00143	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		0.00393	<0.0002		0.0018			0.00157	<0.0002
3/1/2021						<0.0002			
3/2/2021	0.000366	0.00319		<0.0002					
3/3/2021			<0.0002		0.0016		<0.0002	0.00162	<0.0002
7/13/2021					0.00157				
7/14/2021	0.00028	0.00301	<0.0002	<0.0002		<0.0002		0.00246	<0.0002
7/15/2021							<0.0002		
1/25/2022		0.00333							
1/26/2022	0.00029			7E-05 (J)		<0.0002	<0.0002		
1/27/2022			<0.0002		0.00137			0.00336	<0.0002

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	0.0121 (o)	<0.0002
4/26/2016					0.00196			
6/20/2016					0.0021	<0.0002		<0.0002
6/22/2016							0.00163	
8/8/2016					0.00206	<0.0002		
8/9/2016							0.00122	<0.0002
8/24/2016	<0.0002				0.00182	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				0.00188	<0.0002		<0.0002
10/4/2016							0.000689 (J)	
10/26/2016	<0.0002				0.00175	<0.0002	0.00136	<0.0002
11/21/2016	<0.0002				0.00197	<0.0002	0.00171	<0.0002
1/17/2017	<0.0002				0.002	0.000311 (J)		
1/18/2017							0.003	<0.0002
3/20/2017	<0.0002							
3/22/2017					0.0019	<0.0002	0.00473	<0.0002
4/18/2017	<0.0002				0.00159	<0.0002	0.00117	<0.0002
5/30/2017	<0.0002				0.00214			
5/31/2017						0.000212 (J)	0.00296	
2/13/2018	<0.0002				0.0018	<0.0002	0.00232	<0.0002
5/22/2018					0.00201	<0.0002		
5/23/2018								<0.0002
5/24/2018							0.00459	
6/12/2018	<0.0002				0.00217	<0.0002	0.00351	<0.0002
10/17/2018	<0.0002				0.00228	<0.0002	0.00393	<0.0002
11/19/2018					0.00156	<0.0002	0.00309	<0.0002
3/5/2019			0.000336 (J)					
4/10/2019	<0.0002				0.00224	<0.0002	0.00337	<0.0002
5/14/2019					0.00238	<0.0002	0.0013	<0.0002
10/8/2019					0.00218	<0.0002	0.00598	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			0.000362 (J)		0.00225	<0.0002	0.00448	<0.0002
2/3/2020					0.00182	<0.0002	0.000988 (J)	<0.0002
2/4/2020	<0.0002		0.000349 (J)					
2/5/2020		<0.0002						
8/3/2020					0.00237	<0.0002	0.00652	
8/4/2020			0.000308 (J)	<0.0002				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					0.00184	8.96E-05 (J)	0.00536	8.96E-05 (J)
3/1/2021	<0.0002	<0.0002		<0.0002				
3/2/2021			0.000338					
7/12/2021					0.00193	8E-05 (J)	0.00094	8E-05 (J)
7/13/2021			0.00028	<0.0002				
7/14/2021	<0.0002	<0.0002						
1/25/2022					0.00196	8E-05 (J)	0.00178	<0.0002
1/26/2022		<0.0002	0.00024	<0.0002				
1/27/2022	<0.0002							

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						539		102	
10/3/2016						519.7		98.4	
10/26/2016						916		88.7	
11/21/2016						552		104	
1/17/2017						572		102	
3/20/2017						817			
3/21/2017								94.7	
4/17/2017						476		97.9	
5/30/2017						515		93.9	
8/24/2017						598		105	
6/11/2018						558		105	
10/17/2018						533		117	
3/4/2019	177								
3/5/2019							329		249
4/10/2019						659		129	
10/14/2019						552	368	93.5	173
10/16/2019	143								
11/26/2019		144							
2/3/2020						589	504		184
2/4/2020	163	158		171				116	
8/4/2020	139			192		545	443		
8/5/2020		126	350		141			94.7	167
3/1/2021						514			
3/2/2021	139	124		164					
3/3/2021			353		137		466	100	161
7/13/2021					135				
7/14/2021	133	124	338	179		533		130	162
7/15/2021							453		
1/25/2022		124							
1/26/2022	143			158		517	448		
1/27/2022			347		124			181	172

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						123	224	261
4/26/2016					147			
6/20/2016					152	168		295
6/22/2016							266	
8/8/2016					150	180		
8/9/2016							260	318
8/24/2016	263				142	180	274	319
10/3/2016	253				139	184		293
10/4/2016							243	
10/26/2016	235				133	171	254	311
11/21/2016	246				144	179	263	320
1/17/2017	231				131	188		
1/18/2017							431	417
3/20/2017	298							
3/22/2017					141	155	318	292
4/18/2017	317				149	156	296	302
5/30/2017	316				140			
5/31/2017						151	306	
8/23/2017					152	155	298	297
8/24/2017	391							
5/22/2018					166	172		
5/23/2018								296
5/24/2018							297	
6/12/2018	442				203	179	318	355
10/17/2018	514				171	200	392	342
11/19/2018					154	221	387	289
3/5/2019			578					
4/10/2019	533				243	200	348	356
5/14/2019					167	168	254	254
10/8/2019					157	190	371	
10/10/2019								302
10/14/2019	524							
10/16/2019			363		157	194	346	356
2/3/2020					172	172	276	265
2/4/2020	461		413					
2/5/2020		37.3						
8/3/2020					148	172	285	
8/4/2020			346	434				
8/5/2020	497	31.9						281
2/22/2021					151	178	312	271
3/1/2021	386	26.2		428				
3/2/2021			333					
7/12/2021					149	159	252	242
7/13/2021			312	408				
7/14/2021	444	29						
1/25/2022					150	179	285	259
1/26/2022		31.5	300	417				
1/27/2022	491							

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						204		112	
10/3/2016						220		115	
10/26/2016						249		115	
11/21/2016						256		117	
1/17/2017						301		99.3	
3/20/2017						320			
3/21/2017								79	
4/17/2017						340		85	
5/30/2017						310		99	
8/24/2017						290		110	
6/11/2018						260		81	
10/17/2018						270		85	
3/4/2019	3.81								
3/5/2019							194		191
4/10/2019						249		74.3	
10/14/2019						228	298	59.1	122
10/16/2019	4.45								
11/26/2019		2.43							
2/3/2020						267	338		101
2/4/2020	4.27	2.34		12.9				43.2	
8/4/2020	4.51			12.7		222	305		
8/5/2020		2	159		3.28			41	80.9
3/1/2021						250			
3/2/2021	4.63	2.28		10.9					
3/3/2021			152		4.8		307	40.3	70.8
7/13/2021					2.41				
7/14/2021	4.7	1.69	189	11.5		207		102	68.4
7/15/2021							294		
1/25/2022		1.83							
1/26/2022	5.4			10.2		255	238		
1/27/2022			171		3.75			103	51.9

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						1.9	1.32	1.53
4/26/2016					1.94			
6/20/2016					2.09	3.43		1.85
6/22/2016							1.46	
8/8/2016					2.18	3.31		
8/9/2016							1.35	1.95
8/24/2016	4.03				2.22	3.23	1.47	2.07
10/3/2016	3.87				2.34	3.21		2.02
10/4/2016							1.59	
10/26/2016	4.08				2.34	3.35	1.27	2.07
11/21/2016	4.39				2.5	3.34	1.38	2.39
1/17/2017	7.22				2.68	3.58		
1/18/2017							1.34	1.9
3/20/2017	5.7							
3/22/2017					3.7	3.4	2	1.5 (J)
4/18/2017	4.7				2.4	2.6	2.2	1.6 (J)
5/30/2017	15				2.6			
5/31/2017						4.4	1.5 (J)	
8/23/2017					2.7	4.4	1.8 (J)	2.3
8/24/2017	93							
5/22/2018					2.3	3.2		
5/23/2018								2
5/24/2018							1.6 (J)	
6/12/2018	140				2.3	3.7	1.4 (J)	1.7 (J)
10/17/2018	180				1.7 (J)	4.6	<2	1.5 (J)
11/19/2018					1.7 (J)	3	<2	<2
3/5/2019			313					
4/10/2019	174				2.36	1.76	2.25	1.88
5/14/2019					2.28	2.98	2.28	1.82
10/8/2019					2.31	4.26	1.36	
10/10/2019								1.93
10/14/2019	207							
10/16/2019			145		2.42	4.04	1.4	1.92
2/3/2020					2.07	2.48	2.12	1.72
2/4/2020	94.1		139					
2/5/2020		9.05						
8/3/2020					2.05	4.03	1.17	
8/4/2020			109	58.6				
8/5/2020	146	13.9						1.57
2/22/2021					2.16	1.72	2.22	1.52
3/1/2021	92.5	19.4		58.7				
3/2/2021			84.7					
7/12/2021					2.19	2.36	2.13	1.56
7/13/2021			78.6	62				
7/14/2021	129	16.7						
1/25/2022					2.09	2.14	2.12	1.54
1/26/2022		18.9	59.3	57.2				
1/27/2022	122							

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		<0.00102	
10/3/2016						<0.00102		<0.00102	
10/26/2016						<0.00102		<0.00102	
11/21/2016						<0.00102		<0.00102	
1/17/2017						<0.00102		<0.00102	
3/20/2017						<0.00102			
3/21/2017								<0.00102	
4/17/2017						<0.00102		<0.00102	
5/30/2017						<0.00102		<0.00102	
2/13/2018						<0.00102		<0.00102	
6/11/2018						<0.00102		<0.00102	
10/17/2018						<0.00102		<0.00102	
3/4/2019	<0.00102								
3/5/2019							<0.00102		<0.00102
4/10/2019						<0.00102		<0.00102	
10/14/2019						<0.00102	<0.00102	<0.00102	<0.00102
10/16/2019	<0.00102								
11/26/2019		<0.00102							
2/3/2020						<0.00102	<0.00102		<0.00102
2/4/2020	<0.00102	<0.00102		<0.00102				<0.00102	
8/4/2020	<0.00102			<0.00102		<0.00102	<0.00102		
8/5/2020		<0.00102	<0.00102		<0.00102			<0.00102	<0.00102
3/1/2021						0.000386 (J)			
3/2/2021	0.000295 (J)	0.000242 (J)		0.000285 (J)					
3/3/2021			<0.00102		<0.00102		<0.00102	0.000567 (J)	<0.00102
7/13/2021					0.0005 (J)				
7/14/2021	0.00034 (J)	0.00059 (J)	0.00025 (J)	0.00032 (J)		0.00039 (J)		0.0007 (J)	0.00027 (J)
7/15/2021							0.00027 (J)		
1/25/2022		0.00033 (J)							
1/26/2022	0.00052 (J)			0.00023 (J)		0.00048 (J)	0.0005 (J)		
1/27/2022			0.00025 (J)		0.0005 (J)			0.00107	0.00029 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	0.00373 (J)	<0.00102
4/26/2016					<0.00102			
6/20/2016					<0.00102	<0.00102		<0.00102
6/22/2016							0.00606 (J)	
8/8/2016					<0.00102	<0.00102		
8/9/2016							<0.00102	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/3/2016	<0.00102				<0.00102	<0.00102		<0.00102
10/4/2016							<0.00102	
10/26/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							<0.00102	<0.00102
3/20/2017	<0.00102							
3/22/2017					<0.00102	<0.00102	0.00945 (J)	<0.00102
4/18/2017	<0.00102				<0.00102	<0.00102	0.0105	<0.00102
5/30/2017	<0.00102				<0.00102			
5/31/2017						<0.00102	<0.00102	
2/13/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/22/2018					<0.00102	<0.00102		
5/23/2018								<0.00102
5/24/2018							<0.00102	
6/12/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/19/2018					<0.00102	<0.00102	<0.00102	<0.00102
3/5/2019			<0.00102					
4/10/2019	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
5/14/2019					<0.00102	<0.00102	<0.00102	<0.00102
10/8/2019					<0.00102	<0.00102	<0.00102	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			<0.00102		<0.00102	<0.00102	<0.00102	<0.00102
2/3/2020					<0.00102	<0.00102	<0.00102	<0.00102
2/4/2020	<0.00102		<0.00102					
2/5/2020		<0.00102						
8/3/2020					<0.00102	<0.00102	<0.00102	
8/4/2020			<0.00102	<0.00102				
8/5/2020	<0.00102	<0.00102						<0.00102
2/22/2021					0.000382 (J)	<0.00102	0.00035 (J)	<0.00102
3/1/2021	0.000423 (J)	<0.00102		<0.00102				
3/2/2021			0.000218 (J)					
7/12/2021					0.00049 (J)	0.00025 (J)	0.00031 (J)	0.0003 (J)
7/13/2021			0.00026 (J)	0.0003 (J)				
7/14/2021	0.0003 (J)	<0.00102						
1/25/2022					0.00043 (J)	0.00022 (J)	0.00051 (J)	0.00021 (J)
1/26/2022		0.00023 (J)	0.00024 (J)	<0.00102				
1/27/2022	0.00046 (J)							

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.0303		0.151	
10/3/2016						0.041		0.143	
10/26/2016						0.0505		0.154	
11/21/2016						0.0617		0.155	
1/17/2017						0.0793		0.16	
3/20/2017						0.0726			
3/21/2017								0.158	
4/17/2017						0.294 (o)		0.159	
5/30/2017						0.0832		0.159	
2/13/2018						0.124		0.19	
6/11/2018						0.138		0.166	
10/17/2018						0.138		0.154	
3/4/2019	0.0066								
3/5/2019							0.0059		0.0836
4/10/2019						0.151		0.241	
10/14/2019						0.102	0.00845	0.213	0.12
10/16/2019	0.00598								
11/26/2019		0.435							
2/3/2020						0.0843	0.0135		0.108
2/4/2020	0.00582	0.351		0.0442				0.217	
8/4/2020	0.0061			0.111		0.0862	0.0133		
8/5/2020		0.436	<0.0002		0.237			0.235	0.141
3/1/2021						0.119			
3/2/2021	0.00512	0.307		0.143					
3/3/2021			0.00028		0.202		0.0134	0.24	0.118
7/13/2021					0.193				
7/14/2021	0.00475	0.299	0.00018 (J)	0.116		0.0555		0.296	0.12
7/15/2021							0.0121		
1/25/2022		0.315							
1/26/2022	0.00479			0.228		0.0794	0.012		
1/27/2022			0.00022		0.178			0.406	0.124

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0487	0.232	<0.0002
4/26/2016					0.0343			
6/20/2016					0.0413	0.0767		<0.0002
6/22/2016							0.332	
8/8/2016					0.0513	0.103		
8/9/2016							0.311	<0.0002
8/24/2016	0.0201				0.0471	0.093	0.271	<0.0002
10/3/2016	0.0167				0.0525	0.0964		<0.0002
10/4/2016							0.148	
10/26/2016	0.0253				0.0527	0.0904	0.236	<0.0002
11/21/2016	0.0233				0.0569	0.0857	0.241	<0.0002
1/17/2017	0.0708				0.0768	0.0745		
1/18/2017							0.347	<0.0002
3/20/2017	0.00277 (J)							
3/22/2017					0.0535	0.0328	0.271	<0.0002
4/18/2017	<0.0002				0.0442	0.0242	0.00324 (J)	<0.0002
5/30/2017	<0.0002				0.0465			
5/31/2017						0.0441	0.225	
2/13/2018	0.00492 (J)				0.062	0.0179	0.00661 (J)	<0.0002
5/22/2018					0.0443	0.028		
5/23/2018								<0.0002
5/24/2018							0.158	
6/12/2018	<0.0002				0.0512	0.0366	0.291	<0.0002
10/17/2018	<0.0002				0.0751	0.0745	0.49	<0.0002
11/19/2018					0.0825	0.0225	0.386	<0.0002
3/5/2019			0.14					
4/10/2019	<0.0002				0.0445	0.0152	0.0144	<0.0002
5/14/2019					0.0485	0.0222	0.00536	<0.0002
10/8/2019					0.0778	0.0674	1.07 (o)	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			0.168		0.08	0.073	0.848 (o)	<0.0002
2/3/2020					0.0495	0.0193	0.0114	<0.0002
2/4/2020	<0.0002		0.159					
2/5/2020		<0.0002						
8/3/2020					0.0722	0.0589	0.64	
8/4/2020			0.178	0.00412 (J)				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					0.0657	0.0161	0.0515	<0.0002
3/1/2021	0.00546	<0.0002		0.000992				
3/2/2021			0.163					
7/12/2021					0.0556	0.0155	0.00567	<0.0002
7/13/2021			0.141	0.00077				
7/14/2021	0.00026	<0.0002						
1/25/2022					0.0654	0.0166	0.0051	<0.0002
1/26/2022		<0.0002	0.141	0.00054				
1/27/2022	0.00067							

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.389 (U)		0.741	
10/3/2016						0.683		0.648	
10/26/2016						0.242 (U)		0.632	
11/21/2016						0.764		1.57	
1/17/2017						0.191 (U)		0.493	
3/20/2017						-0.0158 (U)			
3/21/2017								0.604 (U)	
4/17/2017						0.307 (U)		0.252 (U)	
5/30/2017						0.724		0.925	
2/13/2018						0.633		0.382	
6/11/2018						0.773		0.796	
10/17/2018						0.668		0.922	
3/4/2019	0.135 (U)								
3/5/2019							0.932		0.364 (U)
4/10/2019						0.265 (U)		0.622	
10/14/2019						0.297 (U)	0.184 (U)	0.317 (U)	0.369 (U)
10/16/2019	0.189 (U)								
2/3/2020						0.28 (U)	0.408 (U)		0.758
2/4/2020	0.319 (U)	0.939		0.624				0.324 (U)	
8/4/2020	0.0315 (U)			-0.402 (U)		0.45 (U)	-0.00668 (U)		
8/5/2020		-0.306 (U)	-0.284 (U)		0.758 (U)			0.389 (U)	0.533 (U)
3/1/2021						0.57 (U)			
3/2/2021	0.308 (U)	2.18		0.686 (U)					
3/3/2021			0.388 (U)		0.185 (U)		1.11 (U)	0.836 (U)	0.325 (U)
7/13/2021					1.06 (U)				
7/14/2021	0.398 (U)	1.42	0.657 (U)	0.826 (U)		0.668 (U)		1.58	0.917 (U)
7/15/2021							0.362 (U)		
1/25/2022		1.22 (U)							
1/26/2022	0.506 (U)			0.354 (U)		0.335 (U)	0.546 (U)		
1/27/2022			0.361 (U)		0.247 (U)			0.791 (U)	0.624 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
8/24/2016	0.558 (U)				0.566 (U)	0.65	0.131 (U)	0.266 (U)
10/3/2016	0.565				0.537 (U)	0.845		0.59 (U)
10/4/2016							0.514 (U)	
10/26/2016	0.555 (U)				0.636	0.994	0.755	0.164 (U)
11/21/2016	0.987				0.807	0.537 (U)	0.7	0.296 (U)
1/17/2017	0.476 (U)				0.308 (U)	-0.0159 (U)		
1/18/2017							0.606	0.0267 (U)
3/20/2017	0.633 (U)							
3/22/2017					0.344 (U)	0.279 (U)	0.927	0.132 (U)
4/18/2017	0.248 (U)				0.934	0.32 (U)	0.334 (U)	-0.0439 (U)
5/30/2017	0.412 (U)				0.149 (U)			
5/31/2017						0.178 (U)	0.8	0.3 (U)
2/13/2018	1.08				0.774	0.804	0.649	0.69
5/22/2018					-0.091 (U)	0.0077 (U)		
5/23/2018								0.186 (U)
5/24/2018							0.448 (U)	
6/12/2018	0.446 (U)				1.18	-0.315 (U)	0.234 (U)	0.153 (U)
10/17/2018	1.05				0.553 (U)	0.574 (U)	0.852	0.313 (U)
11/19/2018					0.862	0.654	0.521	0.794
3/5/2019			0.852					
4/10/2019	0.128 (U)				0.342 (U)	0.329 (U)	0.198 (U)	0.515
5/14/2019								0.352 (U)
10/8/2019					1.47	0.493 (U)	0.833 (U)	
10/10/2019								1.02 (U)
10/14/2019	0.225 (U)							
10/16/2019			1.29		0.204 (U)	0.046 (U)	0.0279 (U)	0.356 (U)
2/3/2020					0.521 (U)	-0.0245 (U)	0.0246 (U)	0.254 (U)
2/4/2020	0.336 (U)		0.441 (U)					
2/5/2020		0.576						
8/3/2020					-0.127 (U)	0.888 (U)	0.765 (U)	
8/4/2020			-0.385 (U)	0.837 (U)				
8/5/2020	-0.115 (U)	1.85						0.565 (U)
2/22/2021					0.677 (U)	0.434 (U)	0.472 (U)	0 (U)
3/1/2021	0.902 (U)	1.49		0.686 (U)				
3/2/2021			0.87 (U)					
7/12/2021					0.476 (U)	0.155 (U)	0.114 (U)	0.301 (U)
7/13/2021			0.877 (U)	0.194 (U)				
7/14/2021	1.23 (U)	1.85						
1/25/2022					1.01 (U)	0.663 (U)	0.418 (U)	0.884 (U)
1/26/2022		0.155 (U)	1.06	0.53 (U)				
1/27/2022	0.28 (U)							

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.264 (J)		0.793	
10/3/2016						0.276 (J)		0.769	
10/26/2016						0.182 (J)		0.578	
11/21/2016						0.238 (J)		0.562	
1/17/2017						0.34		0.571	
3/20/2017						0.39			
3/21/2017								0.54	
4/17/2017						0.57		0.54	
5/30/2017						0.38		0.49	
8/24/2017						0.54		0.7	
2/13/2018						0.57		0.63	
6/11/2018						0.63		0.39	
10/17/2018						0.78		0.44	
3/4/2019	0.101								
3/5/2019							0.249		0.477
4/10/2019						0.738		<0.1	
10/14/2019						0.619	0.37	<0.1	0.449
10/16/2019	0.0875 (J)								
11/26/2019		<0.1							
2/3/2020						0.427	0.438		0.555
2/4/2020	0.0743 (J)	<0.1		0.115				<0.1	
8/4/2020	0.109			0.113		0.389	0.349		
8/5/2020		<0.1	0.217		0.082 (J)			<0.1	0.363
3/1/2021						0.449			
3/2/2021	0.0758 (J)	<0.1		0.167					
3/3/2021			0.243		<0.1		0.458	<0.1	0.262
7/13/2021					<0.1				
7/14/2021	0.0848 (J)	<0.1	0.335	0.196		0.556		<0.1	0.276
7/15/2021							0.493		
1/25/2022		<0.1							
1/26/2022	0.0809 (J)			0.208		0.447	0.516		
1/27/2022			0.329		<0.1			<0.1	0.373

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.149 (J)	0.243 (J)	0.372
4/26/2016					0.146 (J)			
6/20/2016					0.148 (J)	0.148 (J)		0.361
6/22/2016							0.269 (J)	
8/8/2016					0.137 (J)	0.134 (J)		
8/9/2016							0.363	0.326
8/24/2016	0.165 (J)				0.133 (J)	0.129 (J)	0.346	0.329
10/3/2016	0.114 (J)				0.103 (J)	0.086 (J)		0.287 (J)
10/4/2016							0.266 (J)	
10/26/2016	0.056 (J)				0.05 (J)	0.027 (J)	0.266 (J)	0.194 (J)
11/21/2016	0.059 (J)				0.047 (J)	0.027 (J)	0.244 (J)	0.192 (J)
1/17/2017	0.07 (J)				0.09 (J)	0.066 (J)		
1/18/2017							0.385	0.223 (J)
3/20/2017	0.18							
3/22/2017					0.12	0.13	0.41	0.32
4/18/2017	0.17				0.12	0.16	0.29	0.32
5/30/2017	0.16				0.13			
5/31/2017						0.13	0.37	
8/23/2017					0.16	0.16	0.55	0.38
8/24/2017	0.18							
2/13/2018	0.15				0.14	0.22	0.27	0.38
5/22/2018					0.16	0.17		
5/23/2018								0.38
5/24/2018							0.6	
6/12/2018	0.15				0.16	0.16	0.53	0.39
10/17/2018	0.16				0.18	0.16	0.63	0.39
11/19/2018					0.15	0.18	0.31	0.36
3/5/2019			0.239					
4/10/2019	0.156				0.102	0.262	0.273	0.384
5/14/2019					0.119	0.17	0.281	0.335
10/8/2019					0.0924 (J)	0.164	0.225	
10/10/2019								0.304
10/14/2019	0.118							
10/16/2019			0.101		0.0756 (J)	0.114	0.106	0.302
2/3/2020					0.0982 (J)	0.182	0.256	0.37
2/4/2020	0.132		0.205					
2/5/2020		0.162						
8/3/2020					<0.1	0.122	0.0766 (J)	
8/4/2020			0.127	0.135				
8/5/2020	0.119	0.256						0.359
2/22/2021					0.082 (J)	0.209	0.246	0.357
3/1/2021	0.106	0.346		0.12				
3/2/2021			0.094 (J)					
7/12/2021					0.125	0.196	0.287	0.35
7/13/2021			0.182	0.211				
7/14/2021	0.221	0.339						
1/25/2022					0.101	0.204	0.325	0.364
1/26/2022		0.306	0.117	0.155				
1/27/2022	0.179							

Time Series

Constituent: Lead (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		<0.0002	
10/3/2016						<0.0002		<0.0002	
10/26/2016						<0.0002		<0.0002	
11/21/2016						<0.0002		<0.0002	
1/17/2017						<0.0002		<0.0002	
3/20/2017						<0.0002			
3/21/2017								<0.0002	
4/17/2017						<0.0002		<0.0002	
5/30/2017						<0.0002		<0.0002	
2/13/2018						<0.0002		<0.0002	
6/11/2018						<0.0002		<0.0002	
10/17/2018						<0.0002		<0.0002	
3/4/2019	<0.0002								
3/5/2019							<0.0002		<0.0002
4/10/2019						<0.0002		<0.0002	
10/14/2019						<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019	<0.0002								
11/26/2019		0.00271 (J)							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	0.00334 (J)		<0.0002				<0.0002	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		0.00329 (J)	<0.0002		0.00122 (J)			<0.0002	<0.0002
3/1/2021						0.000157 (J)			
3/2/2021	0.000145 (J)	0.00478		<0.0002					
3/3/2021			<0.0002		0.000876		<0.0002	0.000609	<0.0002
7/13/2021					0.00096				
7/14/2021	0.00014 (J)	0.00557	<0.0002	<0.0002		0.00018 (J)		0.00079	<0.0002
7/15/2021							<0.0002		
1/25/2022		0.0052							
1/26/2022	0.00023			<0.0002		0.00014 (J)	<0.0002		
1/27/2022			<0.0002		0.00087			0.00103	7E-05 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	<0.0002	<0.0002
4/26/2016					<0.0002			
6/20/2016					<0.0002	<0.0002		<0.0002
6/22/2016							<0.0002	
8/8/2016					<0.0002	<0.0002		
8/9/2016							<0.0002	<0.0002
8/24/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				<0.0002	<0.0002		<0.0002
10/4/2016							<0.0002	
10/26/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/21/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002				<0.0002	<0.0002		
1/18/2017							<0.0002	<0.0002
3/20/2017	<0.0002							
3/22/2017					<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/30/2017	<0.0002				<0.0002			
5/31/2017						<0.0002	<0.0002	
2/13/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/22/2018					<0.0002	<0.0002		
5/23/2018								<0.0002
5/24/2018							<0.0002	
6/12/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/17/2018	<0.0002				<0.0002	<0.0002	0.00102 (J)	<0.0002
11/19/2018					<0.0002	<0.0002	0.00692 (o)	<0.0002
3/5/2019			<0.0002					
4/10/2019	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019					<0.0002	<0.0002	<0.0002	<0.0002
10/8/2019					<0.0002	<0.0002	<0.0002	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			<0.0002		<0.0002	<0.0002	0.00108 (J)	<0.0002
2/3/2020					<0.0002	<0.0002	<0.0002	<0.0002
2/4/2020	<0.0002		<0.0002					
2/5/2020		<0.0002						
8/3/2020					<0.0002	<0.0002	0.002 (J)	
8/4/2020			<0.0002	<0.0002				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					<0.0002	<0.0002	8.8E-05 (J)	<0.0002
3/1/2021	0.000145 (J)	<0.0002		<0.0002				
3/2/2021			0.000206					
7/12/2021					<0.0002	<0.0002	8E-05 (J)	<0.0002
7/13/2021			0.00016 (J)	<0.0002				
7/14/2021	<0.0002	<0.0002						
1/25/2022					<0.0002	<0.0002	<0.0002	<0.0002
1/26/2022		<0.0002	0.00013 (J)	<0.0002				
1/27/2022	0.00015 (J)							

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						0.362		0.291	
10/3/2016						0.371		0.287	
10/26/2016						0.416		0.298	
11/21/2016						0.401		0.294	
1/17/2017						0.497		0.27	
3/20/2017						0.533			
3/21/2017								0.258	
4/17/2017						0.47		0.274	
5/30/2017						0.479		0.285	
2/13/2018						0.508		0.274	
6/11/2018						0.425		0.266	
10/17/2018						0.494		0.266	
3/4/2019	<0.02								
3/5/2019							0.309		0.369
4/10/2019						0.425		0.282	
10/14/2019						0.459	0.38	0.262	0.317
10/16/2019	<0.02								
11/26/2019		0.449							
2/3/2020						0.474	0.46		0.332
2/4/2020	<0.02	0.394		0.0506				0.29	
8/4/2020	<0.02			0.0534		0.468	0.395		
8/5/2020		0.441	0.334		0.512			0.273	0.322
3/1/2021						0.353			
3/2/2021	<0.02	0.456		0.0439					
3/3/2021			0.411		0.54		0.455	0.313	0.345
7/13/2021					0.514				
7/14/2021	<0.02	0.454	0.374	0.0524		0.485		0.487	0.337
7/15/2021							0.441		
1/25/2022		0.397							
1/26/2022	<0.02			0.0301		0.31	0.347		
1/27/2022			0.303		0.43			0.671	0.305

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						0.0353 (J)	0.0964	0.0528
4/26/2016					0.0264 (J)			
6/20/2016					0.0246 (J)	0.0583		0.0554
6/22/2016							0.156	
8/8/2016					0.0229 (J)	0.0627		
8/9/2016							0.122	0.0452 (J)
8/24/2016	0.0683				0.0236 (J)	0.0651	0.138	0.0488 (J)
10/3/2016	0.0661				0.0229 (J)	0.0622		0.0476 (J)
10/4/2016							0.0966	
10/26/2016	0.0681				0.0227 (J)	0.0293 (J)	0.134	0.049 (J)
11/21/2016	0.0682				0.0236 (J)	0.0667	0.167	0.0477 (J)
1/17/2017	0.0516				0.0228 (J)	0.0636		
1/18/2017							0.237	0.045 (J)
3/20/2017	0.135							
3/22/2017					0.0238 (J)	0.0464 (J)	0.203	0.0493 (J)
4/18/2017	0.139				0.0242 (J)	0.0446 (J)	0.0764	0.0494 (J)
5/30/2017	0.141				0.0229 (J)			
5/31/2017						0.0496 (J)	0.218	
2/13/2018	0.163				0.0233 (J)	0.0615	0.0964	0.0446 (J)
5/22/2018					0.0263 (J)	0.0465 (J)		
5/23/2018								0.0513
5/24/2018							0.145	
6/12/2018	0.166				0.0251 (J)	0.0472 (J)	0.194	0.0511
10/17/2018	0.188				0.025 (J)	0.0633	0.384	0.0532
11/19/2018					0.0241	0.0584	0.323	0.0467
3/5/2019			0.169					
4/10/2019	0.195				0.0285	0.0574	0.0905	0.0504
5/14/2019					0.026 (J)	0.0445	0.0828	0.0485
10/8/2019					0.0268	0.0677	0.419	
10/10/2019								0.054
10/14/2019	0.209							
10/16/2019			0.184		0.0263	0.0661	0.337	0.052
2/3/2020					0.0292	0.0534	0.0825	0.0556
2/4/2020	0.188		0.203					
2/5/2020		0.327						
8/3/2020					0.0259	0.0611	0.27	
8/4/2020			0.166	0.364				
8/5/2020	0.206	0.275						0.0519
2/22/2021					0.0301	0.0625	0.126	0.0558
3/1/2021	0.149	0.292		0.424				
3/2/2021			0.178					
7/12/2021					0.0266	0.0495	0.0808	0.0533
7/13/2021			0.166	0.408				
7/14/2021	0.213	0.286						
1/25/2022					0.0239	0.051	0.077	0.0433
1/26/2022		0.233	0.115	0.312				
1/27/2022	0.185							

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0005		<0.0005	
10/3/2016						<0.0005		<0.0005	
10/26/2016						<0.0005		<0.0005	
11/21/2016						<0.0005		<0.0005	
1/17/2017						<0.0005		<0.0005	
3/20/2017						<0.0005			
3/21/2017								<0.0005	
4/17/2017						<0.0005		<0.0005	
5/30/2017						<0.0005		<0.0005	
2/13/2018						<0.0005		<0.0005	
6/11/2018						<0.0005		<0.0005	
10/17/2018						<0.0005		<0.0005	
3/4/2019	<0.0005								
3/5/2019							<0.0005		<0.0005
4/10/2019						<0.0005		<0.0005	
10/14/2019						<0.0005	<0.0005	<0.0005	<0.0005
10/16/2019	<0.0005								
11/26/2019		<0.0005							
2/3/2020						<0.0005	<0.0005		<0.0005
2/4/2020	<0.0005	<0.0005		<0.0005				<0.0005	
8/4/2020	<0.0005			<0.0005		<0.0005	<0.0005		
8/5/2020		<0.0005	<0.0005		<0.0005			<0.0005	<0.0005
3/1/2021						<0.0005			
3/2/2021	<0.0005	<0.0005		<0.0005					
3/3/2021			<0.0005		<0.0005		<0.0005	<0.0005	<0.0005
7/13/2021					<0.0005				
7/14/2021	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005		<0.0005	<0.0005
7/15/2021							<0.0005		
1/25/2022		<0.0005							
1/26/2022	<0.0005			<0.0005		<0.0005	<0.0005		
1/27/2022			<0.0005		<0.0005			<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0005	<0.0005	<0.0005
4/26/2016					<0.0005			
6/20/2016					<0.0005	<0.0005		<0.0005
6/22/2016							<0.0005	
8/8/2016					<0.0005	<0.0005		
8/9/2016							<0.0005	<0.0005
8/24/2016	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
10/3/2016	<0.0005				<0.0005	<0.0005		<0.0005
10/4/2016							<0.0005	
10/26/2016	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
11/21/2016	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
1/17/2017	<0.0005				<0.0005	<0.0005		
1/18/2017							<0.0005	<0.0005
3/20/2017	<0.0005							
3/22/2017					<0.0005	<0.0005	<0.0005	<0.0005
4/18/2017	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
5/30/2017	<0.0005				<0.0005			
5/31/2017						<0.0005	<0.0005	
2/13/2018	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
5/22/2018					<0.0005	<0.0005		
5/23/2018								<0.0005
5/24/2018							<0.0005	
6/12/2018	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
10/17/2018	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
11/19/2018					<0.0005	<0.0005	<0.0005	<0.0005
3/5/2019			<0.0005					
4/10/2019	<0.0005				<0.0005	<0.0005	<0.0005	<0.0005
5/14/2019					<0.0005	<0.0005	<0.0005	<0.0005
10/8/2019					<0.0005	<0.0005	<0.0005	
10/10/2019								<0.0005
10/14/2019	<0.0005							
10/16/2019			<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
2/3/2020					<0.0005	<0.0005	<0.0005	<0.0005
2/4/2020	<0.0005		<0.0005					
2/5/2020		<0.0005						
8/3/2020					<0.0005	<0.0005	<0.0005	
8/4/2020			<0.0005	<0.0005				
8/5/2020	<0.0005	<0.0005						<0.0005
2/22/2021					<0.0005	<0.0005	<0.0005	<0.0005
3/1/2021	<0.0005	<0.0005		<0.0005				
3/2/2021			<0.0005					
7/12/2021					<0.0005	<0.0005	<0.0005	<0.0005
7/13/2021			<0.0005	<0.0005				
7/14/2021	<0.0005	<0.0005						
1/25/2022					<0.0005	<0.0005	<0.0005	<0.0005
1/26/2022		<0.0005	<0.0005	<0.0005				
1/27/2022	<0.0005							

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		<0.0002	
10/3/2016						<0.0002		<0.0002	
10/26/2016						<0.0002		<0.0002	
11/21/2016						<0.0002		<0.0002	
1/17/2017						<0.0002		<0.0002	
3/20/2017						<0.0002			
3/21/2017								<0.0002	
4/17/2017						<0.0002		<0.0002	
5/30/2017						<0.0002		<0.0002	
2/13/2018						<0.0002		<0.0002	
6/11/2018						<0.0002		<0.0002	
10/17/2018						<0.0002		<0.0002	
3/4/2019	<0.0002								
3/5/2019							0.00347 (J)		<0.0002
4/10/2019						<0.0002		<0.0002	
10/14/2019						<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019	<0.0002								
11/26/2019		<0.0002							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	<0.0002		<0.0002				<0.0002	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		<0.0002	0.00247 (J)		<0.0002			<0.0002	<0.0002
3/1/2021						0.00022			
3/2/2021	<0.0002	<0.0002		0.00138					
3/3/2021			0.00123		7.06E-05 (J)		7.93E-05 (J)	<0.0002	<0.0002
7/13/2021					<0.0002				
7/14/2021	<0.0002	<0.0002	0.00203	0.0005		0.00026		<0.0002	<0.0002
7/15/2021							9E-05 (J)		
1/25/2022		<0.0002							
1/26/2022	0.00011 (J)			0.00126		0.00022	0.00012 (J)		
1/27/2022			0.00268		9E-05 (J)			<0.0002	9E-05 (J)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	<0.0002	<0.0002
4/26/2016					<0.0002			
6/20/2016					<0.0002	<0.0002		<0.0002
6/22/2016							<0.0002	
8/8/2016					<0.0002	<0.0002		
8/9/2016							<0.0002	<0.0002
8/24/2016	0.0031 (J)				<0.0002	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				<0.0002	<0.0002		<0.0002
10/4/2016							<0.0002	
10/26/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/21/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002				<0.0002	<0.0002		
1/18/2017							<0.0002	<0.0002
3/20/2017	<0.0002							
3/22/2017					<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/30/2017	<0.0002				<0.0002			
5/31/2017						<0.0002	<0.0002	
2/13/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/22/2018					<0.0002	<0.0002		
5/23/2018								<0.0002
5/24/2018							<0.0002	
6/12/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/17/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/19/2018					<0.0002	<0.0002	<0.0002	<0.0002
3/5/2019			<0.0002					
4/10/2019	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019					<0.0002	<0.0002	<0.0002	<0.0002
10/8/2019					<0.0002	<0.0002	<0.0002	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
2/3/2020					<0.0002	<0.0002	<0.0002	<0.0002
2/4/2020	<0.0002		<0.0002					
2/5/2020		<0.0002						
8/3/2020					<0.0002	<0.0002	<0.0002	
8/4/2020			<0.0002	0.00423 (J)				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					<0.0002	<0.0002	<0.0002	0.000131 (J)
3/1/2021	0.00277	0.000654		0.000532				
3/2/2021			<0.0002					
7/12/2021					<0.0002	<0.0002	<0.0002	0.00014 (J)
7/13/2021			<0.0002	0.00056				
7/14/2021	0.00015 (J)	0.00026						
1/25/2022					<0.0002	<0.0002	8E-05 (J)	0.00011 (J)
1/26/2022		0.00078	<0.0002	0.0003				
1/27/2022	0.00012 (J)							

Time Series

Constituent: pH (pH) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						6.28		3.83 (E)	
10/3/2016						6.28		3.82 (E)	
10/26/2016						6.19		3.81 (E)	
11/21/2016						6.2		3.81	
1/17/2017						6.13		3.78	
3/20/2017						6.17			
3/21/2017								3.76	
4/17/2017						5.6		3.76	
5/30/2017						6.07		3.76	
8/24/2017						5.99		3.7	
2/13/2018						5.88		3.73	
6/11/2018						5.91		3.8	
10/17/2018						5.88		3.81	
3/4/2019	6.04								
3/5/2019							6.7		6.19
4/10/2019						5.83		3.83	
10/14/2019						6.04	6.39	3.91	5.89
10/16/2019	6.07								
2/3/2020						5.98	5.88		5.84
2/4/2020	6.02	4.57		6				3.83	
8/4/2020	5.74			5.89		6.09	5.9		
8/5/2020		4.13	6.15		3.83			3.86	5.81
3/1/2021						5.82			
3/2/2021	5.89	4.11		5.85					
3/3/2021			6.11		4.02		5.76	3.76	5.75
7/13/2021					3.8				
7/14/2021	5.72	4.04	6.21	5.55		5.93		3.74	5.75
7/15/2021							5.92		
1/25/2022		4.11							
1/26/2022	5.95			6.08		6.52	6.61		
1/27/2022			6.19		4.1			3.73	6.17

Time Series

Constituent: pH (pH) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						5.94	5.56	6.22
4/26/2016					5.2			
6/20/2016					5.18	5.96		6.21
6/22/2016							5.57	
8/8/2016					5.12	5.88		
8/9/2016							5.67	6.11
8/24/2016	6.78						5.63	6.11
10/3/2016	6.71				5.21	5.91		6.13
10/4/2016							5.69	
10/26/2016	6.65				5.2	5.84	5.56	6.12
11/21/2016	6.7				5.19	5.82	5.42	6.09
1/17/2017	6.25				5.17	5.87		
1/18/2017							5.11	6.09
3/20/2017	7.04							
3/22/2017					5.2	6.01	4.52	6.15
4/18/2017	6.99				5.2	6.02	5.84	6.19
5/30/2017	6.98				5.14			
5/31/2017						5.85	4.56	
8/23/2017					5.12	5.89	4.77	6.12
8/24/2017	6.89							
2/13/2018	6.85				5.18	6.21	5.67	6.22
5/22/2018					5.2	6.04		
5/23/2018								6.21
5/24/2018							5.19	
6/12/2018	6.83				5.15	5.95	4.79	6.16
10/17/2018	6.81				5.12	5.9	4.75	6.12
11/19/2018					5.09	6.03	3.77 (o)	6.16
3/5/2019			5.88					
4/10/2019	6.71				5.11	6.1	5.54	6.14
5/14/2019					5.19	6.07	5.71	6.23
10/8/2019					5.12	5.96	4.98	
10/10/2019								6.15
10/14/2019	6.88							
10/16/2019			5.43		5.16	5.98	4.51	6.19
2/3/2020					5	5.95	5.54	6.14
2/4/2020	6.85		5.34					
2/5/2020		7.48						
8/3/2020					5.08	5.95	5.06	
8/4/2020			5.33	6.88				
8/5/2020	6.76	7.58						6.15
2/22/2021					5.06	6.1	5.59	6.19
3/1/2021	6.48	7.67		6.84				
3/2/2021			5.29					
7/12/2021					5.13	6.16	5.86	6.06
7/13/2021			5.13	6.92				
7/14/2021	6.88	7.97						
1/25/2022					5.11	6.22	5.9	6.3
1/26/2022		8.18	5.35	6.89				
1/27/2022	6.85							

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.00102		0.00234 (J)	
10/3/2016						<0.00102		0.00739 (J)	
10/26/2016						<0.00102		0.00266 (J)	
11/21/2016						<0.00102		0.00212 (J)	
1/17/2017						<0.00102		0.00263 (J)	
3/20/2017						<0.00102			
3/21/2017								0.00588 (J)	
4/17/2017						0.00521 (J)		0.00579 (J)	
5/30/2017						<0.00102		0.00471 (J)	
2/13/2018						0.00267 (J)		0.00498 (J)	
6/11/2018						0.00236 (J)		0.00388 (J)	
10/17/2018						<0.00102		<0.00102	
3/4/2019	<0.00102								
3/5/2019							<0.00102		<0.00102
4/10/2019						0.00234 (J)		0.00322 (J)	
10/14/2019						<0.00102	<0.00102	<0.00102	<0.00102
10/16/2019	<0.00102								
11/26/2019		0.00614 (J)							
2/3/2020						<0.00102	<0.00102		<0.00102
2/4/2020	<0.00102	<0.00102		<0.00102				<0.00102	
8/4/2020	<0.00102			<0.00102		<0.00102	<0.00102		
8/5/2020		0.00417 (J)	<0.00102		0.00571 (J)			0.00298 (J)	<0.00102
3/1/2021						0.00141			
3/2/2021	<0.00102	0.00463		<0.00102					
3/3/2021			<0.00102		0.00554		<0.00102	0.00294	0.000749 (J)
7/13/2021					0.00607				
7/14/2021	<0.00102	0.00441	<0.00102	<0.00102		0.00151		0.00563	0.00095 (J)
7/15/2021							<0.00102		
1/25/2022		0.00311							
1/26/2022	<0.00102			0.00069 (J)		0.00117	<0.00102		
1/27/2022			<0.00102		0.00401			0.00817	0.00101 (J)

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.00102	<0.00102	<0.00102
4/26/2016					0.00261 (J)			
6/20/2016					0.00242 (J)	<0.00102		<0.00102
6/22/2016							<0.00102	
8/8/2016					0.00253 (J)	<0.00102		
8/9/2016							<0.00102	<0.00102
8/24/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
10/3/2016	<0.00102				0.00211 (J)	<0.00102		<0.00102
10/4/2016							<0.00102	
10/26/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/21/2016	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
1/17/2017	<0.00102				<0.00102	<0.00102		
1/18/2017							<0.00102	<0.00102
3/20/2017	<0.00102							
3/22/2017					0.0022 (J)	<0.00102	0.0141	<0.00102
4/18/2017	<0.00102				0.0027 (J)	<0.00102	0.0158	<0.00102
5/30/2017	<0.00102				0.00316 (J)			
5/31/2017						<0.00102	0.00632 (J)	
2/13/2018	<0.00102				0.00211 (J)	<0.00102	0.0209	0.00403 (J)
5/22/2018					0.00372 (J)	<0.00102		
5/23/2018								<0.00102
5/24/2018							0.00918 (J)	
6/12/2018	<0.00102				0.00409 (J)	<0.00102	0.00836 (J)	<0.00102
10/17/2018	<0.00102				<0.00102	<0.00102	<0.00102	<0.00102
11/19/2018					<0.00102	<0.00102	0.00439 (J)	0.00436 (J)
3/5/2019			<0.00102					
4/10/2019	<0.00102				0.00471 (J)	0.00322 (J)	0.0113	<0.00102
5/14/2019					0.00316 (J)	<0.00102	0.0119	0.00201 (J)
10/8/2019					<0.00102	<0.00102	0.00256 (J)	
10/10/2019								<0.00102
10/14/2019	<0.00102							
10/16/2019			<0.00102		<0.00102	<0.00102	0.00286 (J)	<0.00102
2/3/2020					0.00272 (J)	<0.00102	0.012	0.00212 (J)
2/4/2020	<0.00102		<0.00102					
2/5/2020		<0.00102						
8/3/2020					0.00278 (J)	<0.00102	0.0146	
8/4/2020			<0.00102	<0.00102				
8/5/2020	<0.00102	<0.00102						0.00232 (J)
2/22/2021					0.00241	<0.00102	0.0181	0.00222
3/1/2021	<0.00102	<0.00102		<0.00102				
3/2/2021			0.00138					
7/12/2021					0.0028	<0.00102	0.0133	0.00155
7/13/2021			0.00141	<0.00102				
7/14/2021	<0.00102	<0.00102						
1/25/2022					0.00216	<0.00102	0.0154	0.00224
1/26/2022		<0.00102	0.00129	<0.00102				
1/27/2022	<0.00102							

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						2910		567	
10/3/2016						2980		596	
10/26/2016						2790		585	
11/21/2016						2880		593	
1/17/2017						2950		637	
3/20/2017						2800			
3/21/2017								530	
4/17/2017						2400		530	
5/30/2017						2900		530	
8/24/2017						2900		530	
6/11/2018						2900		540	
10/17/2018						2800		520	
3/4/2019	785								
3/5/2019							1170		871
4/10/2019						2980		616	
10/14/2019						3110	1710	641	818
10/16/2019	750								
11/26/2019		997							
2/3/2020						2840	1970		808
2/4/2020	725	978		720				571	
8/4/2020	694			773		2820	1860		
8/5/2020		811	1830		796			519	761
3/1/2021						2320			
3/2/2021	835	890		861					
3/3/2021			1930		803		1930	609	746
7/13/2021					787				
7/14/2021	747	878	2000	857		2880		752	797
7/15/2021							1960		
1/25/2022		903							
1/26/2022	745			883		2620	2010		
1/27/2022			1990		784			1130	825

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						745	1890	2260
4/26/2016					1490			
6/20/2016					1420	964		2500
6/22/2016							2100	
8/8/2016					1460	1100		
8/9/2016							2050	2750
8/24/2016	1250				1450	1130	2190	2770
10/3/2016	1270				1460	1140		3060
10/4/2016							1950	
10/26/2016	1240				1330	1060	1980	2650
11/21/2016	1210				1420	1100	2060	2720
1/17/2017	1150				1350	1160		
1/18/2017							2620	2650
3/20/2017	1400							
3/22/2017					1500	900	3200	2700
4/18/2017	1300				1300	870	2500	2400
5/30/2017	1500				1400			
5/31/2017						1100	2800	
8/23/2017					1500	920	2600	2700
8/24/2017	1800							
5/22/2018					2100 (o)	1200		
5/23/2018								2400
5/24/2018							2700	
6/12/2018	1800				1500	860	2500	2600
10/17/2018	1600				1400	970	2700	2600
11/19/2018					1300	1000	3000	2400
3/5/2019			2010					
4/10/2019	2150				1700	889	2460	2090
5/14/2019					1560	948	2460	2240
10/8/2019					1540	1230	2950	
10/10/2019								2690
10/14/2019	2090							
10/16/2019			2020		1680	1170	2820	3050
2/3/2020					1510	803	2290	1920
2/4/2020	1570		1710					
2/5/2020		223						
8/3/2020					1370	907	2330	
8/4/2020			1790	1700				
8/5/2020	1880	243						1930
2/22/2021					1400	864	3040	2040
3/1/2021	1450	183		1680				
3/2/2021			1750					
7/12/2021					1560	763	2380	1930
7/13/2021			1750	1820				
7/14/2021	1700	196						
1/25/2022					1430	842	2550	1930
1/26/2022		199	1660	1820				
1/27/2022	2000							

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						<0.0002		<0.0002	
10/3/2016						<0.0002		<0.0002	
10/26/2016						<0.0002		<0.0002	
11/21/2016						<0.0002		<0.0002	
1/17/2017						<0.0002		<0.0002	
3/20/2017						<0.0002			
3/21/2017								<0.0002	
4/17/2017						<0.0002		<0.0002	
5/30/2017						<0.0002		<0.0002	
2/13/2018						<0.0002		<0.0002	
6/11/2018						<0.0002		<0.0002	
10/17/2018						<0.0002		<0.0002	
3/4/2019	<0.0002								
3/5/2019							<0.0002		<0.0002
4/10/2019						<0.0002		<0.0002	
10/14/2019						<0.0002	<0.0002	<0.0002	<0.0002
10/16/2019	<0.0002								
11/26/2019		0.000375 (J)							
2/3/2020						<0.0002	<0.0002		<0.0002
2/4/2020	<0.0002	0.000491 (J)		<0.0002				<0.0002	
8/4/2020	<0.0002			<0.0002		<0.0002	<0.0002		
8/5/2020		0.000297 (J)	<0.0002		<0.0002			0.000205 (J)	<0.0002
3/1/2021						<0.0002			
3/2/2021	<0.0002	0.000371		<0.0002					
3/3/2021			<0.0002		7.98E-05 (J)		<0.0002	0.000178 (J)	<0.0002
7/13/2021					<0.0002				
7/14/2021	<0.0002	0.00034	<0.0002	<0.0002		<0.0002		9E-05 (J)	<0.0002
7/15/2021							<0.0002		
1/25/2022		0.00032							
1/26/2022	<0.0002			<0.0002		<0.0002	<0.0002		
1/27/2022			<0.0002		7E-05 (J)			0.00022	<0.0002

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						<0.0002	0.000205 (J)	<0.0002
4/26/2016					<0.0002			
6/20/2016					<0.0002	<0.0002		<0.0002
6/22/2016							<0.0002	
8/8/2016					<0.0002	<0.0002		
8/9/2016							<0.0002	<0.0002
8/24/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/3/2016	<0.0002				<0.0002	<0.0002		<0.0002
10/4/2016							<0.0002	
10/26/2016	<0.0002				<0.0002	<0.0002	0.000209 (J)	<0.0002
11/21/2016	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
1/17/2017	<0.0002				<0.0002	<0.0002		
1/18/2017							<0.0002	<0.0002
3/20/2017	<0.0002							
3/22/2017					<0.0002	<0.0002	<0.0002	<0.0002
4/18/2017	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/30/2017	<0.0002				<0.0002			
5/31/2017						<0.0002	<0.0002	
2/13/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/22/2018					<0.0002	<0.0002		
5/23/2018								<0.0002
5/24/2018							<0.0002	
6/12/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
10/17/2018	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
11/19/2018					<0.0002	<0.0002	0.000226 (J)	<0.0002
3/5/2019			0.00021 (J)					
4/10/2019	<0.0002				<0.0002	<0.0002	<0.0002	<0.0002
5/14/2019					<0.0002	<0.0002	<0.0002	<0.0002
10/8/2019					<0.0002	<0.0002	<0.0002	
10/10/2019								<0.0002
10/14/2019	<0.0002							
10/16/2019			0.000262 (J)		<0.0002	<0.0002	<0.0002	<0.0002
2/3/2020					<0.0002	<0.0002	<0.0002	<0.0002
2/4/2020	<0.0002		0.000233 (J)					
2/5/2020		<0.0002						
8/3/2020					<0.0002	<0.0002	<0.0002	
8/4/2020			0.000265 (J)	<0.0002				
8/5/2020	<0.0002	<0.0002						<0.0002
2/22/2021					<0.0002	<0.0002	<0.0002	<0.0002
3/1/2021	<0.0002	<0.0002		<0.0002				
3/2/2021			0.000221					
7/12/2021					<0.0002	<0.0002	<0.0002	<0.0002
7/13/2021			0.00013 (J)	<0.0002				
7/14/2021	<0.0002	<0.0002						
1/25/2022					<0.0002	<0.0002	<0.0002	<0.0002
1/26/2022		<0.0002	0.00022	<0.0002				
1/27/2022	<0.0002							

Time Series

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-11H	GS-GSA-MW-12H	GS-GSA-MW-12V	GS-GSA-MW-13H	GS-GSA-MW-14H	GS-GSA-MW-3	GS-GSA-MW-3V	GS-GSA-MW-4	GS-GSA-MW-4V
8/24/2016						5020		992	
10/3/2016						4880		988	
10/26/2016						5020		1030	
11/21/2016						5090		1020	
1/17/2017						4330		988	
3/20/2017						2690			
3/21/2017								990	
4/17/2017						4780		884	
5/30/2017						5170		1060	
8/24/2017						5140		1060	
6/11/2018						4960		944	
10/17/2018						4910		928	
3/4/2019	1150								
3/5/2019							2170		1410
4/10/2019						5090		1000	
10/14/2019						5110	3200	967	1340
10/16/2019	1150								
11/26/2019		1580							
2/3/2020						4920	3660		1290
2/4/2020	1200	1580		1200				978	
8/4/2020	1230			1350		5110	3530		
8/5/2020		1380	3330		1280			938	1330
3/1/2021						4390			
3/2/2021	1190	1390		1450					
3/3/2021			3450		1260		3640	1040	1320
7/13/2021					1180				
7/14/2021	1190	1330	3360	1300		4920		1300	1340
7/15/2021							3430		
1/25/2022		1320							
1/26/2022	1140			1360		4260	3150		
1/27/2022			3170		1130			1840	1330

Time Series

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:05 PM View: Constituents View

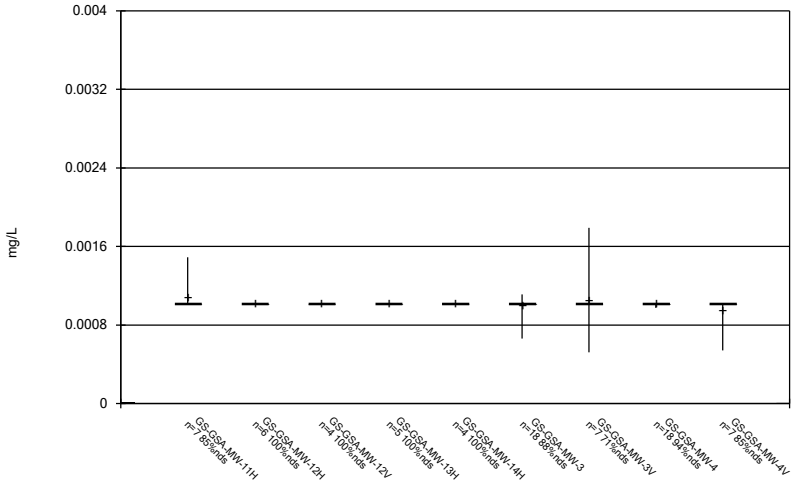
Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8V	GS-GSA-MW-9H	GS-GSA-MW-9V	MW-1 (bg)	MW-2 (bg)	MW-3 (bg)	MW-4 (bg)
4/25/2016						1260	2720	3300
4/26/2016					2080			
6/20/2016					2060	1620		3870
6/22/2016							3250	
8/8/2016					2070	1740		
8/9/2016							3050	4140
8/24/2016	2280				2040	1720	3080	4190
10/3/2016	2370				2110	1800		4190
10/4/2016							2900	
10/26/2016	2350				2000	1800	2940	4400
11/21/2016	2530				2070	1740	3090	4230
1/17/2017	2380				1930	1960		
1/18/2017							4020	4120
3/20/2017	2630							
3/22/2017					2060	1510	4180	3980
4/18/2017	2700				2140	1580	4440	3880
5/30/2017	2980				2240			
5/31/2017						1730	3970	
8/23/2017					2160	1550	4050	3990
8/24/2017	3390							
5/22/2018					2380	1500		
5/23/2018								3740
5/24/2018							3680	
6/12/2018	3510				2400	1550	3820	4080
10/17/2018	3550				2220	1740	4730	4250
11/19/2018					2360	1990	4710	3920
3/5/2019			3240					
4/10/2019	3580				2630	1250	3680	3280
5/14/2019					2340	1480	3580	3130 (D)
10/8/2019					2330	1840	4720	
10/10/2019								4000
10/14/2019	3730							
10/16/2019			3080		3650 (o)	1830	4210	4060
2/3/2020					2380	1440	3530	3240
2/4/2020	3190		3110					
2/5/2020		1100						
8/3/2020					2200	1650	3760	
8/4/2020			2920	3080				
8/5/2020	3610	1100						3200
2/22/2021					2230	1620	4670	3190
3/1/2021	2870	1060		3140				
3/2/2021			2860					
7/12/2021					2210	1390	3510	3000
7/13/2021			2640	2870				
7/14/2021	3150	1060						
1/25/2022					2150	1500	3950	3180
1/26/2022		1050	2490	2890				
1/27/2022	3290							

FIGURE B.

Sanitas™ v.9.6.33 . UG

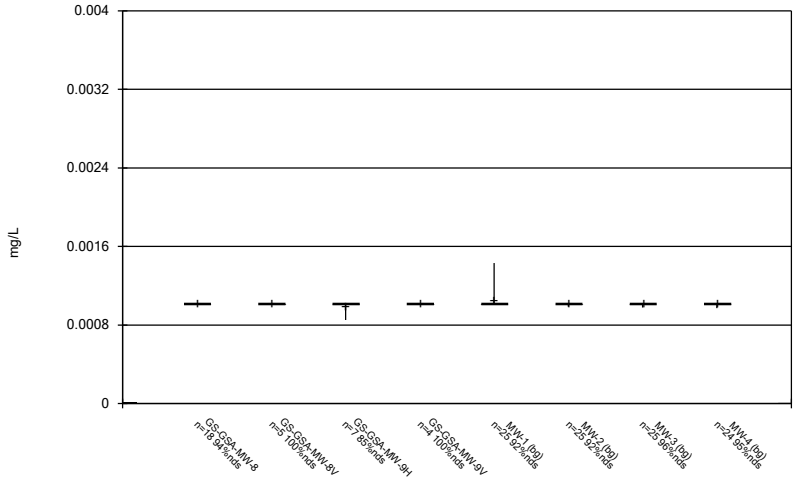
Box & Whiskers Plot



Constituent: Antimony Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

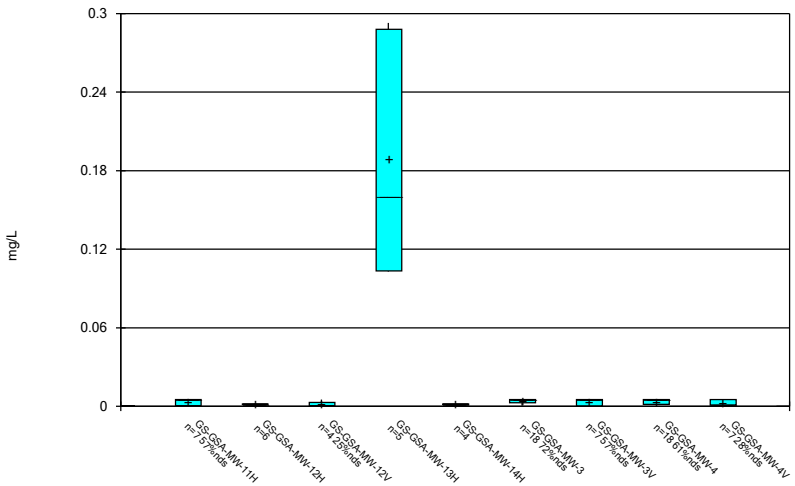
Box & Whiskers Plot



Constituent: Antimony Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

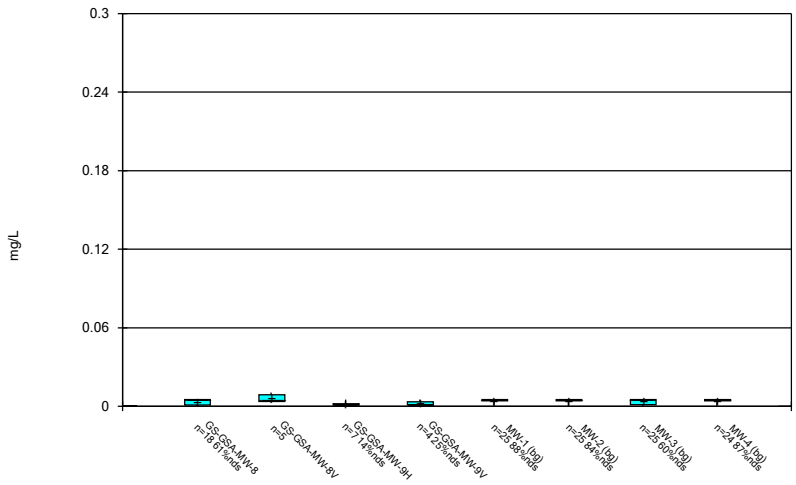
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

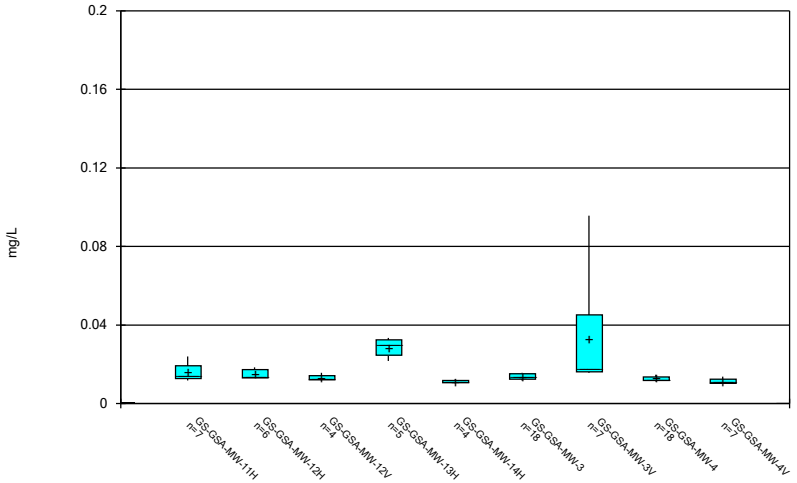
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

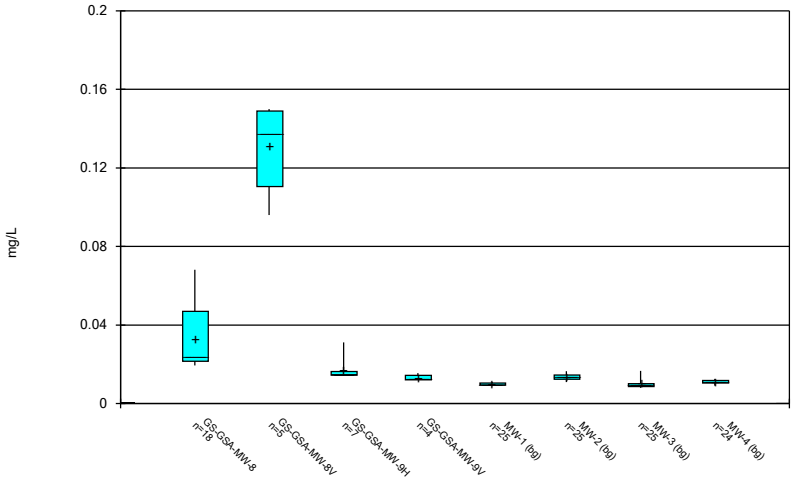
Box & Whiskers Plot



Constituent: Barium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

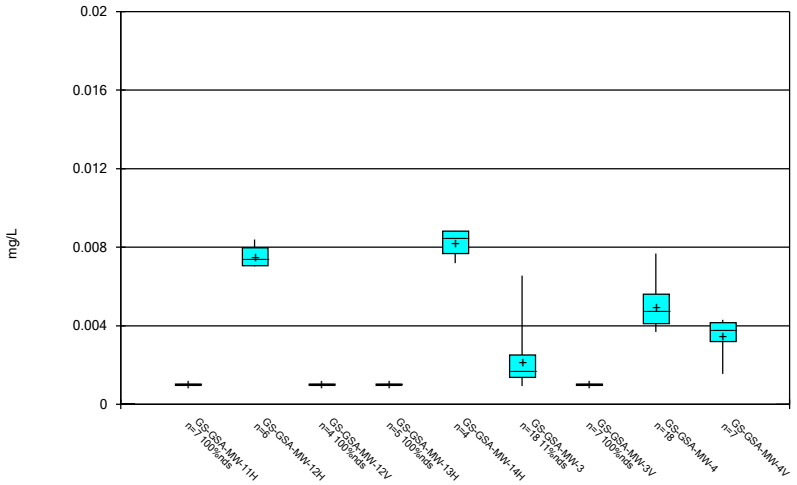
Box & Whiskers Plot



Constituent: Barium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

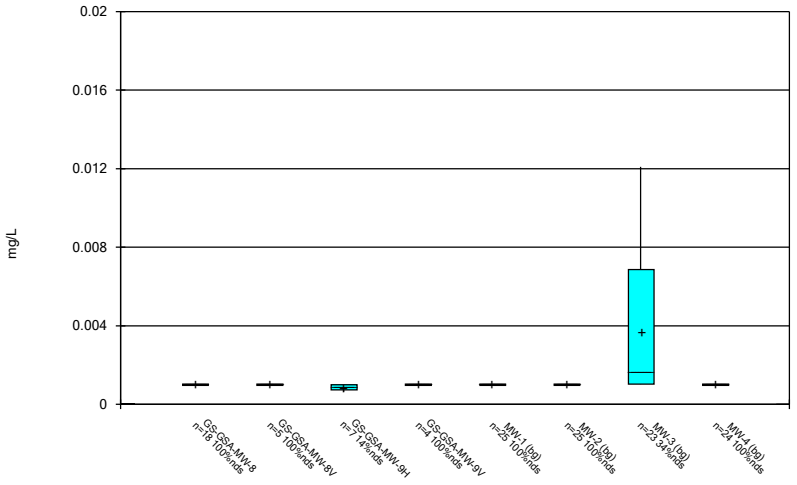
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

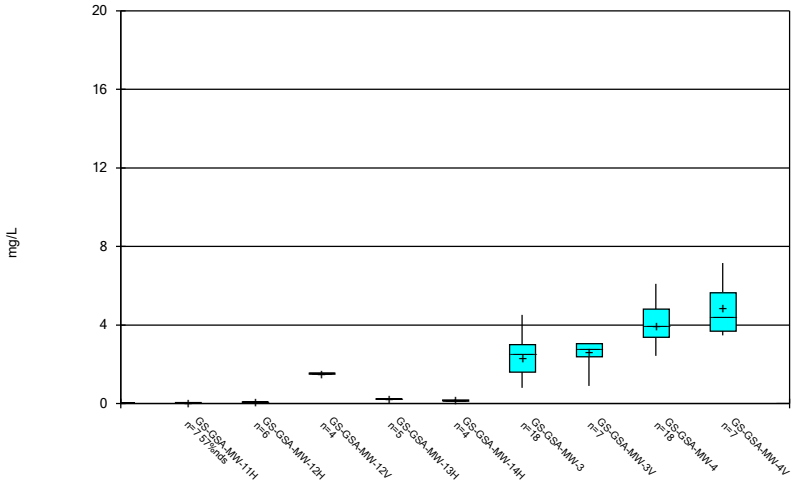
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

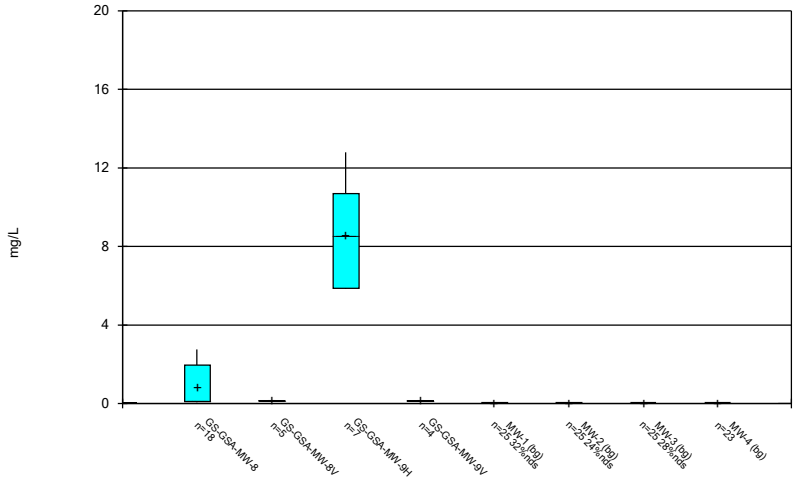
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

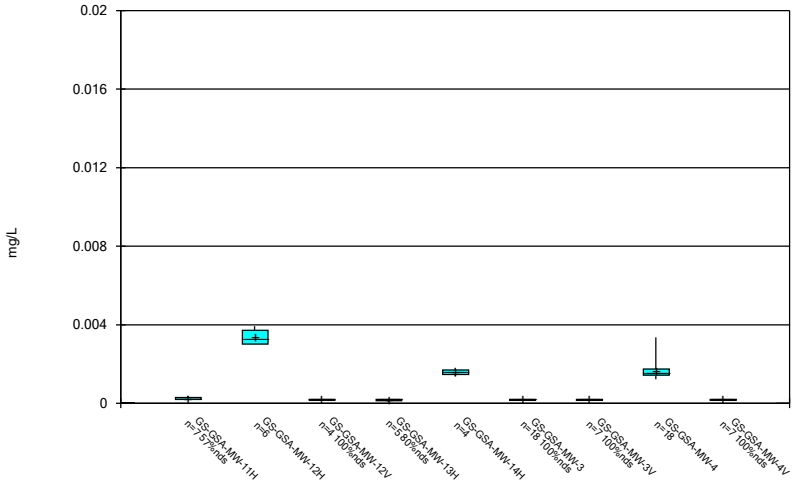
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/11/2022 6:05 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

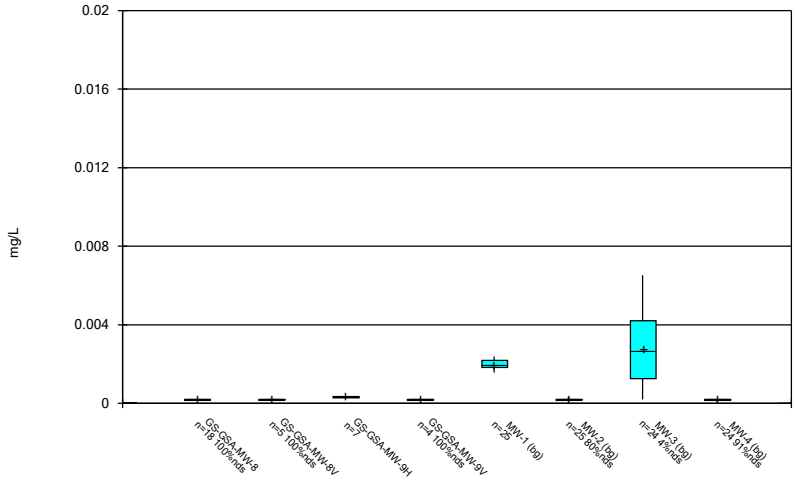
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

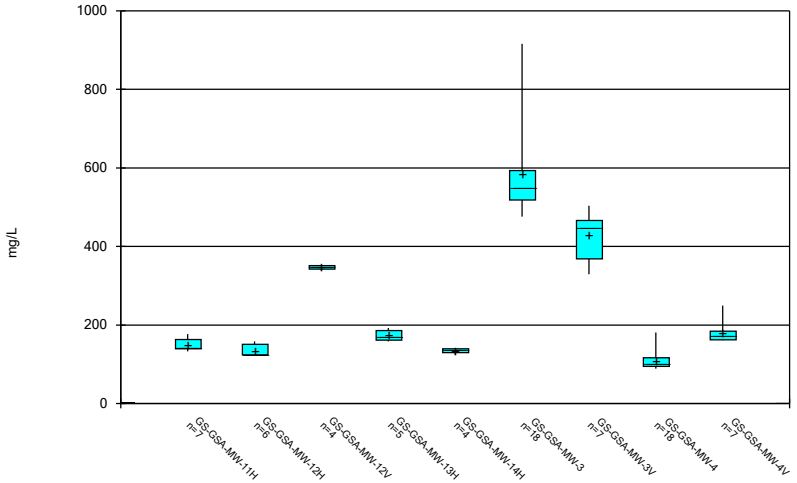
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

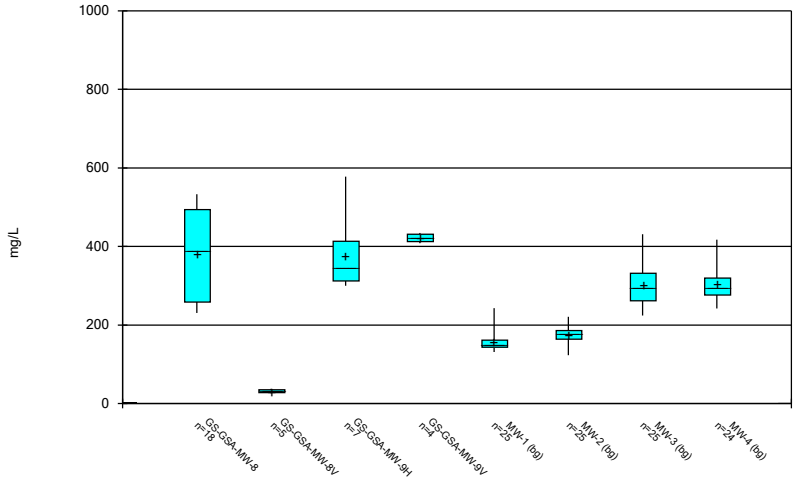
Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

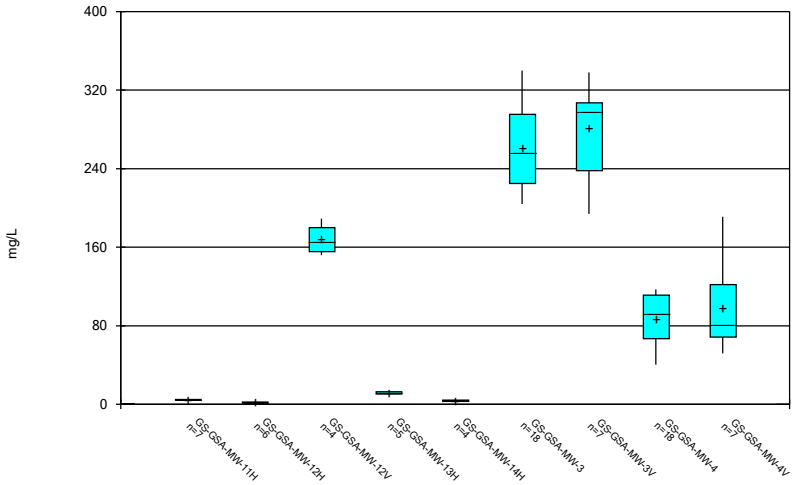
Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

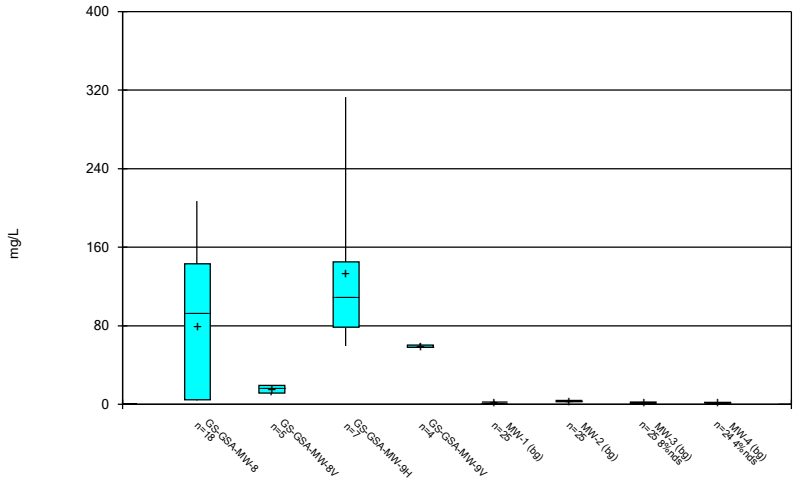
Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

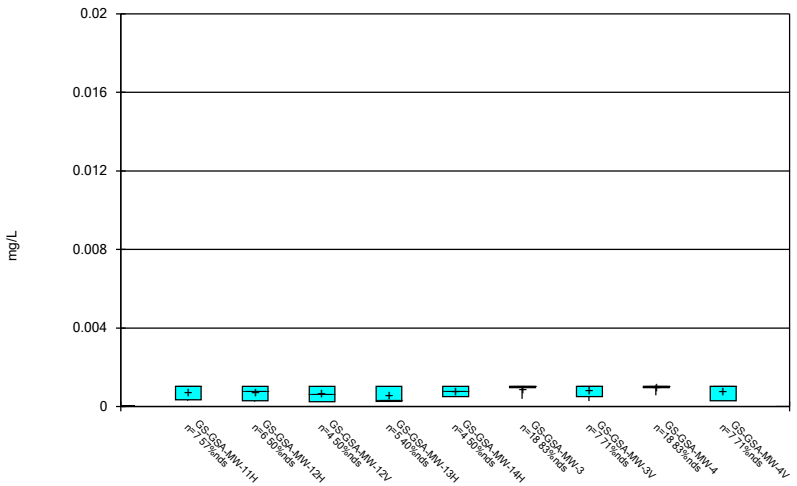
Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

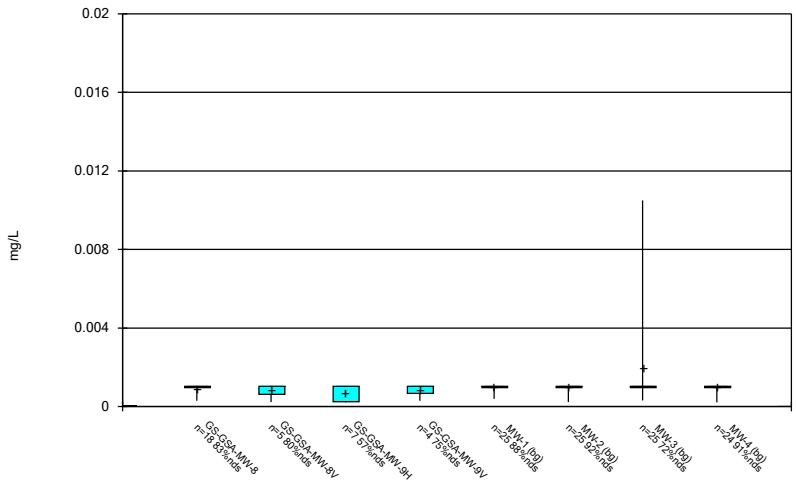
Box & Whiskers Plot



Constituent: Chromium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

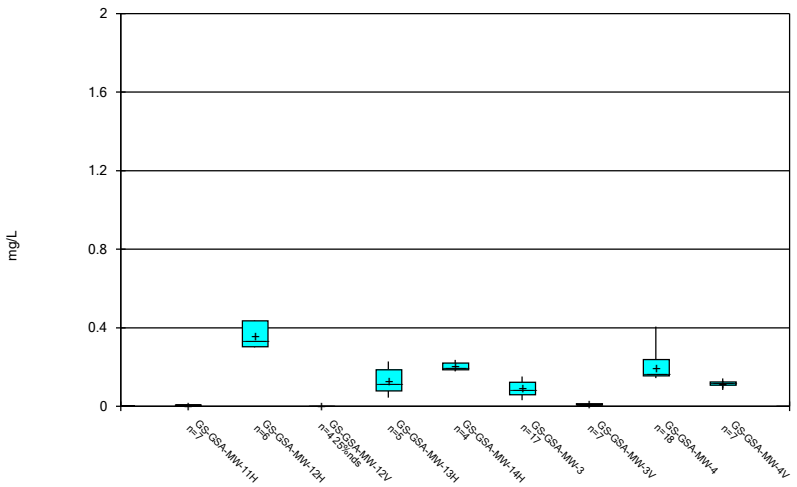
Box & Whiskers Plot



Constituent: Chromium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

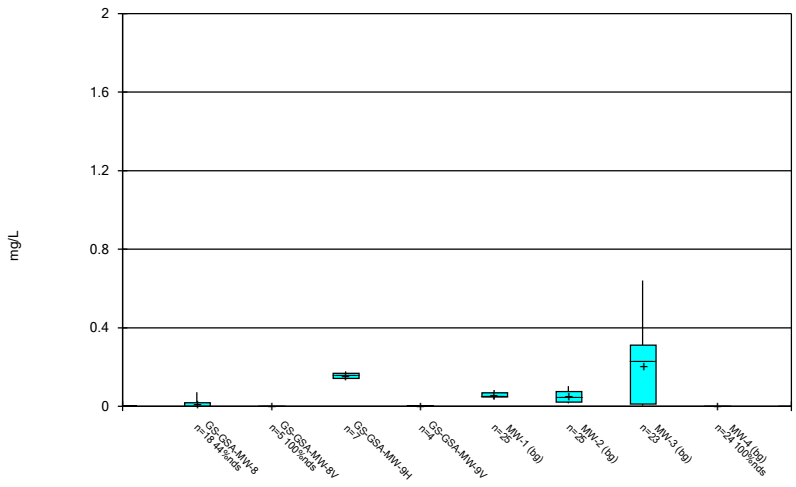
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

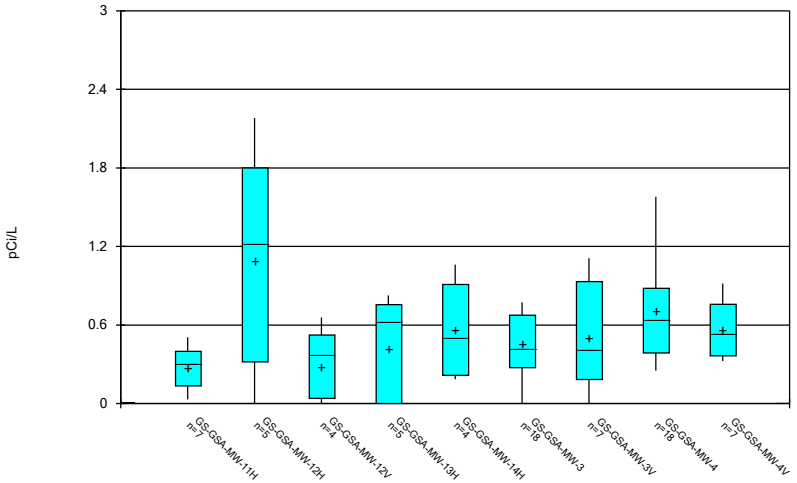
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

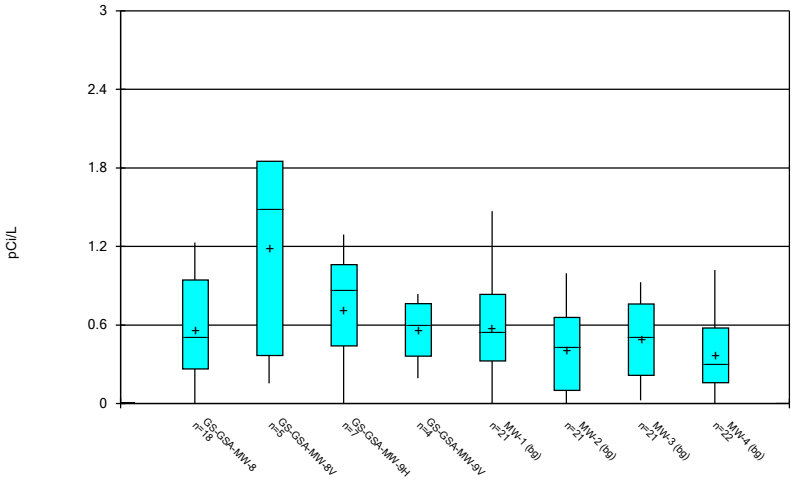
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

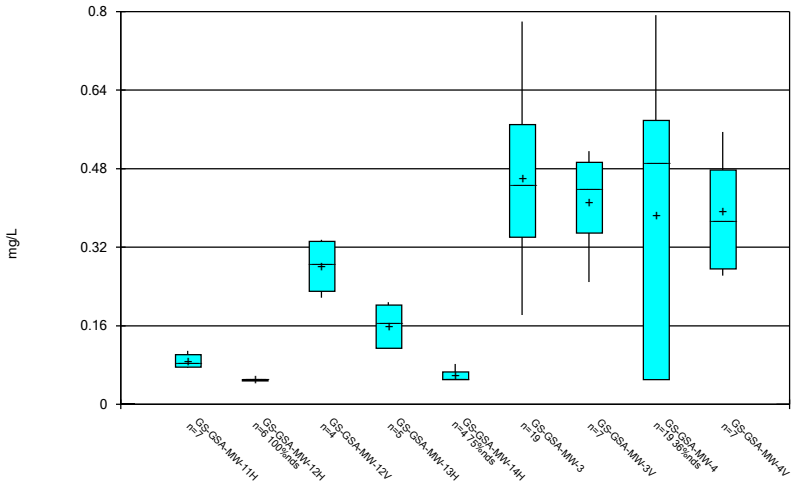
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

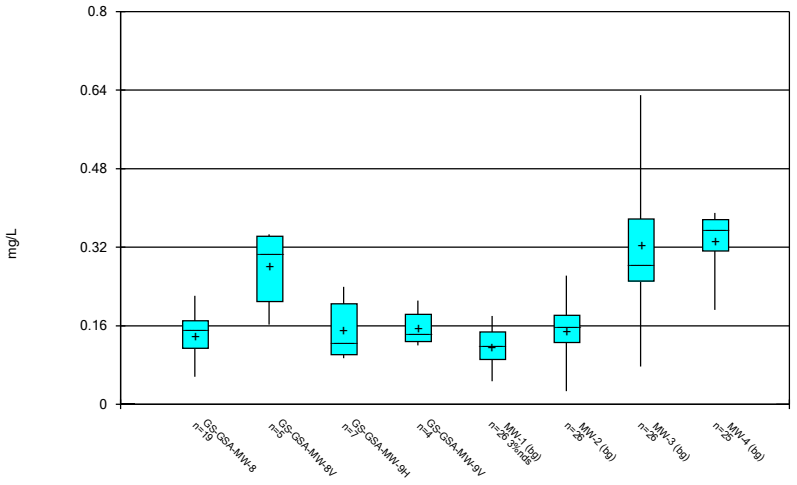
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

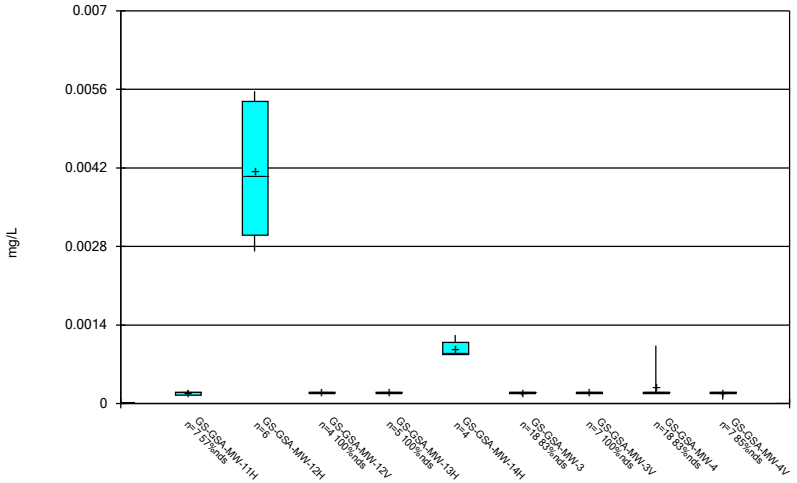
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

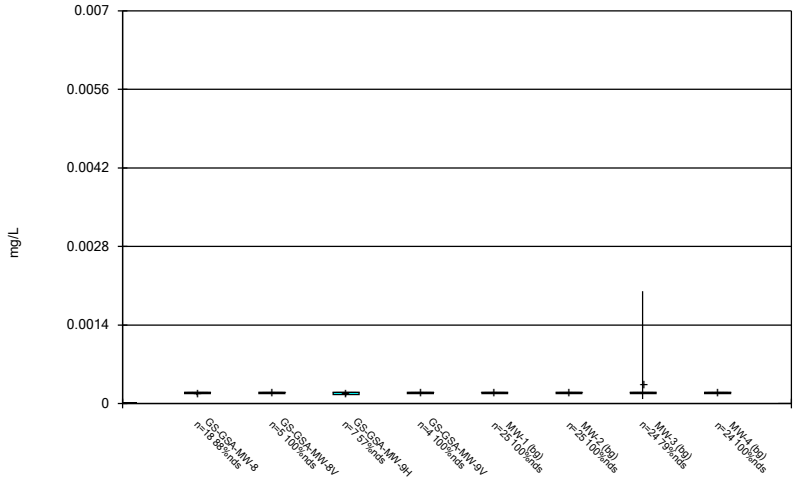
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

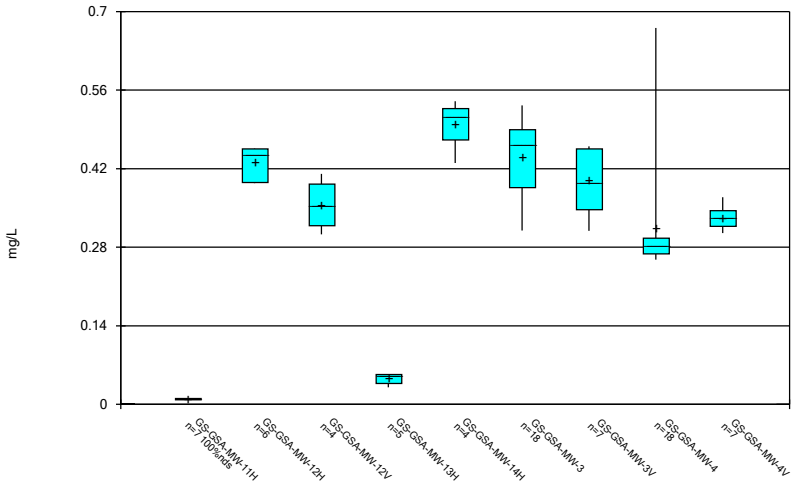
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

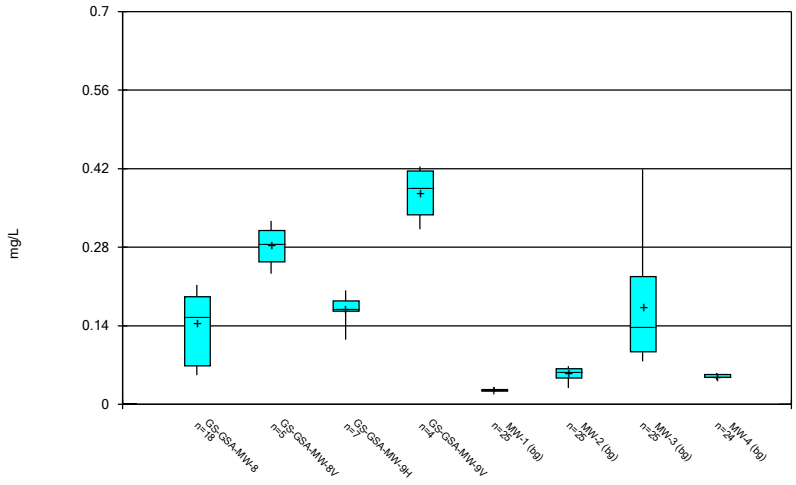
Box & Whiskers Plot



Constituent: Lithium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

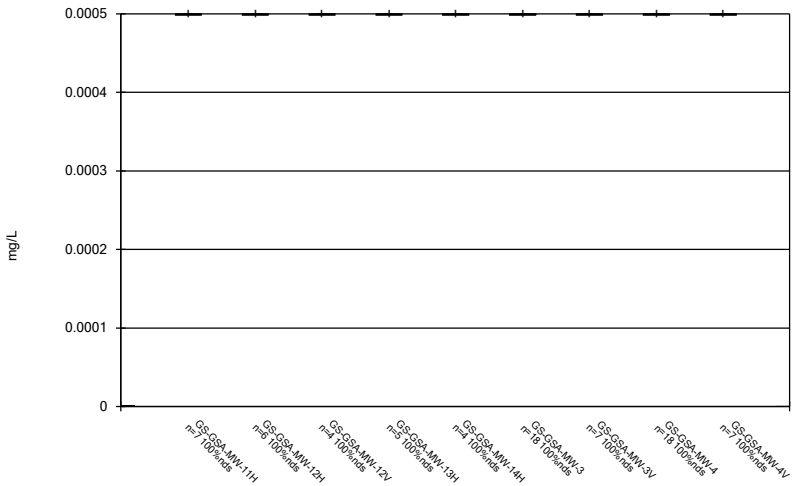
Box & Whiskers Plot



Constituent: Lithium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

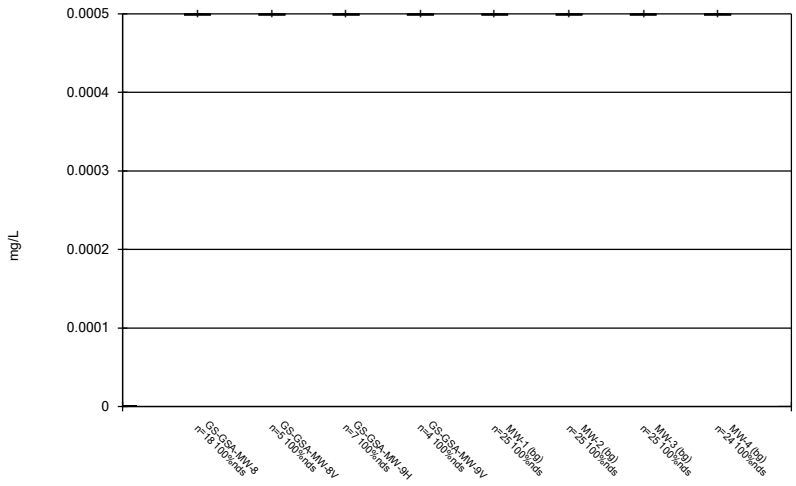
Box & Whiskers Plot



Constituent: Mercury Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

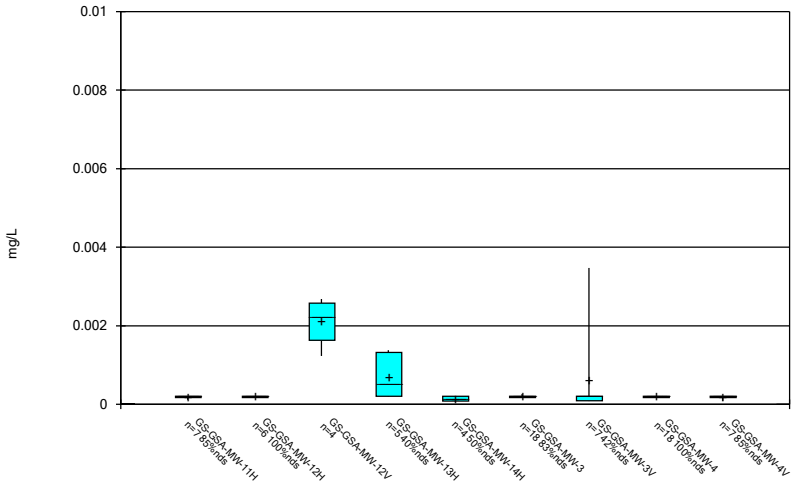
Box & Whiskers Plot



Constituent: Mercury Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

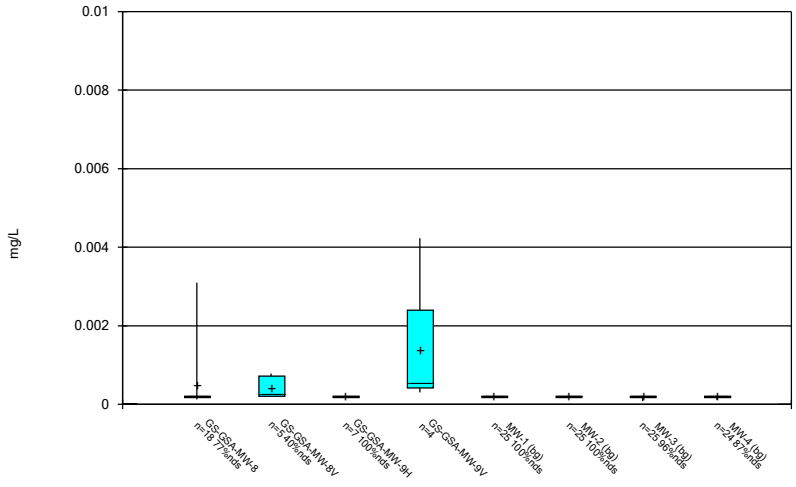
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

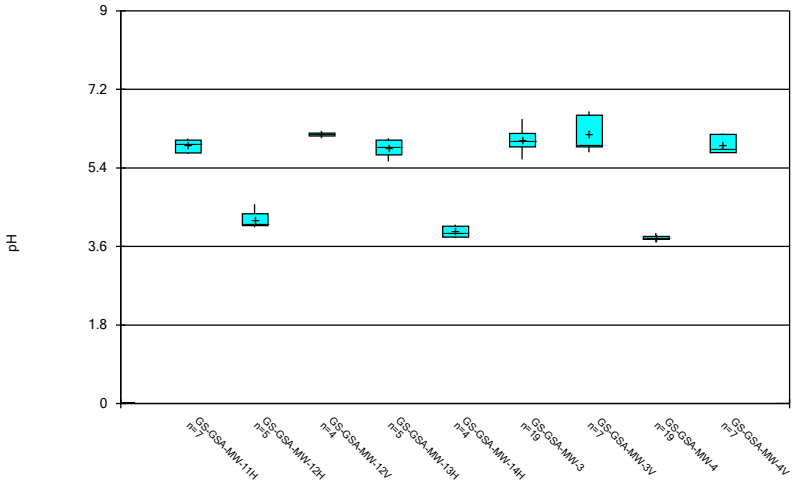
Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

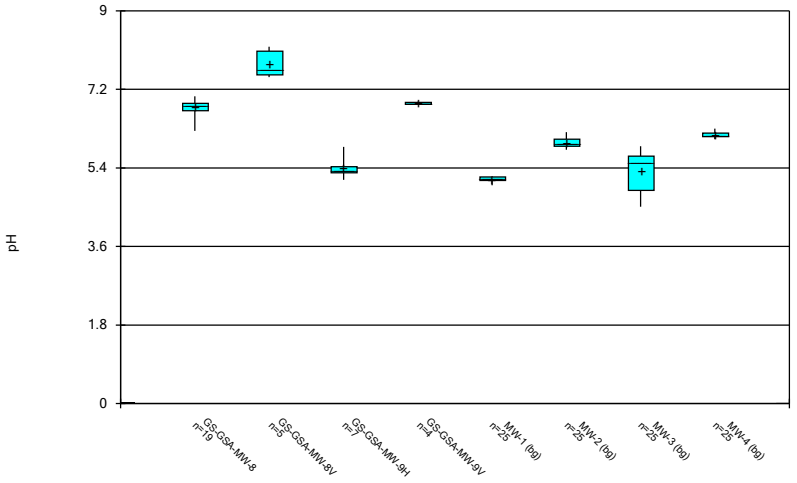
Box & Whiskers Plot



Constituent: pH Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

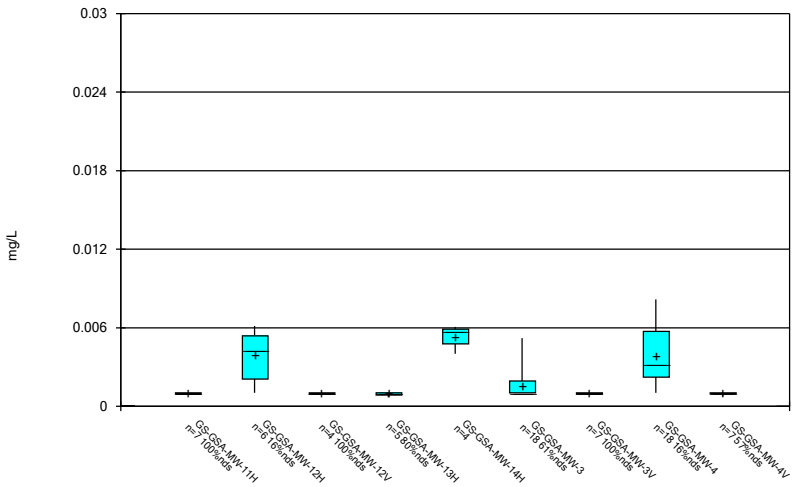
Box & Whiskers Plot



Constituent: pH Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

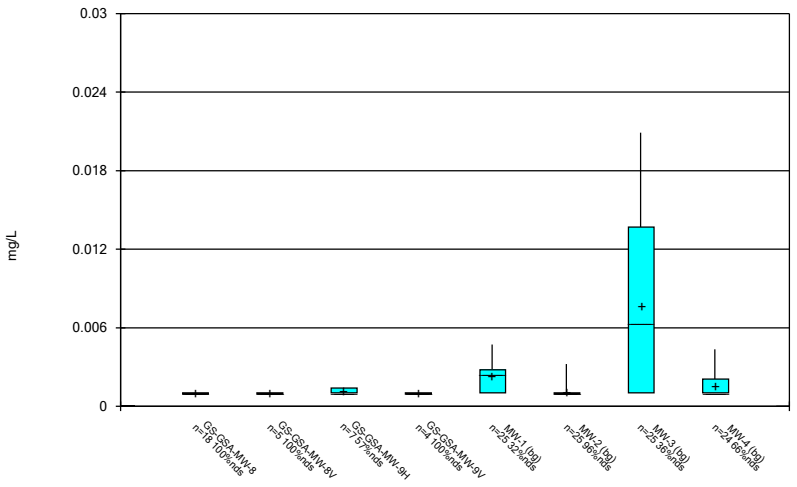
Box & Whiskers Plot



Constituent: Selenium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

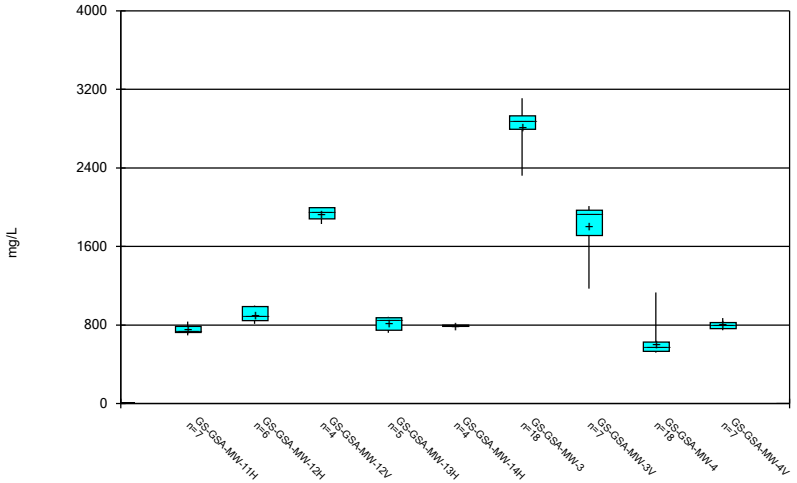
Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Selenium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

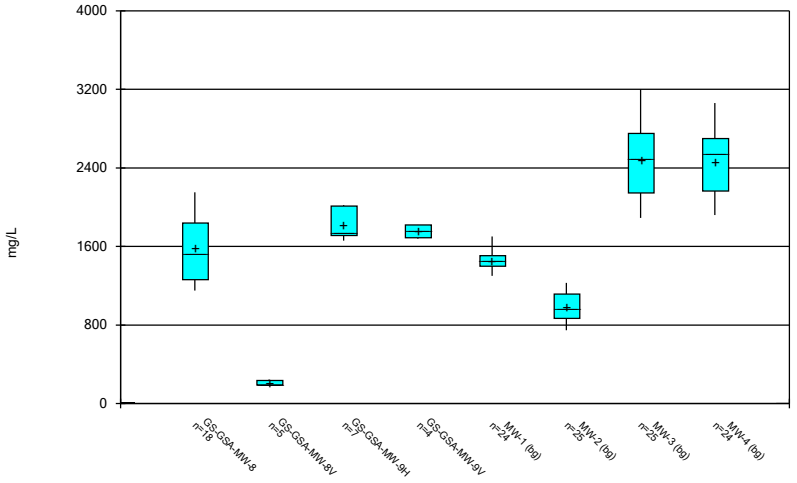
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

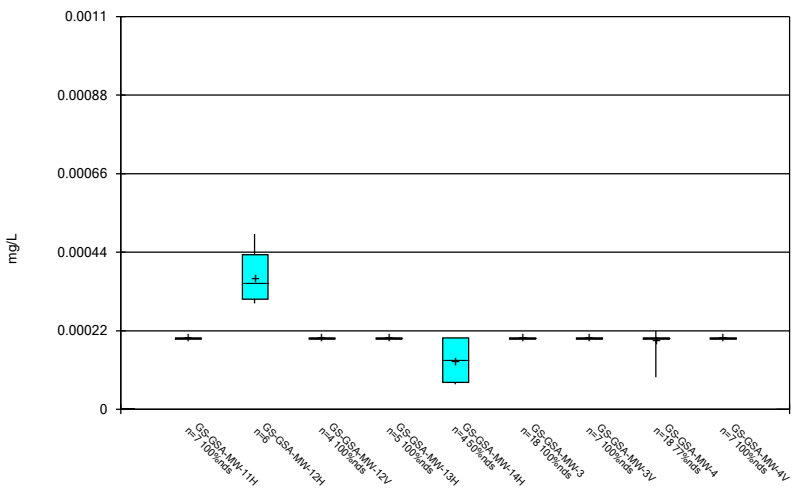
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

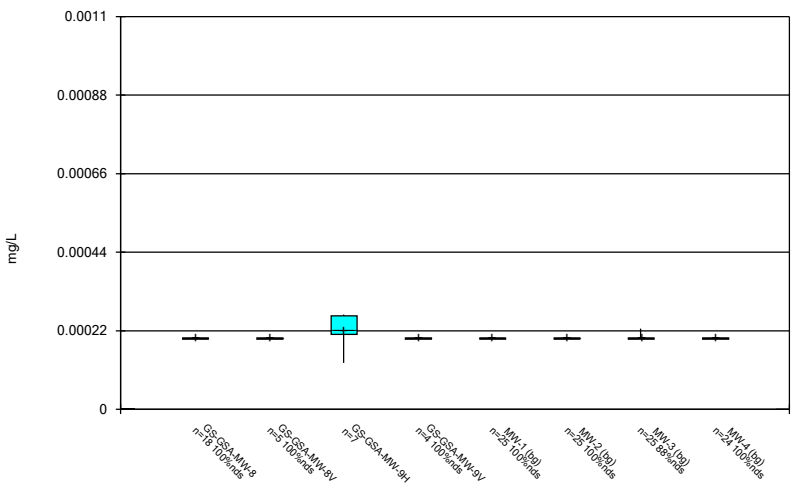
Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

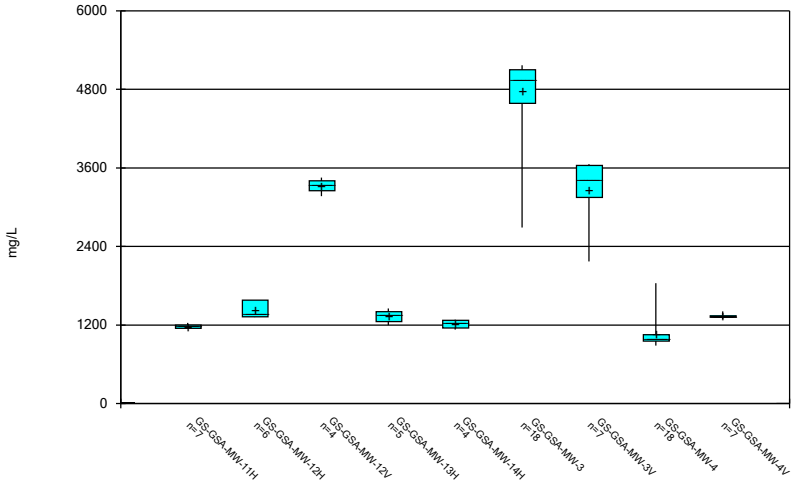
Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

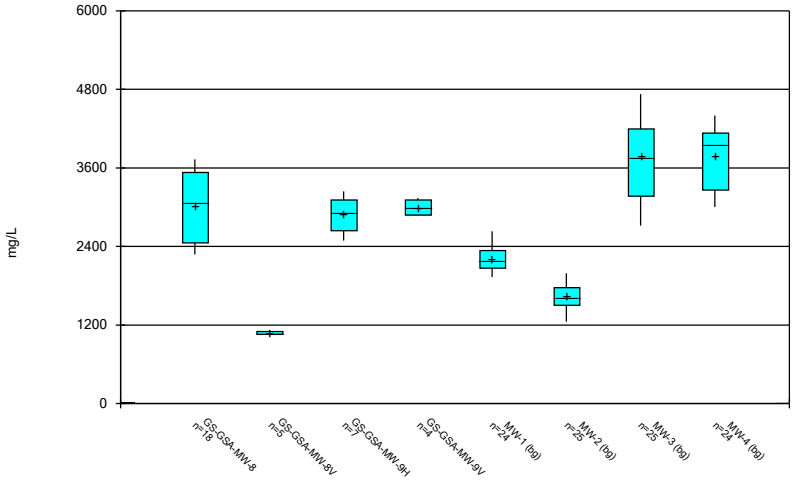
Box & Whiskers Plot



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Box & Whiskers Plot



Constituent: Total dissolved solids Analysis Run 5/11/2022 6:06 PM View: Constituents View
Plant Gorgas Client: Southern Company Data: Gorgas GSA

FIGURE C.

Outlier Summary

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:07 PM

	MW-3 Beryllium (mg/L)	MW-4 Boron (mg/L)	MW-3 Cadmium (mg/L)	GS-GSA-MW-3 Cobalt (mg/L)	MW-3 Cobalt (mg/L)	MW-3 Lead (mg/L)	MW-3 pH (pH)	MW-1 Sulfate (mg/L)	MW-1 Total dissolved solids (mg/L)
4/25/2016			0.0121 (o)						
1/18/2017	0.0169 (o)								
4/17/2017				0.294 (o)					
5/22/2018								2100 (o)	
11/19/2018	0.0185 (o)					0.00692 (o)	3.77 (o)		
5/14/2019		<0.203 (o)							
10/8/2019					1.07 (o)				
10/16/2019					0.848 (o)				3650 (o)

FIGURE D.

Appendix III Intrawell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:15 PM

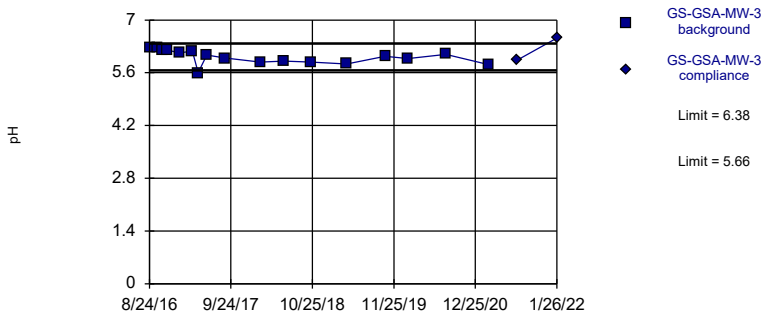
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	**GS-GSA-MW-3**	**6.38**	**5.66**	**1/26/2022**	**6.52**	**Yes**	**17**	**6.02**	**0.1846**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	GS-GSA-MW-4	3.896	3.699	1/27/2022	3.73	No	17	3.798	0.05044	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	GS-GSA-MW-8	7.149	6.399	1/27/2022	6.85	No	17	6.774	0.1922	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	MW-1	5.249	5.046	1/25/2022	5.11	No	23	5.147	0.05471	0	None	No	0.001253	Param Intra 1 of 2
pH (pH)	**MW-2**	**6.145**	**5.788**	**1/25/2022**	**6.22**	**Yes**	**23**	**5.967**	**0.09604**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
pH (pH)	MW-3	5.987	4.38	1/25/2022	5.9	No	23	149.3	35.15	0	None	x^3	0.001253	Param Intra 1 of 2
pH (pH)	**MW-4**	**6.237**	**6.076**	**1/25/2022**	**6.3**	**Yes**	**23**	**6.157**	**0.04323**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-3	3163	n/a	1/26/2022	2620	No	16	2.3e10	4.4e9	0	None	x^3	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	**GS-GSA-MW-4**	**653.2**	**n/a**	**1/27/2022**	**1130**	**Yes**	**16**	**569.6**	**42.43**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Sulfate (mg/L)	GS-GSA-MW-8	2169	n/a	1/27/2022	2000	No	16	1541	318.8	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	1653	n/a	1/25/2022	1430	No	22	1456	105.3	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	1257	n/a	1/25/2022	842	No	23	1001	137.9	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	3195	n/a	1/25/2022	2550	No	23	2487	381.4	0	None	No	0.002505	Param Intra 1 of 2
Sulfate (mg/L)	MW-4	3107	n/a	1/25/2022	1930	No	22	2505	321.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	GS-GSA-MW-3	5170	n/a	1/26/2022	4260	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Total dissolved solids (mg/L)	**GS-GSA-MW-4**	**1084**	**n/a**	**1/27/2022**	**1840**	**Yes**	**16**	**987.9**	**48.59**	**0**	**None**	**No**	**0.002505**	**Param Intra 1 of 2**
Total dissolved solids (mg/L)	GS-GSA-MW-8	4017	n/a	1/27/2022	3290	No	16	2978	527.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-1	2516	n/a	1/25/2022	2150	No	22	2201	168.2	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-2	2005	n/a	1/25/2022	1500	No	23	1648	192.4	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-3	4954	n/a	1/25/2022	3950	No	23	3773	635.9	0	None	No	0.002505	Param Intra 1 of 2
Total dissolved solids (mg/L)	MW-4	4484	n/a	1/25/2022	3180	No	22	5.8e10	1.7e10	0	None	x^3	0.002505	Param Intra 1 of 2

Sanitas™ v.9.6.33 . UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.02, Std. Dev.=0.1846, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9599, critical = 0.851. Kappa = 1.951 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

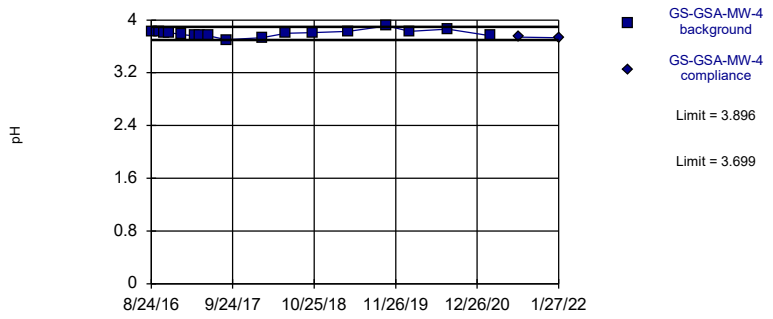
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.798, Std. Dev.=0.05044, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9673, critical = 0.851. Kappa = 1.951 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

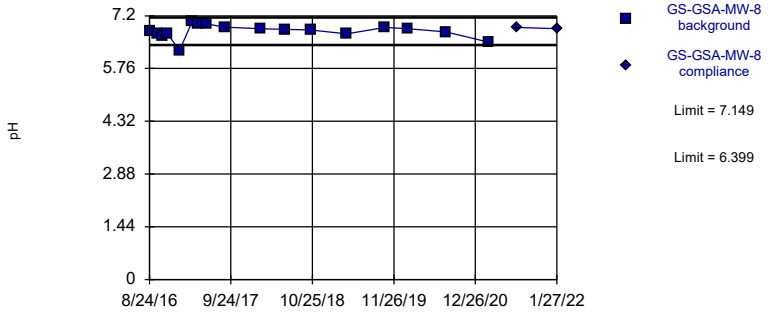
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.774, Std. Dev.=0.1922, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9038, critical = 0.851. Kappa = 1.951 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

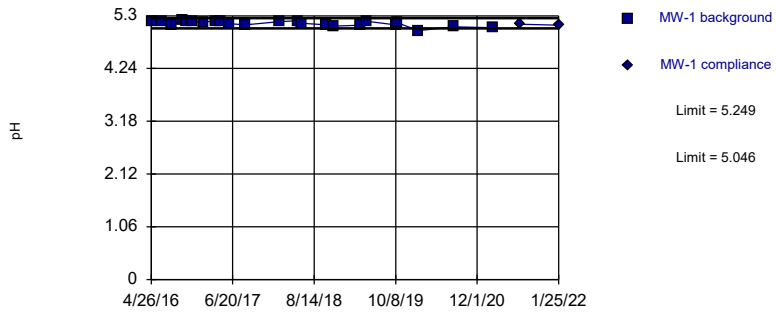
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.147, Std. Dev.=0.05471, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8955, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

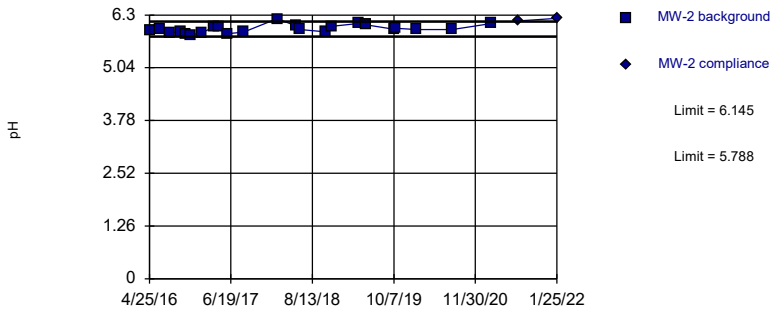
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.967, Std. Dev.=0.09604, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9622, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

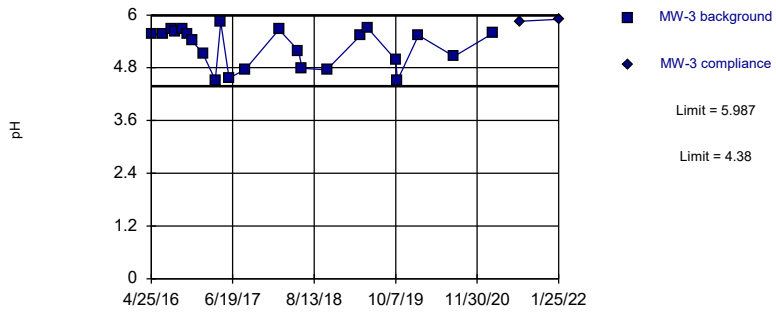
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=149.3, Std. Dev.=35.15, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8845, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

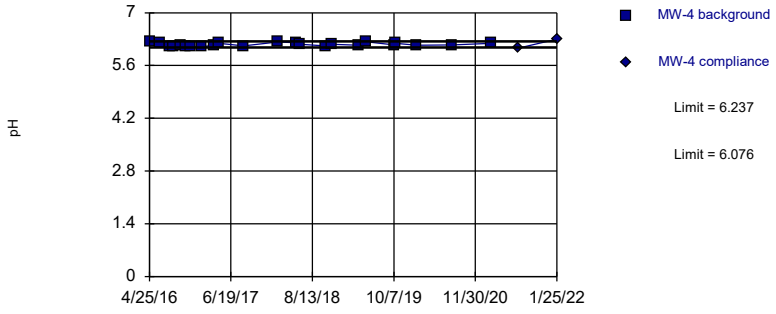
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.157, Std. Dev.=0.04323, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9401, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: pH Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

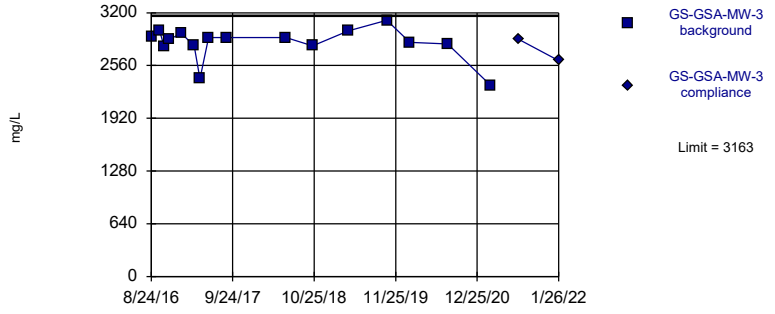
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=2.3e10, Std. Dev.=4.4e9, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8468, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:13 PM View: Appendix III - Intrawell PLs

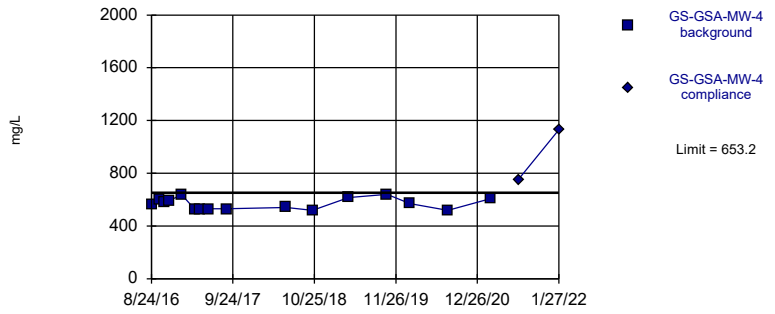
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=569.6, Std. Dev.=42.43, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8989, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

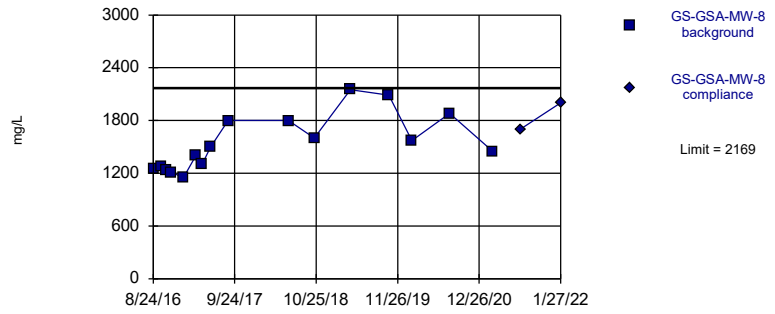
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1541, Std. Dev.=318.8, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9147, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

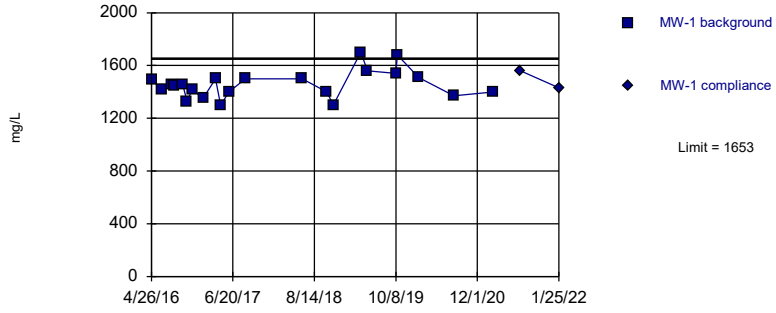
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1456, Std. Dev.=105.3, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9431, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

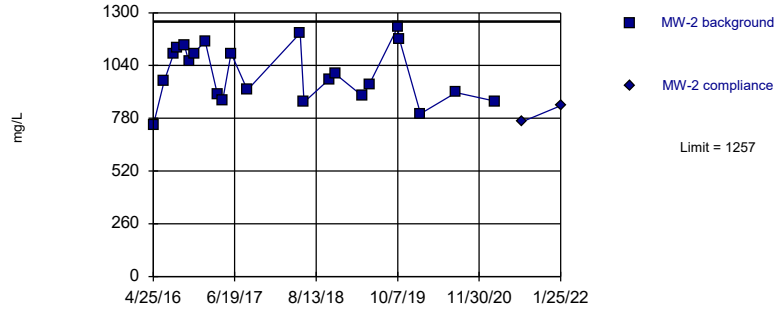
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1001, Std. Dev.=137.9, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9535, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

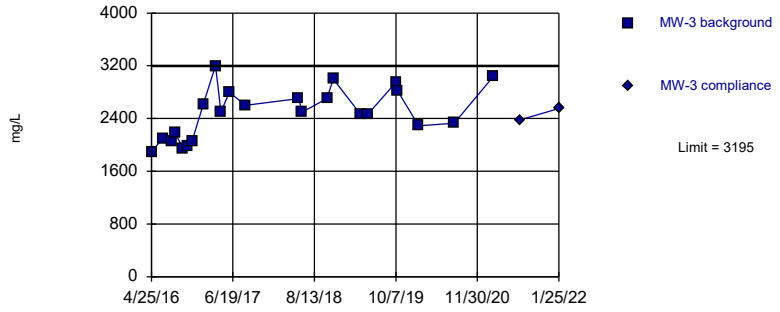
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2487, Std. Dev.=381.4, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.964, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

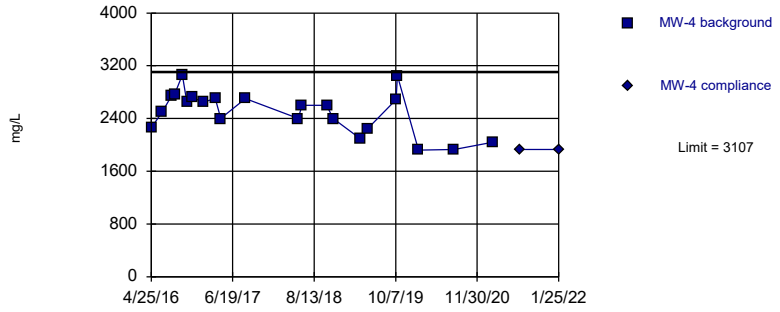
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2505, Std. Dev.=321.9, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Sulfate Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

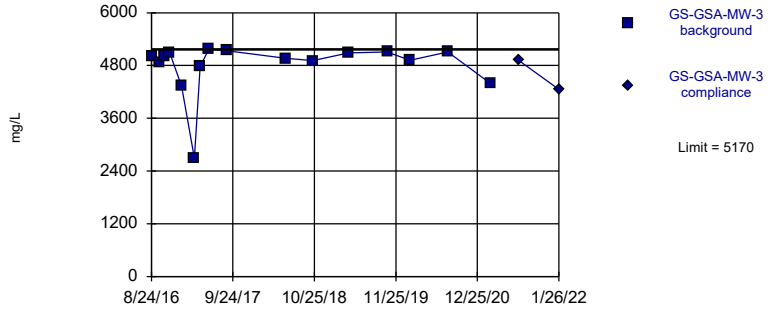
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell 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 16 background values. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

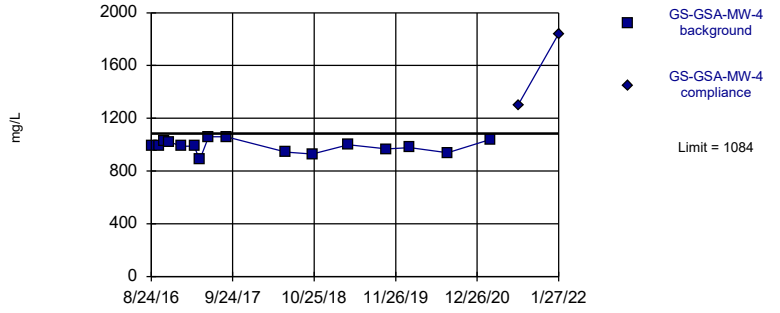
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=987.9, Std. Dev.=48.59, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9659, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

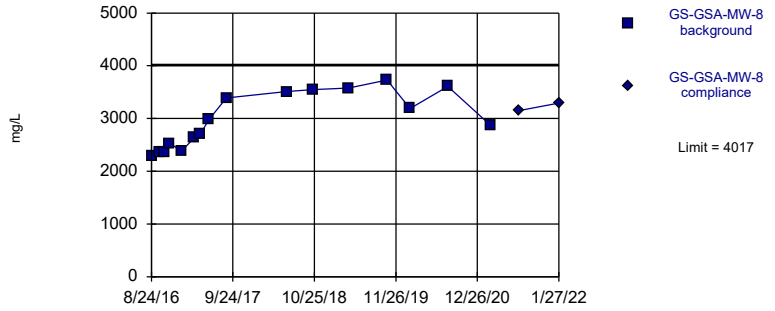
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2978, Std. Dev.=527.4, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8919, critical = 0.844. Kappa = 1.97 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

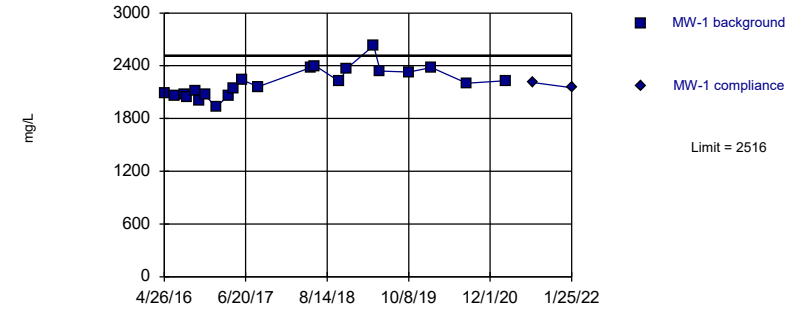
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2201, Std. Dev.=168.2, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9467, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

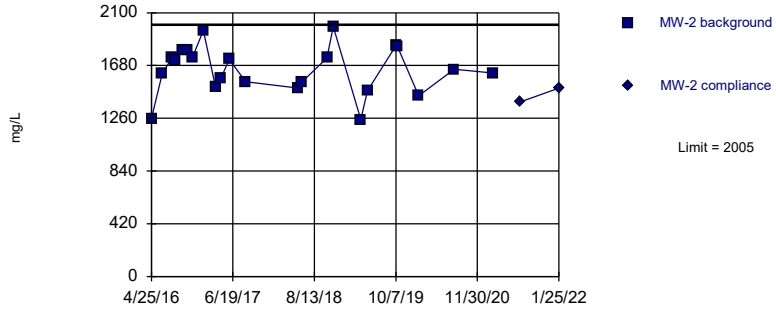
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1648, Std. Dev.=192.4, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.968, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

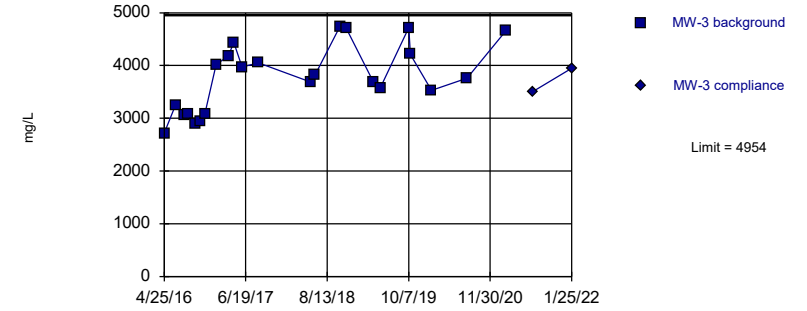
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3773, Std. Dev.=635.9, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9443, critical = 0.881. Kappa = 1.857 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

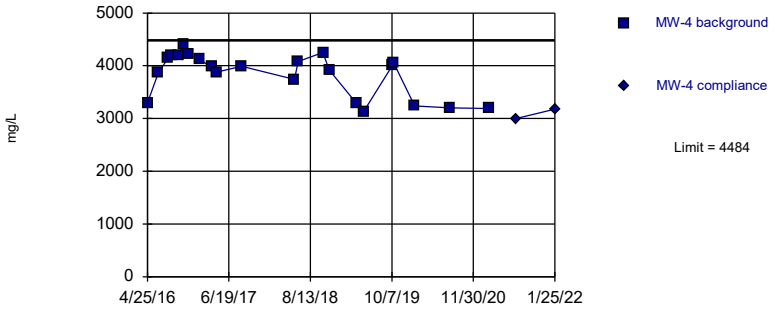
Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=5.8e10, Std. Dev.=1.7e10, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8912, critical = 0.878. Kappa = 1.869 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:14 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-3
8/24/2016	6.28	
10/3/2016	6.28	
10/26/2016	6.19	
11/21/2016	6.2	
1/17/2017	6.13	
3/20/2017	6.17	
4/17/2017	5.6	
5/30/2017	6.07	
8/24/2017	5.99	
2/13/2018	5.88	
6/11/2018	5.91	
10/17/2018	5.88	
4/10/2019	5.83	
10/14/2019	6.04	
2/3/2020	5.98	
8/4/2020	6.09	
3/1/2021	5.82	
7/14/2021		5.93
1/26/2022		6.52

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4	GS-GSA-MW-4
8/24/2016	3.83 (E)	
10/3/2016	3.82 (E)	
10/26/2016	3.81 (E)	
11/21/2016	3.81	
1/17/2017	3.78	
3/21/2017	3.76	
4/17/2017	3.76	
5/30/2017	3.76	
8/24/2017	3.7	
2/13/2018	3.73	
6/11/2018	3.8	
10/17/2018	3.81	
4/10/2019	3.83	
10/14/2019	3.91	
2/4/2020	3.83	
8/5/2020	3.86	
3/3/2021	3.76	
7/14/2021		3.74
1/27/2022		3.73

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8
8/24/2016	6.78	
10/3/2016	6.71	
10/26/2016	6.65	
11/21/2016	6.7	
1/17/2017	6.25	
3/20/2017	7.04	
4/18/2017	6.99	
5/30/2017	6.98	
8/24/2017	6.89	
2/13/2018	6.85	
6/12/2018	6.83	
10/17/2018	6.81	
4/10/2019	6.71	
10/14/2019	6.88	
2/4/2020	6.85	
8/5/2020	6.76	
3/1/2021	6.48	
7/14/2021		6.88
1/27/2022		6.85

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-1	MW-1
4/26/2016	5.2	
6/20/2016	5.18	
8/8/2016	5.12	
10/3/2016	5.21	
10/26/2016	5.2	
11/21/2016	5.19	
1/17/2017	5.17	
3/22/2017	5.2	
4/18/2017	5.2	
5/30/2017	5.14	
8/23/2017	5.12	
2/13/2018	5.18	
5/22/2018	5.2	
6/12/2018	5.15	
10/17/2018	5.12	
11/19/2018	5.09	
4/10/2019	5.11	
5/14/2019	5.19	
10/8/2019	5.12	
10/16/2019	5.16	
2/3/2020	5	
8/3/2020	5.08	
2/22/2021	5.06	
7/12/2021		5.13
1/25/2022		5.11

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:15 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2	MW-2
4/25/2016	5.94	
6/20/2016	5.96	
8/8/2016	5.88	
10/3/2016	5.91	
10/26/2016	5.84	
11/21/2016	5.82	
1/17/2017	5.87	
3/22/2017	6.01	
4/18/2017	6.02	
5/31/2017	5.85	
8/23/2017	5.89	
2/13/2018	6.21	
5/22/2018	6.04	
6/12/2018	5.95	
10/17/2018	5.9	
11/19/2018	6.03	
4/10/2019	6.1	
5/14/2019	6.07	
10/8/2019	5.96	
10/16/2019	5.98	
2/3/2020	5.95	
8/3/2020	5.95	
2/22/2021	6.1	
7/12/2021		6.16
1/25/2022		6.22

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-3	MW-3
4/25/2016	5.56	
6/22/2016	5.57	
8/9/2016	5.67	
8/24/2016	5.63	
10/4/2016	5.69	
10/26/2016	5.56	
11/21/2016	5.42	
1/18/2017	5.11	
3/22/2017	4.52	
4/18/2017	5.84	
5/31/2017	4.56	
8/23/2017	4.77	
2/13/2018	5.67	
5/24/2018	5.19	
6/12/2018	4.79	
10/17/2018	4.75	
11/19/2018	3.77 (o)	
4/10/2019	5.54	
5/14/2019	5.71	
10/8/2019	4.98	
10/16/2019	4.51	
2/3/2020	5.54	
8/3/2020	5.06	
2/22/2021	5.59	
7/12/2021		5.86
1/25/2022		5.9

Prediction Limit

Constituent: pH (pH) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4	MW-4
4/25/2016	6.22	
6/20/2016	6.21	
8/9/2016	6.11	
8/24/2016	6.11	
10/3/2016	6.13	
10/26/2016	6.12	
11/21/2016	6.09	
1/18/2017	6.09	
3/22/2017	6.15	
4/18/2017	6.19	
8/23/2017	6.12	
2/13/2018	6.22	
5/23/2018	6.21	
6/12/2018	6.16	
10/17/2018	6.12	
11/19/2018	6.16	
4/10/2019	6.14	
5/14/2019	6.23	
10/10/2019	6.15	
10/16/2019	6.19	
2/3/2020	6.14	
8/5/2020	6.15	
2/22/2021	6.19	
7/12/2021		6.06
1/25/2022		6.3

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-3
8/24/2016	2910	
10/3/2016	2980	
10/26/2016	2790	
11/21/2016	2880	
1/17/2017	2950	
3/20/2017	2800	
4/17/2017	2400	
5/30/2017	2900	
8/24/2017	2900	
6/11/2018	2900	
10/17/2018	2800	
4/10/2019	2980	
10/14/2019	3110	
2/3/2020	2840	
8/4/2020	2820	
3/1/2021	2320	
7/14/2021		2880
1/26/2022		2620

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4	GS-GSA-MW-4
8/24/2016	567	
10/3/2016	596	
10/26/2016	585	
11/21/2016	593	
1/17/2017	637	
3/21/2017	530	
4/17/2017	530	
5/30/2017	530	
8/24/2017	530	
6/11/2018	540	
10/17/2018	520	
4/10/2019	616	
10/14/2019	641	
2/4/2020	571	
8/5/2020	519	
3/3/2021	609	
7/14/2021		752
1/27/2022		1130

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8
8/24/2016	1250	
10/3/2016	1270	
10/26/2016	1240	
11/21/2016	1210	
1/17/2017	1150	
3/20/2017	1400	
4/18/2017	1300	
5/30/2017	1500	
8/24/2017	1800	
6/12/2018	1800	
10/17/2018	1600	
4/10/2019	2150	
10/14/2019	2090	
2/4/2020	1570	
8/5/2020	1880	
3/1/2021	1450	
7/14/2021		1700
1/27/2022		2000

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-1	MW-1
4/26/2016	1490	
6/20/2016	1420	
8/8/2016	1460	
8/24/2016	1450	
10/3/2016	1460	
10/26/2016	1330	
11/21/2016	1420	
1/17/2017	1350	
3/22/2017	1500	
4/18/2017	1300	
5/30/2017	1400	
8/23/2017	1500	
5/22/2018	2100 (o)	
6/12/2018	1500	
10/17/2018	1400	
11/19/2018	1300	
4/10/2019	1700	
5/14/2019	1560	
10/8/2019	1540	
10/16/2019	1680	
2/3/2020	1510	
8/3/2020	1370	
2/22/2021	1400	
7/12/2021		1560
1/25/2022		1430

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2	MW-2
4/25/2016	745	
6/20/2016	964	
8/8/2016	1100	
8/24/2016	1130	
10/3/2016	1140	
10/26/2016	1060	
11/21/2016	1100	
1/17/2017	1160	
3/22/2017	900	
4/18/2017	870	
5/31/2017	1100	
8/23/2017	920	
5/22/2018	1200	
6/12/2018	860	
10/17/2018	970	
11/19/2018	1000	
4/10/2019	889	
5/14/2019	948	
10/8/2019	1230	
10/16/2019	1170	
2/3/2020	803	
8/3/2020	907	
2/22/2021	864	
7/12/2021		763
1/25/2022		842

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-3	MW-3
4/25/2016	1890	
6/22/2016	2100	
8/9/2016	2050	
8/24/2016	2190	
10/4/2016	1950	
10/26/2016	1980	
11/21/2016	2060	
1/18/2017	2620	
3/22/2017	3200	
4/18/2017	2500	
5/31/2017	2800	
8/23/2017	2600	
5/24/2018	2700	
6/12/2018	2500	
10/17/2018	2700	
11/19/2018	3000	
4/10/2019	2460	
5/14/2019	2460	
10/8/2019	2950	
10/16/2019	2820	
2/3/2020	2290	
8/3/2020	2330	
2/22/2021	3040	
7/12/2021		2380
1/25/2022		2550

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4	MW-4
4/25/2016	2260	
6/20/2016	2500	
8/9/2016	2750	
8/24/2016	2770	
10/3/2016	3060	
10/26/2016	2650	
11/21/2016	2720	
1/18/2017	2650	
3/22/2017	2700	
4/18/2017	2400	
8/23/2017	2700	
5/23/2018	2400	
6/12/2018	2600	
10/17/2018	2600	
11/19/2018	2400	
4/10/2019	2090	
5/14/2019	2240	
10/10/2019	2690	
10/16/2019	3050	
2/3/2020	1920	
8/5/2020	1930	
2/22/2021	2040	
7/12/2021		1930
1/25/2022		1930

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-3
8/24/2016	5020	
10/3/2016	4880	
10/26/2016	5020	
11/21/2016	5090	
1/17/2017	4330	
3/20/2017	2690	
4/17/2017	4780	
5/30/2017	5170	
8/24/2017	5140	
6/11/2018	4960	
10/17/2018	4910	
4/10/2019	5090	
10/14/2019	5110	
2/3/2020	4920	
8/4/2020	5110	
3/1/2021	4390	
7/14/2021		4920
1/26/2022		4260

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4	GS-GSA-MW-4
8/24/2016	992	
10/3/2016	988	
10/26/2016	1030	
11/21/2016	1020	
1/17/2017	988	
3/21/2017	990	
4/17/2017	884	
5/30/2017	1060	
8/24/2017	1060	
6/11/2018	944	
10/17/2018	928	
4/10/2019	1000	
10/14/2019	967	
2/4/2020	978	
8/5/2020	938	
3/3/2021	1040	
7/14/2021		1300
1/27/2022		1840

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-8	GS-GSA-MW-8
8/24/2016	2280	
10/3/2016	2370	
10/26/2016	2350	
11/21/2016	2530	
1/17/2017	2380	
3/20/2017	2630	
4/18/2017	2700	
5/30/2017	2980	
8/24/2017	3390	
6/12/2018	3510	
10/17/2018	3550	
4/10/2019	3580	
10/14/2019	3730	
2/4/2020	3190	
8/5/2020	3610	
3/1/2021	2870	
7/14/2021		3150
1/27/2022		3290

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-1	MW-1
4/26/2016	2080	
6/20/2016	2060	
8/8/2016	2070	
8/24/2016	2040	
10/3/2016	2110	
10/26/2016	2000	
11/21/2016	2070	
1/17/2017	1930	
3/22/2017	2060	
4/18/2017	2140	
5/30/2017	2240	
8/23/2017	2160	
5/22/2018	2380	
6/12/2018	2400	
10/17/2018	2220	
11/19/2018	2360	
4/10/2019	2630	
5/14/2019	2340	
10/8/2019	2330	
10/16/2019	3650 (o)	
2/3/2020	2380	
8/3/2020	2200	
2/22/2021	2230	
7/12/2021		2210
1/25/2022		2150

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2	MW-2
4/25/2016	1260	
6/20/2016	1620	
8/8/2016	1740	
8/24/2016	1720	
10/3/2016	1800	
10/26/2016	1800	
11/21/2016	1740	
1/17/2017	1960	
3/22/2017	1510	
4/18/2017	1580	
5/31/2017	1730	
8/23/2017	1550	
5/22/2018	1500	
6/12/2018	1550	
10/17/2018	1740	
11/19/2018	1990	
4/10/2019	1250	
5/14/2019	1480	
10/8/2019	1840	
10/16/2019	1830	
2/3/2020	1440	
8/3/2020	1650	
2/22/2021	1620	
7/12/2021		1390
1/25/2022		1500

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-3	MW-3
4/25/2016	2720	
6/22/2016	3250	
8/9/2016	3050	
8/24/2016	3080	
10/4/2016	2900	
10/26/2016	2940	
11/21/2016	3090	
1/18/2017	4020	
3/22/2017	4180	
4/18/2017	4440	
5/31/2017	3970	
8/23/2017	4050	
5/24/2018	3680	
6/12/2018	3820	
10/17/2018	4730	
11/19/2018	4710	
4/10/2019	3680	
5/14/2019	3580	
10/8/2019	4720	
10/16/2019	4210	
2/3/2020	3530	
8/3/2020	3760	
2/22/2021	4670	
7/12/2021		3510
1/25/2022		3950

Prediction Limit

Constituent: Total dissolved solids (mg/L) Analysis Run 5/11/2022 6:16 PM View: Appendix III - Intrawell PLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4	MW-4
4/25/2016	3300	
6/20/2016	3870	
8/9/2016	4140	
8/24/2016	4190	
10/3/2016	4190	
10/26/2016	4400	
11/21/2016	4230	
1/18/2017	4120	
3/22/2017	3980	
4/18/2017	3880	
8/23/2017	3990	
5/23/2018	3740	
6/12/2018	4080	
10/17/2018	4250	
11/19/2018	3920	
4/10/2019	3280	
5/14/2019	3130 (D)	
10/10/2019	4000	
10/16/2019	4060	
2/3/2020	3240	
8/5/2020	3200	
2/22/2021	3190	
7/12/2021		3000
1/25/2022		3180

FIGURE E.

Appendix III Interwell Prediction Limits - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 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-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**

Appendix III Interwell Prediction Limits - All Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:12 PM

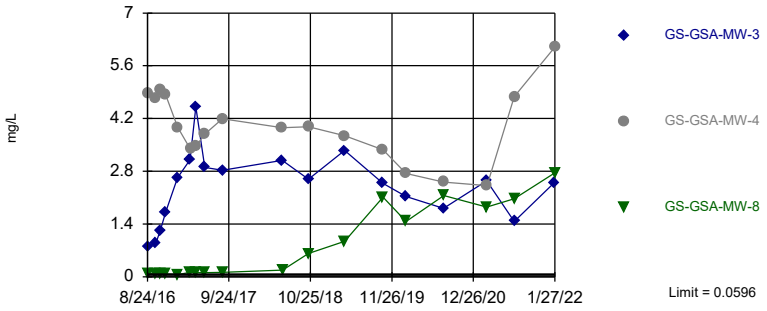
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**GS-GSA-MW-3**	**0.0596**	**n/a**	**1/26/2022**	**2.5**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-4**	**0.0596**	**n/a**	**1/27/2022**	**6.1**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**GS-GSA-MW-8**	**0.0596**	**n/a**	**1/27/2022**	**2.76**	**Yes**	**98**	**n/a**	**n/a**	**21.43**	**n/a**	**n/a**	**0.0002025**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**GS-GSA-MW-3**	**431**	**n/a**	**1/26/2022**	**517**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	GS-GSA-MW-4	431	n/a	1/27/2022	181	No	99	n/a	n/a	0	n/a	n/a	0.0001981	NP Inter (normality) 1 of 2
Calcium (mg/L)	**GS-GSA-MW-8**	**431**	**n/a**	**1/27/2022**	**491**	**Yes**	**99**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001981**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-3**	**3.664**	**n/a**	**1/26/2022**	**255**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-4**	**3.664**	**n/a**	**1/27/2022**	**103**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**GS-GSA-MW-8**	**3.664**	**n/a**	**1/27/2022**	**122**	**Yes**	**99**	**1.291**	**0.15**	**3.03**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Fluoride (mg/L)	GS-GSA-MW-3	0.63	n/a	1/26/2022	0.447	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-4	0.63	n/a	1/27/2022	0.05ND	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GS-GSA-MW-8	0.63	n/a	1/27/2022	0.179	No	103	n/a	n/a	0.9709	n/a	n/a	0.0001849	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.33 . UG

Exceeds Limit: GS-GSA-MW-3, GS-GSA-MW-4, GS-GSA-MW-8

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 98 background values. 21.43% NDs. Annual per-constituent alpha = 0.001215. Individual comparison alpha = 0.0002025 (1 of 2). Comparing 3 points to limit.

Constituent: Boron Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

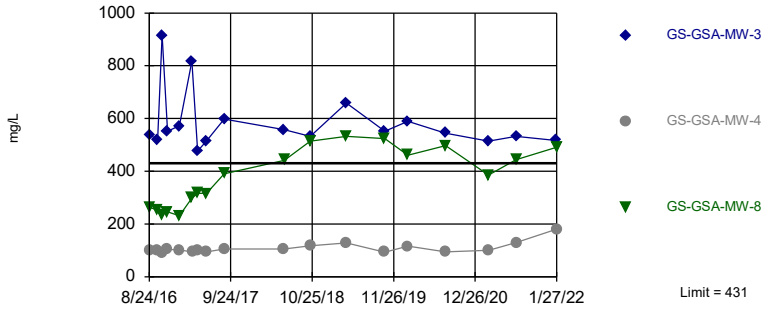
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limit: GS-GSA-MW-3, GS-GSA-MW-8

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 99 background values. Annual per-constituent alpha = 0.001188. Individual comparison alpha = 0.0001981 (1 of 2). Comparing 3 points to limit.

Constituent: Calcium Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

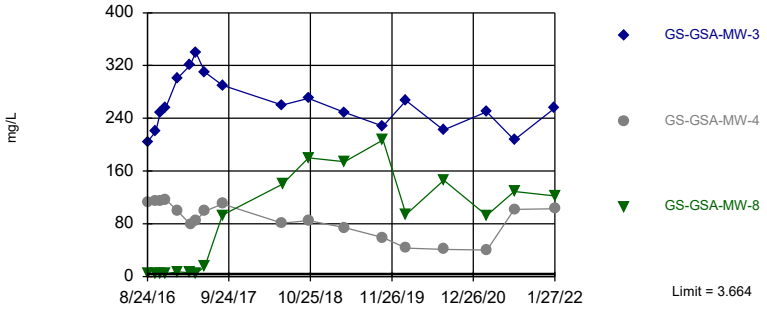
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Exceeds Limit: GS-GSA-MW-3, GS-GSA-MW-4, GS-GSA-MW-8

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=1.291, Std. Dev.=0.15, n=99, 3.03% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9683, critical = 0.967. Kappa = 1.673 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Chloride Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

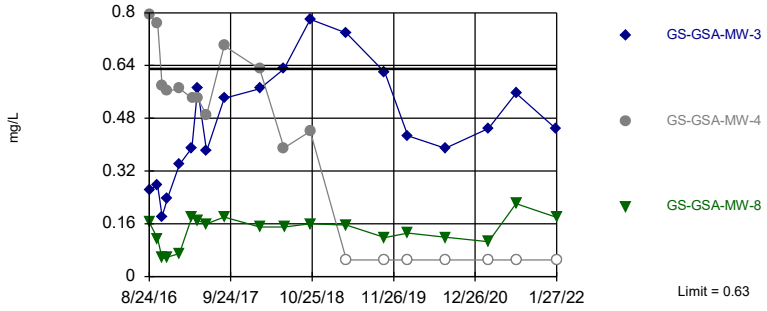
Sanitas™ v.9.6.33 . UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 103 background values. 0.9709% NDs. Annual per-constituent alpha = 0.001109. Individual comparison alpha = 0.0001849 (1 of 2). Comparing 3 points to limit.

Constituent: Fluoride Analysis Run 5/11/2022 6:10 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-2 (bg)	MW-4 (bg)	MW-3 (bg)	MW-1 (bg)	GS-GSA-MW-4	GS-GSA-MW-3	GS-GSA-MW-8
4/25/2016	0.0241 (J)	0.0414 (J)	0.028 (J)				
4/26/2016				0.0231 (J)			
6/20/2016	0.0284 (J)	0.0434 (J)		0.0227 (J)			
6/22/2016			0.0433 (J)				
8/8/2016	0.034 (J)			0.0278 (J)			
8/9/2016		0.0453 (J)	0.0429 (J)				
8/24/2016	0.0316 (J)	0.0451 (J)	0.0431 (J)	0.0247 (J)	4.88	0.799	0.0898 (J)
10/3/2016	0.0367 (J)	0.0511 (J)		0.0307 (J)	4.75	0.889	0.0821 (J)
10/4/2016			0.04 (J)				
10/26/2016	0.0331 (J)	0.0507 (J)	0.0375 (J)	0.0241 (J)	4.96	1.23	0.0889 (J)
11/21/2016	0.035 (J)	0.0458 (J)	0.0406 (J)	0.0202 (J)	4.82	1.72	0.0788 (J)
1/17/2017	0.0259 (J)			0.0201 (J)	3.97	2.63	0.0607 (J)
1/18/2017		0.0445 (J)	0.0548 (J)				
3/20/2017						3.11	0.114
3/21/2017					3.39		
3/22/2017	0.0243 (J)	0.0432 (J)	0.0344 (J)	0.0224 (J)			
4/17/2017					3.46	4.51	
4/18/2017	0.0206 (J)	0.0409 (J)	<0.1015	<0.1015			0.108
5/30/2017				<0.1015	3.79	2.9	0.105
5/31/2017	0.0234 (J)		0.0454 (J)				
8/23/2017	0.0267 (J)	0.042 (J)	0.0425 (J)	0.0253 (J)			
8/24/2017					4.19	2.83	0.12
5/22/2018	0.0251 (J)			0.0224 (J)			
5/23/2018		0.0433 (J)					
5/24/2018			0.0339 (J)				
6/11/2018					3.96	3.09	
6/12/2018	0.0275 (J)	0.0478 (J)	0.0371 (J)	0.0214 (J)			0.181
10/17/2018	0.0321 (J)	0.0468 (J)	0.0596 (J)	0.0216 (J)	3.98	2.59	0.616
11/19/2018	0.0324 (J)	0.0526 (J)	0.0514 (J)	0.0237 (J)			
4/10/2019	<0.1015	0.0438 (J)	<0.1015	0.0304 (J)	3.74	3.35	0.944
5/14/2019	<0.1015	<0.203 (o)	<0.1015	<0.1015			
10/8/2019	0.0371 (J)		0.0537 (J)	<0.1015			
10/10/2019		0.0487 (J)					
10/14/2019					3.37	2.48	2.11
10/16/2019	0.0419 (J)	0.0505 (J)	0.05 (J)	0.0385 (J)			
2/3/2020	<0.1015	0.0433 (J)	<0.1015	<0.1015		2.13	
2/4/2020					2.74		1.47
8/3/2020	0.0317 (J)		0.0424 (J)	<0.1015			
8/4/2020						1.82	
8/5/2020		0.0459 (J)			2.51		2.16
2/22/2021	<0.1015	0.0397 (J)	<0.1015	0.0307 (J)			
3/1/2021						2.55	1.85
3/3/2021					2.42		
7/12/2021	<0.1015	0.0411 (J)	<0.1015	<0.1015			
7/14/2021					4.78	1.47	2.07
1/25/2022	<0.1015	0.0408 (J)	<0.1015	<0.1015			
1/26/2022						2.5	
1/27/2022					6.1		2.76

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4 (bg)	MW-3 (bg)	MW-2 (bg)	MW-1 (bg)	GS-GSA-MW-3	GS-GSA-MW-8	GS-GSA-MW-4
4/25/2016	261	224	123				
4/26/2016				147			
6/20/2016	295		168	152			
6/22/2016		266					
8/8/2016			180	150			
8/9/2016	318	260					
8/24/2016	319	274	180	142	539	263	102
10/3/2016	293		184	139	519.7	253	98.4
10/4/2016		243					
10/26/2016	311	254	171	133	916	235	88.7
11/21/2016	320	263	179	144	552	246	104
1/17/2017			188	131	572	231	102
1/18/2017	417	431					
3/20/2017					817	298	
3/21/2017							94.7
3/22/2017	292	318	155	141			
4/17/2017					476		97.9
4/18/2017	302	296	156	149		317	
5/30/2017				140	515	316	93.9
5/31/2017		306	151				
8/23/2017	297	298	155	152			
8/24/2017					598	391	105
5/22/2018			172	166			
5/23/2018	296						
5/24/2018		297					
6/11/2018					558		105
6/12/2018	355	318	179	203		442	
10/17/2018	342	392	200	171	533	514	117
11/19/2018	289	387	221	154			
4/10/2019	356	348	200	243	659	533	129
5/14/2019	254	254	168	167			
10/8/2019		371	190	157			
10/10/2019	302						
10/14/2019					552	524	93.5
10/16/2019	356	346	194	157			
2/3/2020	265	276	172	172	589		
2/4/2020						461	116
8/3/2020		285	172	148			
8/4/2020					545		
8/5/2020	281					497	94.7
2/22/2021	271	312	178	151			
3/1/2021					514	386	
3/3/2021							100
7/12/2021	242	252	159	149			
7/14/2021					533	444	130
1/25/2022	259	285	179	150			
1/26/2022					517		
1/27/2022						491	181

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4 (bg)	MW-3 (bg)	MW-2 (bg)	MW-1 (bg)	GS-GSA-MW-3	GS-GSA-MW-8	GS-GSA-MW-4
4/25/2016	1.53	1.32	1.9				
4/26/2016				1.94			
6/20/2016	1.85		3.43	2.09			
6/22/2016		1.46					
8/8/2016			3.31	2.18			
8/9/2016	1.95	1.35					
8/24/2016	2.07	1.47	3.23	2.22	204	4.03	112
10/3/2016	2.02		3.21	2.34	220	3.87	115
10/4/2016		1.59					
10/26/2016	2.07	1.27	3.35	2.34	249	4.08	115
11/21/2016	2.39	1.38	3.34	2.5	256	4.39	117
1/17/2017			3.58	2.68	301	7.22	99.3
1/18/2017	1.9	1.34					
3/20/2017					320	5.7	
3/21/2017							79
3/22/2017	1.5 (J)	2	3.4	3.7			
4/17/2017					340		85
4/18/2017	1.6 (J)	2.2	2.6	2.4		4.7	
5/30/2017				2.6	310	15	99
5/31/2017		1.5 (J)	4.4				
8/23/2017	2.3	1.8 (J)	4.4	2.7			
8/24/2017					290	93	110
5/22/2018			3.2	2.3			
5/23/2018	2						
5/24/2018		1.6 (J)					
6/11/2018					260		81
6/12/2018	1.7 (J)	1.4 (J)	3.7	2.3		140	
10/17/2018	1.5 (J)	<2	4.6	1.7 (J)	270	180	85
11/19/2018	<2	<2	3	1.7 (J)			
4/10/2019	1.88	2.25	1.76	2.36	249	174	74.3
5/14/2019	1.82	2.28	2.98	2.28			
10/8/2019		1.36	4.26	2.31			
10/10/2019	1.93						
10/14/2019					228	207	59.1
10/16/2019	1.92	1.4	4.04	2.42			
2/3/2020	1.72	2.12	2.48	2.07	267		
2/4/2020						94.1	43.2
8/3/2020		1.17	4.03	2.05			
8/4/2020					222		
8/5/2020	1.57					146	41
2/22/2021	1.52	2.22	1.72	2.16			
3/1/2021					250	92.5	
3/3/2021							40.3
7/12/2021	1.56	2.13	2.36	2.19			
7/14/2021					207	129	102
1/25/2022	1.54	2.12	2.14	2.09			
1/26/2022					255		
1/27/2022						122	103

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:12 PM View: Appendix III - Interwell PL

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	MW-4 (bg)	MW-3 (bg)	MW-2 (bg)	MW-1 (bg)	GS-GSA-MW-8	GS-GSA-MW-4	GS-GSA-MW-3
4/25/2016	0.372	0.243 (J)	0.149 (J)				
4/26/2016				0.146 (J)			
6/20/2016	0.361		0.148 (J)	0.148 (J)			
6/22/2016		0.269 (J)					
8/8/2016			0.134 (J)	0.137 (J)			
8/9/2016	0.326	0.363					
8/24/2016	0.329	0.346	0.129 (J)	0.133 (J)	0.165 (J)	0.793	0.264 (J)
10/3/2016	0.287 (J)		0.086 (J)	0.103 (J)	0.114 (J)	0.769	0.276 (J)
10/4/2016		0.266 (J)					
10/26/2016	0.194 (J)	0.266 (J)	0.027 (J)	0.05 (J)	0.056 (J)	0.578	0.182 (J)
11/21/2016	0.192 (J)	0.244 (J)	0.027 (J)	0.047 (J)	0.059 (J)	0.562	0.238 (J)
1/17/2017			0.066 (J)	0.09 (J)	0.07 (J)	0.571	0.34
1/18/2017	0.223 (J)	0.385					
3/20/2017					0.18		0.39
3/21/2017						0.54	
3/22/2017	0.32	0.41	0.13	0.12			
4/17/2017						0.54	0.57
4/18/2017	0.32	0.29	0.16	0.12	0.17		
5/30/2017				0.13	0.16	0.49	0.38
5/31/2017		0.37	0.13				
8/23/2017	0.38	0.55	0.16	0.16			
8/24/2017					0.18	0.7	0.54
2/13/2018	0.38	0.27	0.22	0.14	0.15	0.63	0.57
5/22/2018			0.17	0.16			
5/23/2018	0.38						
5/24/2018		0.6					
6/11/2018						0.39	0.63
6/12/2018	0.39	0.53	0.16	0.16	0.15		
10/17/2018	0.39	0.63	0.16	0.18	0.16	0.44	0.78
11/19/2018	0.36	0.31	0.18	0.15			
4/10/2019	0.384	0.273	0.262	0.102	0.156	<0.1	0.738
5/14/2019	0.335	0.281	0.17	0.119			
10/8/2019		0.225	0.164	0.0924 (J)			
10/10/2019	0.304						
10/14/2019					0.118	<0.1	0.619
10/16/2019	0.302	0.106	0.114	0.0756 (J)			
2/3/2020	0.37	0.256	0.182	0.0982 (J)			0.427
2/4/2020					0.132	<0.1	
8/3/2020		0.0766 (J)	0.122	<0.1			
8/4/2020							0.389
8/5/2020	0.359				0.119	<0.1	
2/22/2021	0.357	0.246	0.209	0.082 (J)			
3/1/2021					0.106		0.449
3/3/2021						<0.1	
7/12/2021	0.35	0.287	0.196	0.125			
7/14/2021					0.221	<0.1	0.556
1/25/2022	0.364	0.325	0.204	0.101			
1/26/2022							0.447
1/27/2022					0.179	<0.1	

FIGURE F.

Appendix III Trend Test Summary - Significant Results

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test Summary - All Results

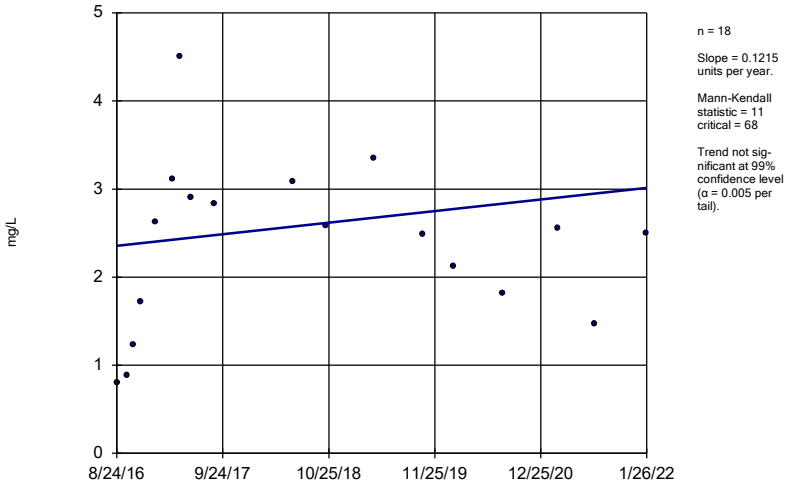
Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-GSA-MW-3	0.1215	11	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-GSA-MW-4	-0.3832	-53	-68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	**GS-GSA-MW-8**	**0.4163**	**119**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-1 (bg)	0.003819	110	111	No	25	32	n/a	n/a	0.01	NP
Boron (mg/L)	**MW-2 (bg)**	**0.003945**	**129**	**111**	**Yes**	**25**	**24**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-3 (bg)	0.002231	87	111	No	25	28	n/a	n/a	0.01	NP
Boron (mg/L)	MW-4 (bg)	-0.0003942	-28	-98	No	23	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-GSA-MW-3	-6.045	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**GS-GSA-MW-8**	**61.21**	**87**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-1 (bg)	2.531	86	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	2.037	42	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	10.56	65	111	No	25	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-4 (bg)	-6.803	-60	-105	No	24	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-GSA-MW-3	-6.058	-18	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**GS-GSA-MW-4**	**-14.3**	**-75**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**GS-GSA-MW-8**	**26.11**	**93**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-1 (bg)	-0.02423	-34	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-0.09448	-35	-111	No	25	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.09968	71	111	No	25	8	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-4 (bg)	-0.06727	-80	-105	No	24	4.167	n/a	n/a	0.01	NP
pH (pH)	GS-GSA-MW-3	-0.06414	-61	-74	No	19	0	n/a	n/a	0.01	NP
pH (pH)	**MW-1 (bg)**	**-0.01883**	**-147**	**-111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**MW-2 (bg)**	**0.039**	**127**	**111**	**Yes**	**25**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	MW-3 (bg)	0	-1	-111	No	25	0	n/a	n/a	0.01	NP
pH (pH)	MW-4 (bg)	0.008156	45	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-GSA-MW-4	9.649	25	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-1 (bg)	14.12	44	105	No	24	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	-36.24	-65	-111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-3 (bg)	110.7	99	111	No	25	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-4 (bg)**	**-137.6**	**-125**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	GS-GSA-MW-4	5.547	17	68	No	18	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-1 (bg)**	**56.43**	**113**	**105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total dissolved solids (mg/L)	MW-2 (bg)	-28.02	-47	-111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	MW-3 (bg)	192.9	99	111	No	25	0	n/a	n/a	0.01	NP
Total dissolved solids (mg/L)	**MW-4 (bg)**	**-177.4**	**-123**	**-105**	**Yes**	**24**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-3



n = 18

Slope = 0.1215 units per year.

Mann-Kendall statistic = 11 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

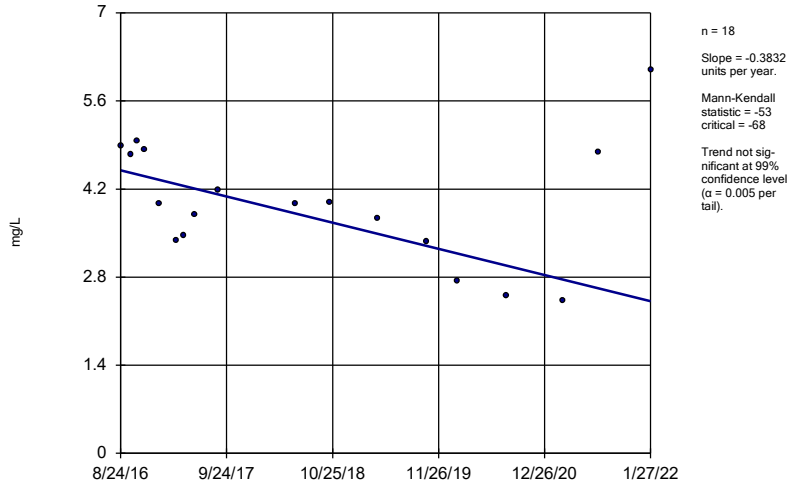
Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = -0.3832 units per year.

Mann-Kendall statistic = -53 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

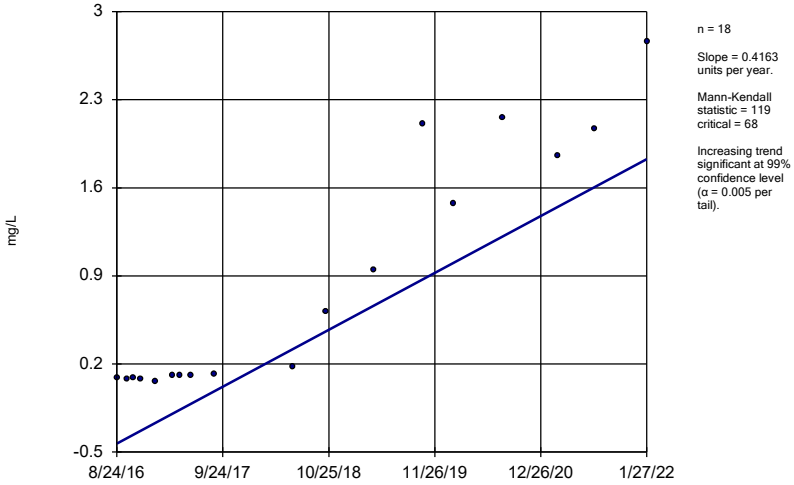
Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-8



n = 18

Slope = 0.4163 units per year.

Mann-Kendall statistic = 119 critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

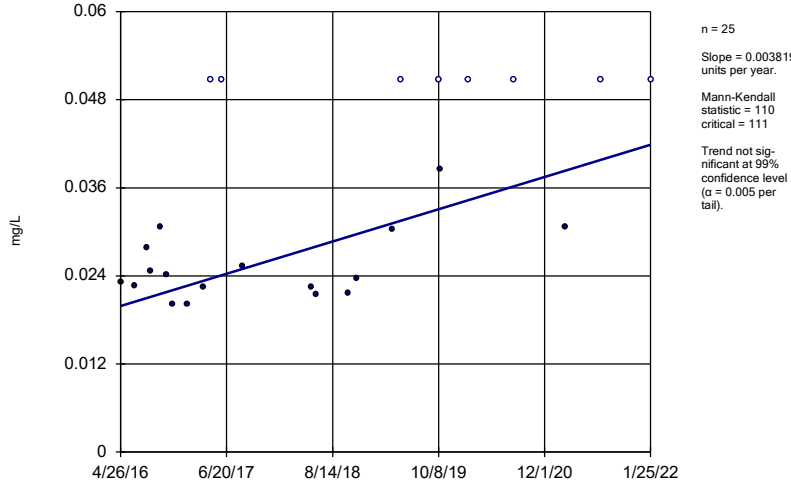
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = 0.003819 units per year.

Mann-Kendall statistic = 110 critical = 111

Trend not significant at 99% confidence level (α = 0.005 per tail).

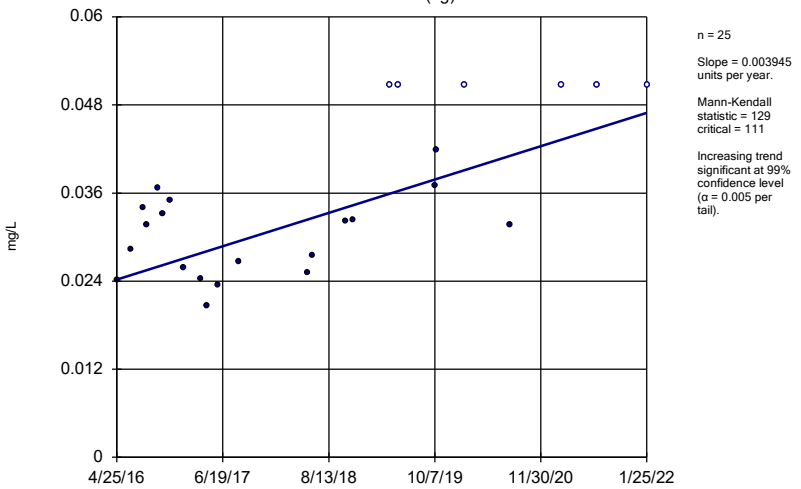
Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = 0.003945 units per year.

Mann-Kendall statistic = 129
critical = 111

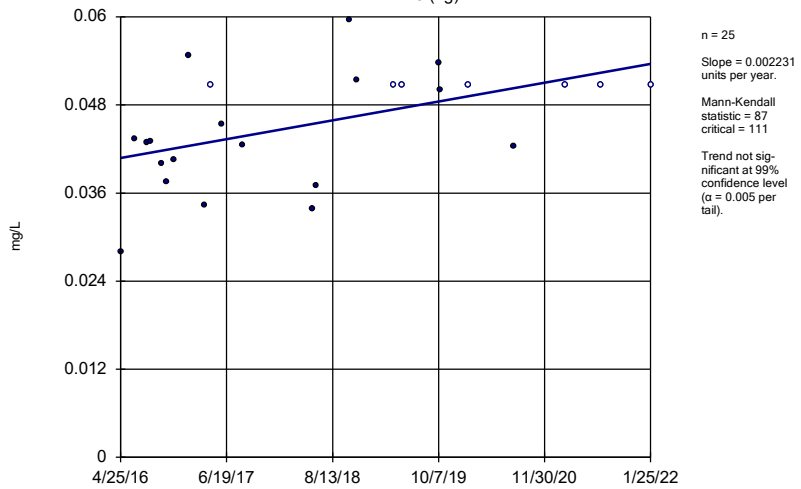
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 0.002231 units per year.

Mann-Kendall statistic = 87
critical = 111

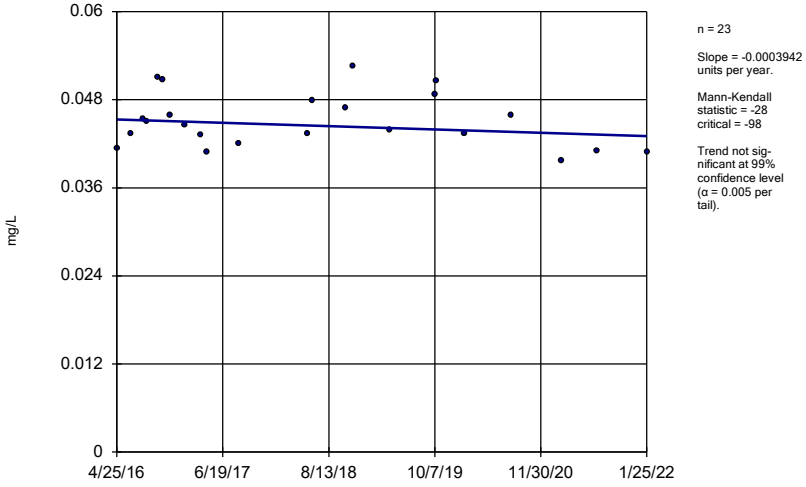
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 23

Slope = -0.0003942 units per year.

Mann-Kendall statistic = -28
critical = -98

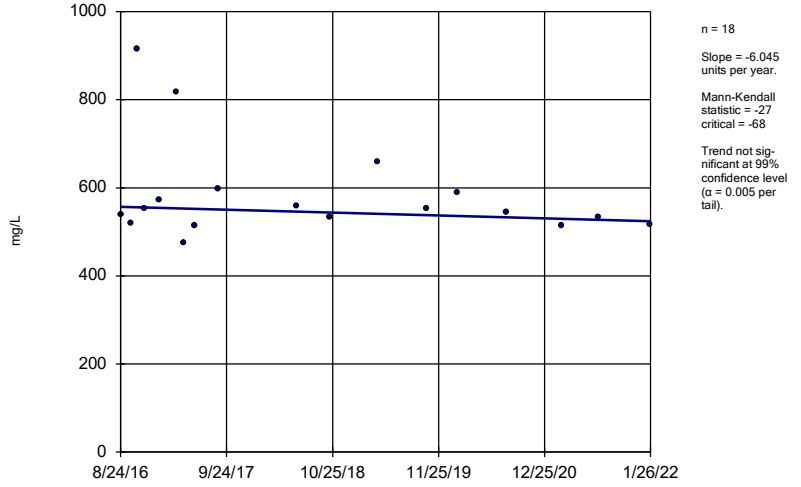
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-3



n = 18

Slope = -6.045 units per year.

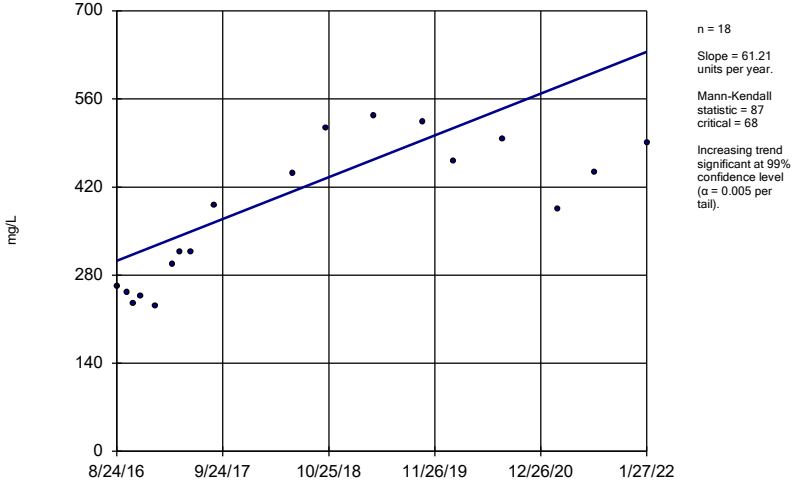
Mann-Kendall statistic = -27
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sen's Slope Estimator

GS-GSA-MW-8



n = 18

Slope = 61.21 units per year.

Mann-Kendall statistic = 87
critical = 68

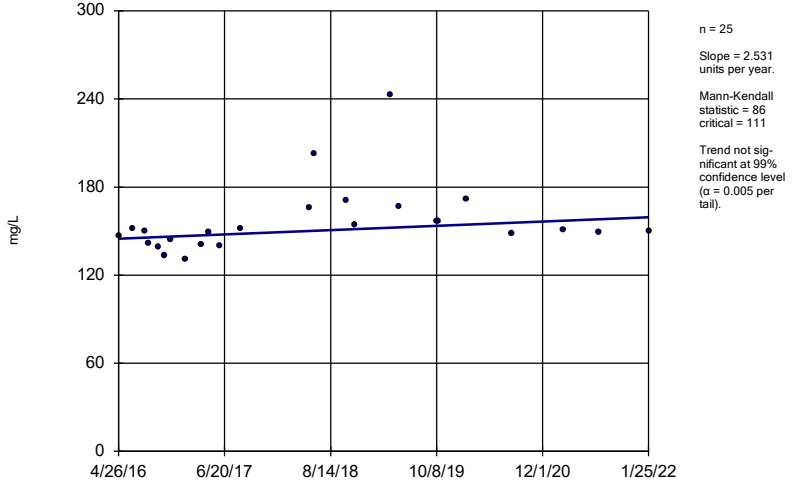
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = 2.531 units per year.

Mann-Kendall statistic = 86
critical = 111

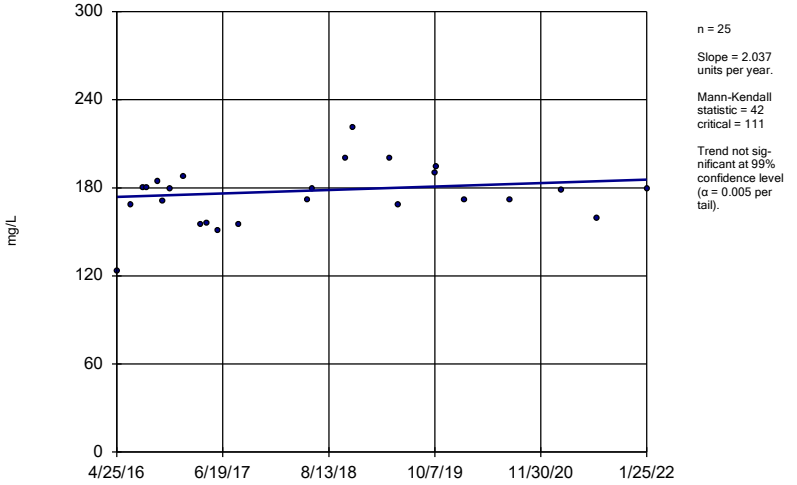
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = 2.037 units per year.

Mann-Kendall statistic = 42
critical = 111

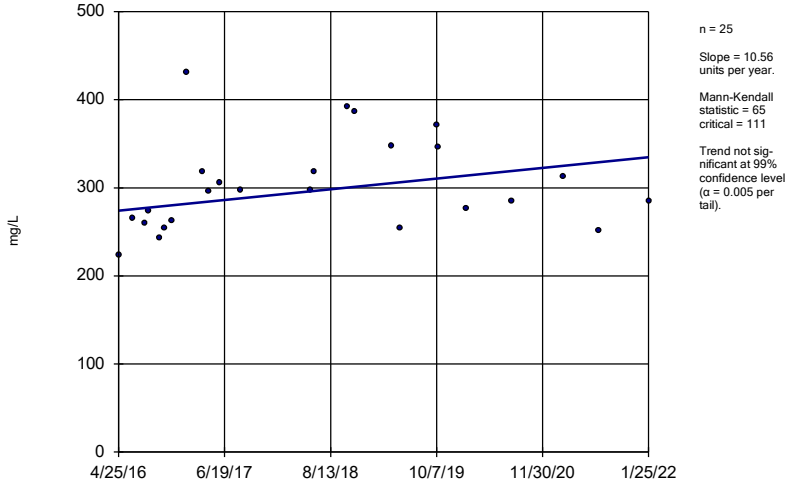
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 10.56 units per year.

Mann-Kendall statistic = 65
critical = 111

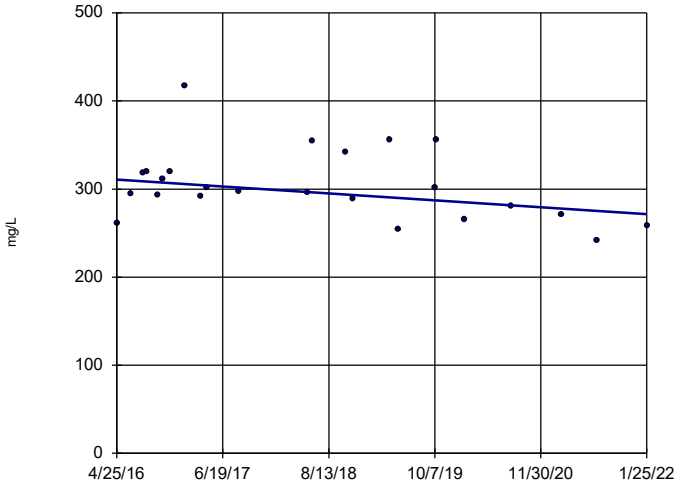
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -6.803 units per year.

Mann-Kendall statistic = -60
critical = -105

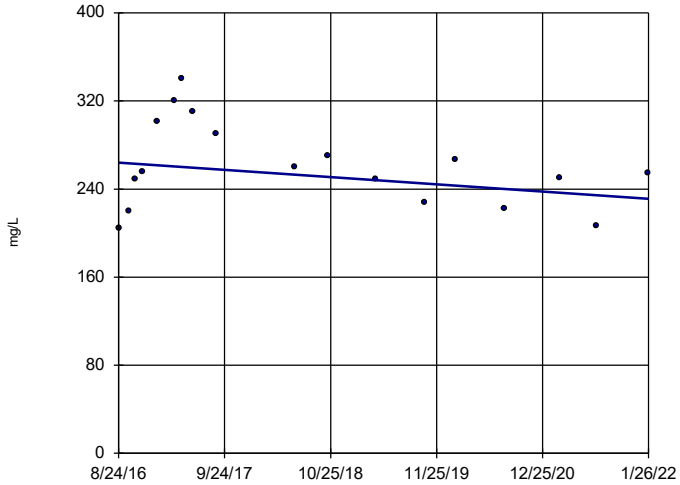
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-3



n = 18

Slope = -6.058 units per year.

Mann-Kendall statistic = -18
critical = -68

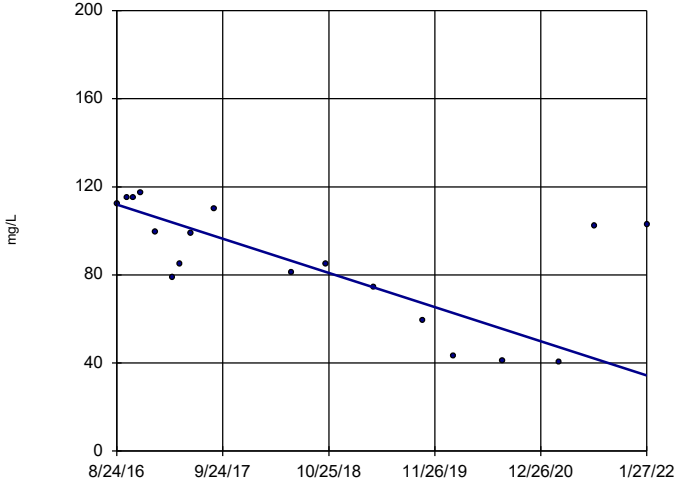
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = -14.3 units per year.

Mann-Kendall statistic = -75
critical = -68

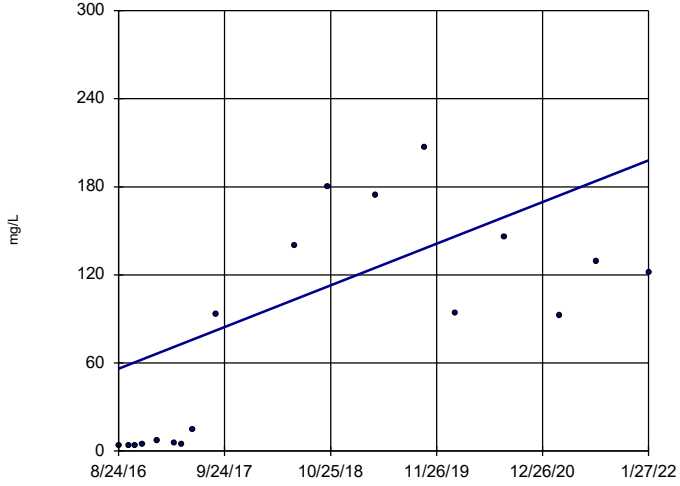
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-8



n = 18

Slope = 26.11 units per year.

Mann-Kendall statistic = 93
critical = 68

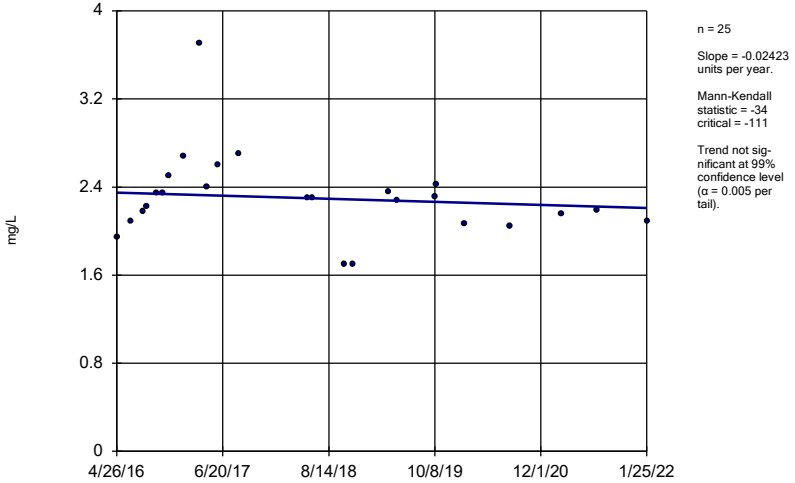
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = -0.02423 units per year.

Mann-Kendall statistic = -34
critical = -111

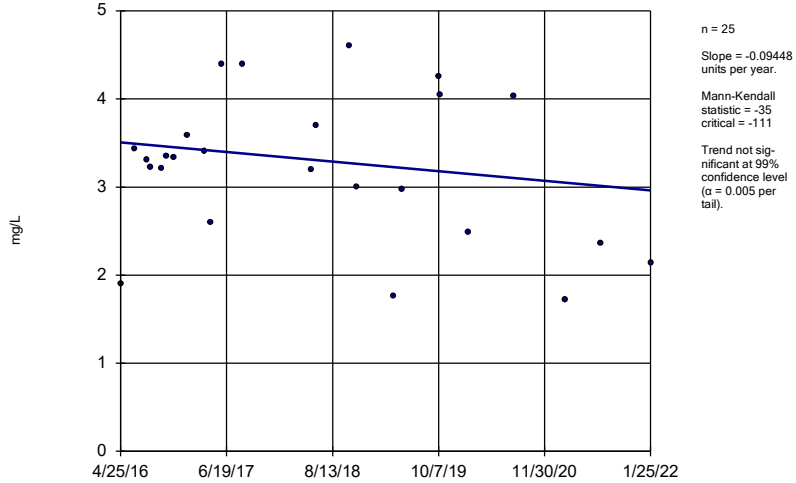
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:18 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = -0.09448 units per year.

Mann-Kendall statistic = -35
critical = -111

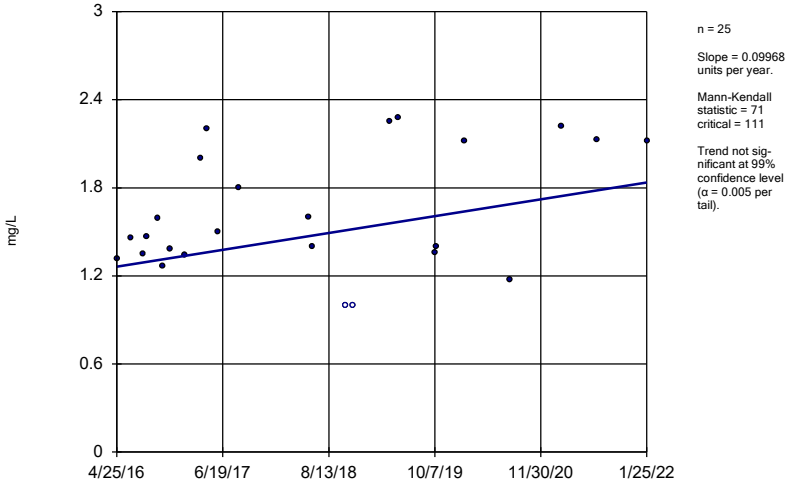
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 0.09968 units per year.

Mann-Kendall statistic = 71
critical = 111

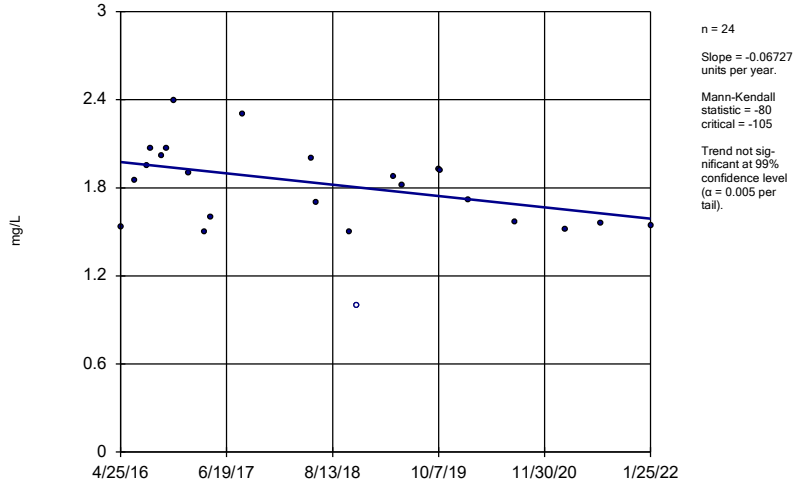
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -0.06727 units per year.

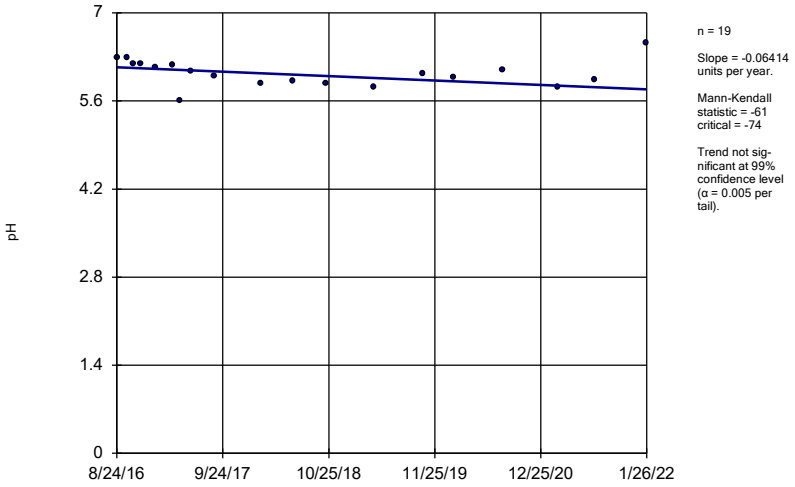
Mann-Kendall statistic = -80
critical = -105

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sen's Slope Estimator

GS-GSA-MW-3



n = 19

Slope = -0.06414 units per year.

Mann-Kendall statistic = -61
critical = -74

Trend not significant at 99% confidence level (α = 0.005 per tail).

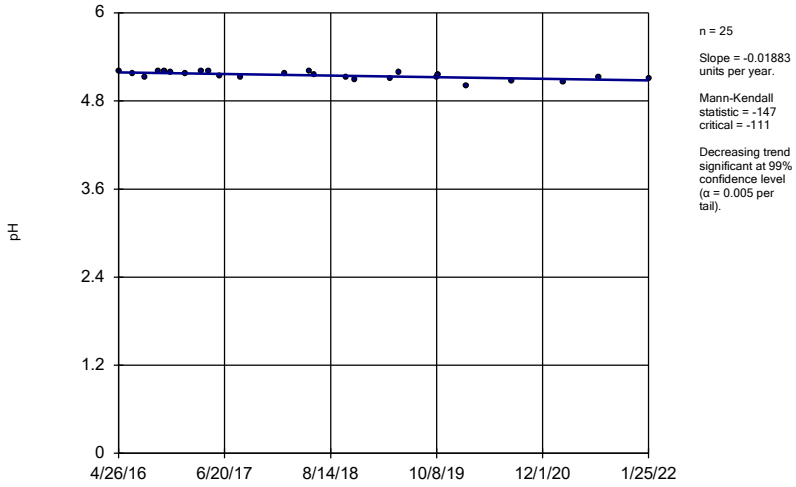
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 25

Slope = -0.01883 units per year.

Mann-Kendall statistic = -147
critical = -111

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

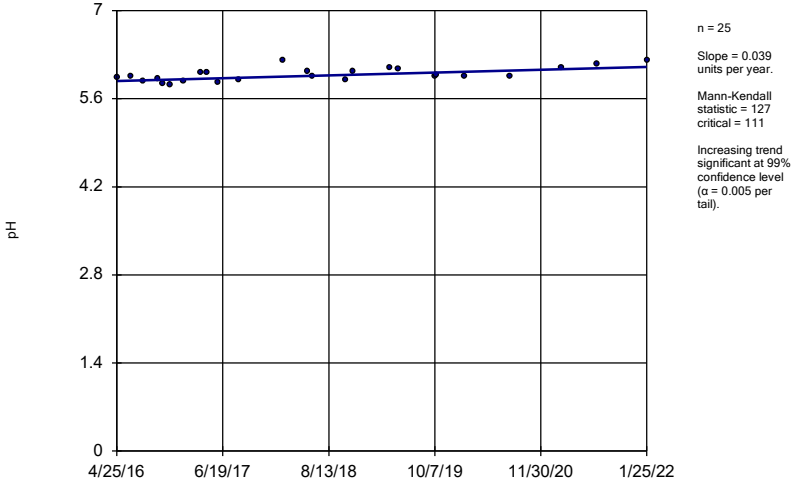
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = 0.039 units per year.

Mann-Kendall statistic = 127
critical = 111

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

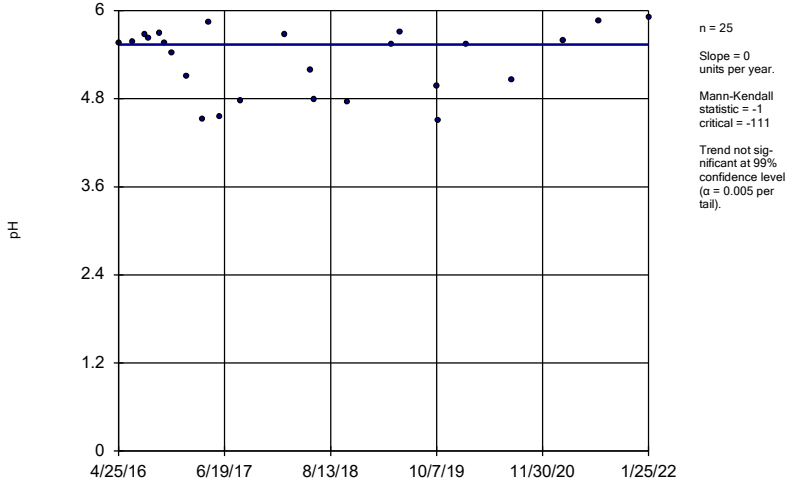
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -111

Trend not significant at 99% confidence level (α = 0.005 per tail).

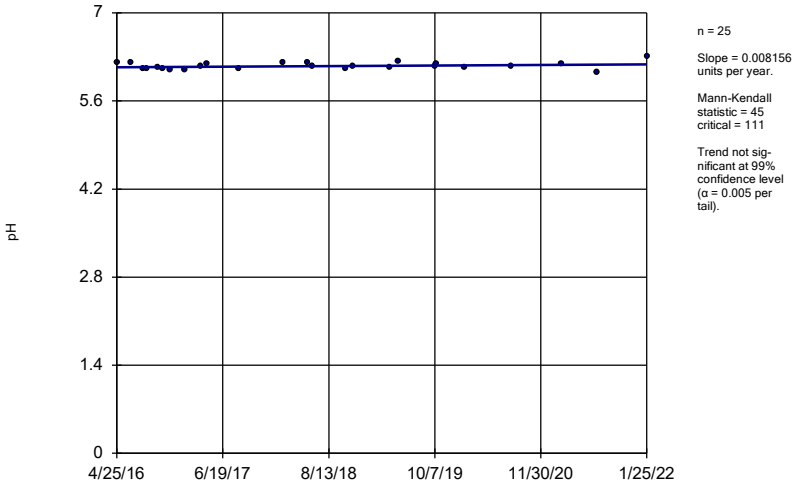
Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 25

Slope = 0.008156 units per year.

Mann-Kendall statistic = 45
critical = 111

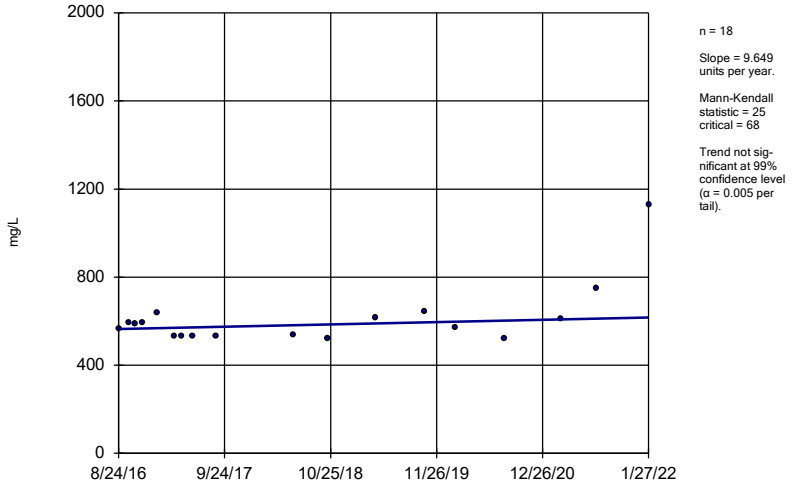
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = 9.649 units per year.

Mann-Kendall statistic = 25
critical = 68

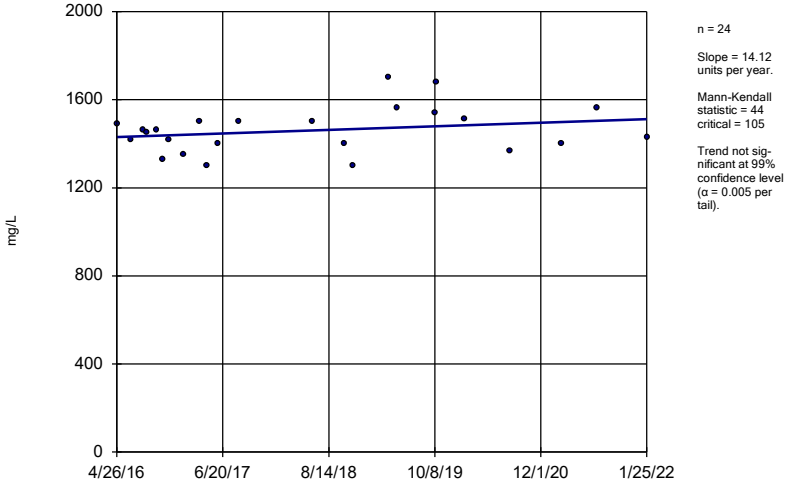
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 24

Slope = 14.12 units per year.

Mann-Kendall statistic = 44
critical = 105

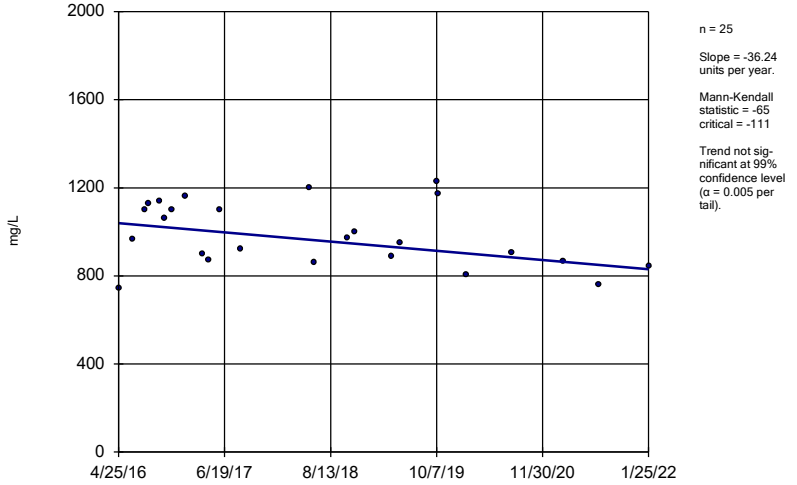
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = -36.24 units per year.

Mann-Kendall statistic = -65
critical = -111

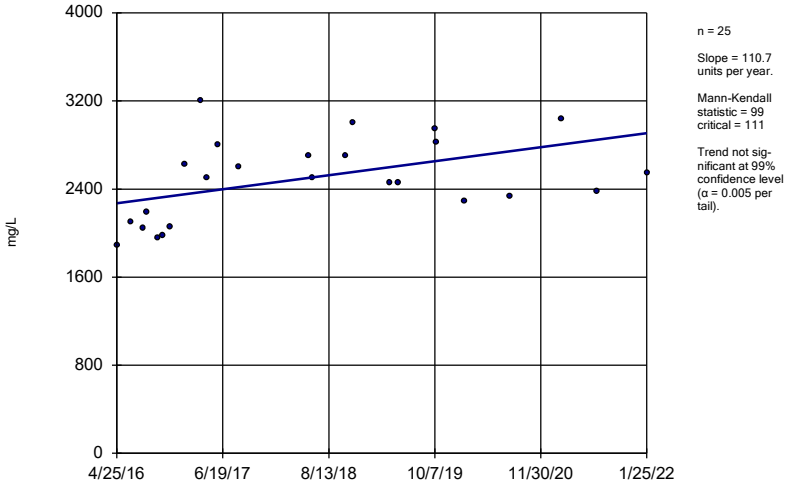
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 110.7 units per year.

Mann-Kendall statistic = 99
critical = 111

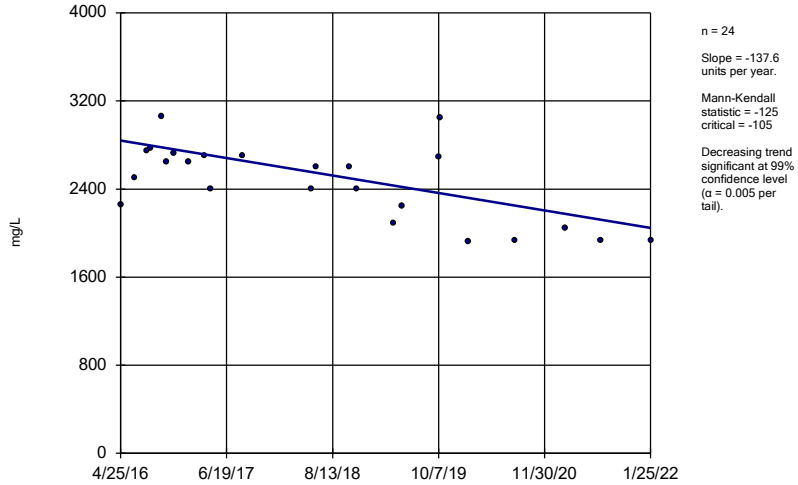
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -137.6 units per year.

Mann-Kendall statistic = -125
critical = -105

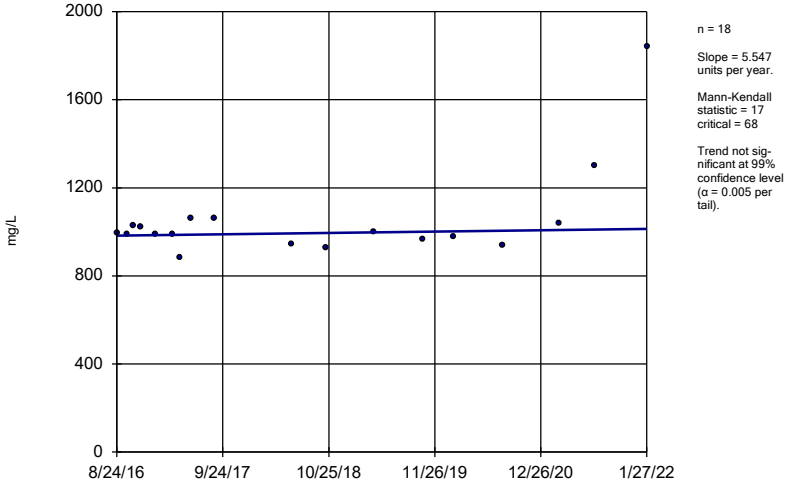
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

GS-GSA-MW-4



n = 18

Slope = 5.547 units per year.

Mann-Kendall statistic = 17
critical = 68

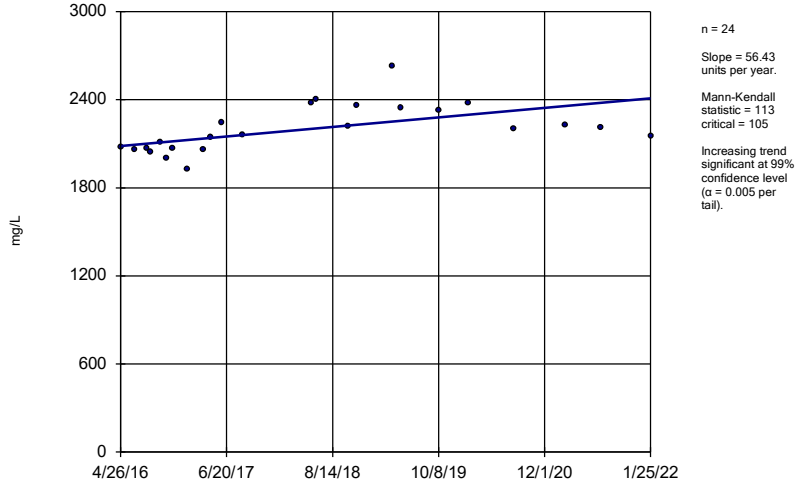
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-1 (bg)



n = 24

Slope = 56.43 units per year.

Mann-Kendall statistic = 113
critical = 105

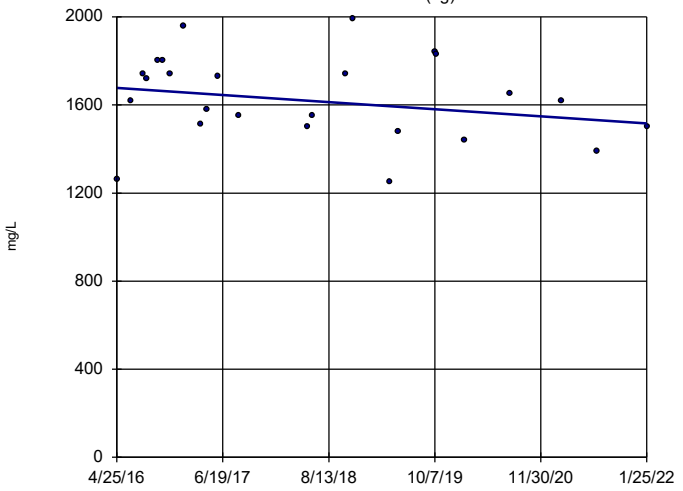
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-2 (bg)



n = 25

Slope = -28.02 units per year.

Mann-Kendall statistic = -47 critical = -111

Trend not significant at 99% confidence level (α = 0.005 per tail).

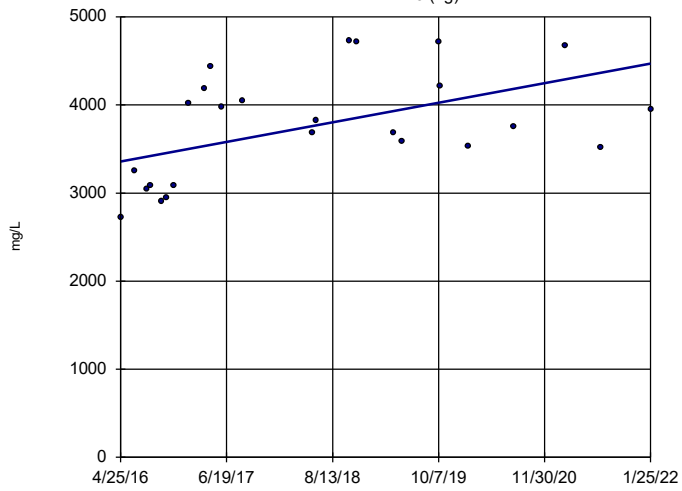
Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-3 (bg)



n = 25

Slope = 192.9 units per year.

Mann-Kendall statistic = 99 critical = 111

Trend not significant at 99% confidence level (α = 0.005 per tail).

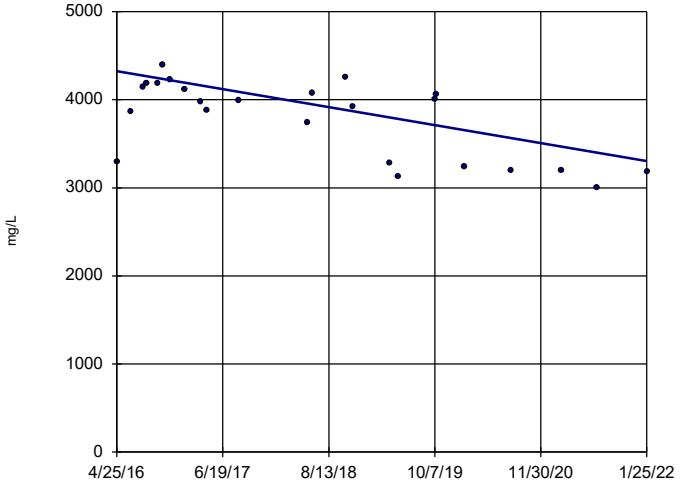
Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Sen's Slope Estimator

MW-4 (bg)



n = 24

Slope = -177.4 units per year.

Mann-Kendall statistic = -123 critical = -105

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total dissolved solids Analysis Run 5/11/2022 6:19 PM View: Appendix III - Trend Test

Plant Gorgas Client: Southern Company Data: Gorgas GSA

FIGURE G.

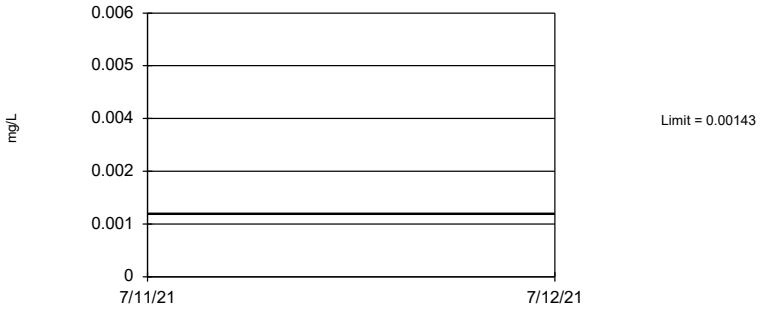
Upper Tolerance Limits Summary Table

Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 11/16/2021, 4:56 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.00143	n/a	n/a	n/a	95	n/a	n/a	93.68	n/a	n/a	0.007651	NP Inter
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	95	n/a	n/a	83.16	n/a	n/a	0.007651	NP Inter
Barium (mg/L)	n/a	0.0166	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Beryllium (mg/L)	n/a	0.0121	n/a	n/a	n/a	93	n/a	n/a	83.87	n/a	n/a	0.008478	NP Inter
Cadmium (mg/L)	n/a	0.00652	n/a	n/a	n/a	94	n/a	n/a	44.68	n/a	n/a	0.008054	NP Inter
Chromium (mg/L)	n/a	0.0105	n/a	n/a	n/a	95	n/a	n/a	89.47	n/a	n/a	0.007651	NP Inter
Cobalt (mg/L)	n/a	0.64	n/a	n/a	n/a	93	n/a	n/a	24.73	n/a	n/a	0.008478	NP Inter
Combined Radium 226 + 228 (pCi/L)	n/a	1.47	n/a	n/a	n/a	81	n/a	n/a	0	n/a	n/a	0.01569	NP Inter
Fluoride (mg/L)	n/a	0.63	n/a	n/a	n/a	99	n/a	n/a	1.01	n/a	n/a	0.006232	NP Inter
Lead (mg/L)	n/a	0.002	n/a	n/a	n/a	94	n/a	n/a	94.68	n/a	n/a	0.008054	NP Inter
Lithium (mg/L)	n/a	0.419	n/a	n/a	n/a	95	n/a	n/a	0	n/a	n/a	0.007651	NP Inter
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	95	n/a	n/a	100	n/a	n/a	0.007651	NP Inter
Molybdenum (mg/L)	n/a	0.0002	n/a	n/a	n/a	95	n/a	n/a	97.89	n/a	n/a	0.007651	NP Inter
Selenium (mg/L)	n/a	0.0209	n/a	n/a	n/a	95	n/a	n/a	58.95	n/a	n/a	0.007651	NP Inter
Thallium (mg/L)	n/a	0.000226	n/a	n/a	n/a	95	n/a	n/a	96.84	n/a	n/a	0.007651	NP Inter

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 93.68% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Antimony Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

NP test selected by user. Limit is highest of 95 background values. 83.16% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

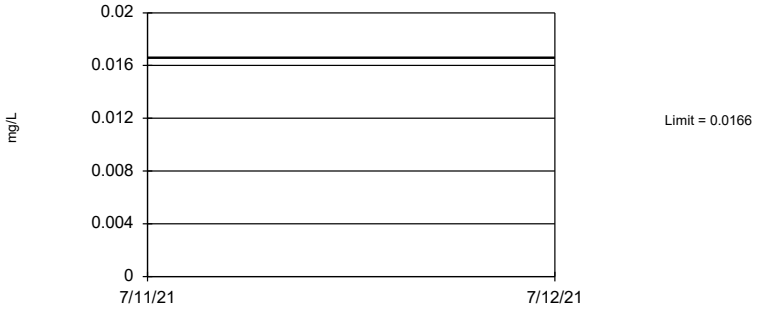
Constituent: Arsenic Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Barium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric

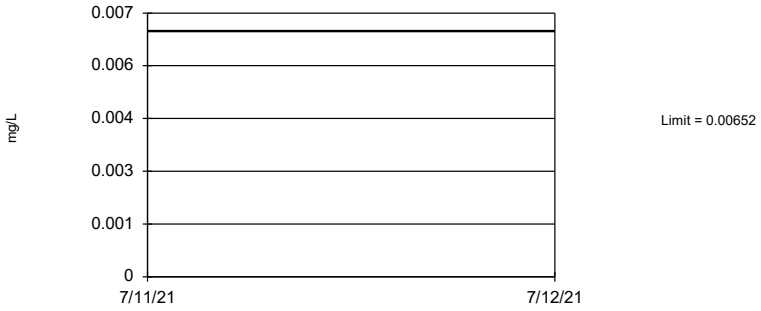
NP test selected by user. Limit is highest of 93 background values. 83.87% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008478.

Constituent: Beryllium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 94 background values. 44.68% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008054.

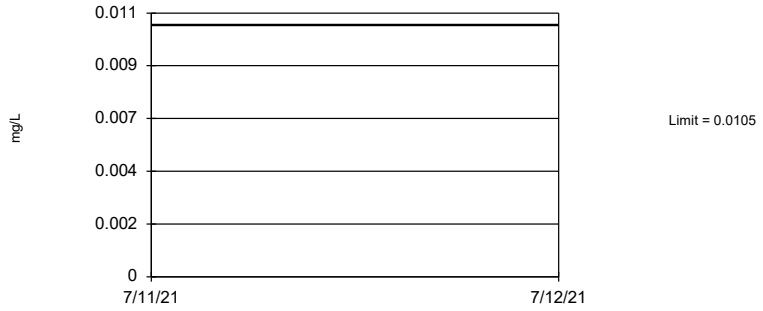
Constituent: Cadmium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 89.47% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

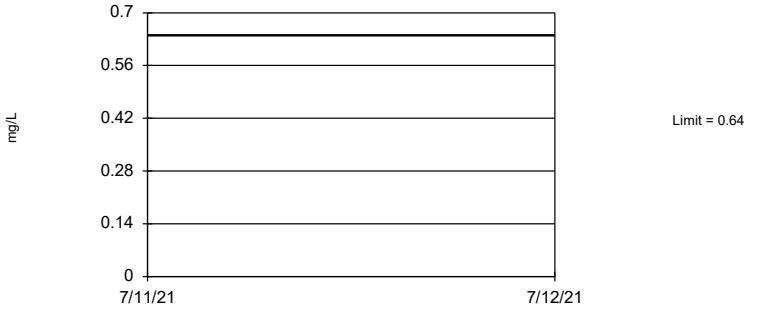
Constituent: Chromium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 93 background values. 24.73% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008478.

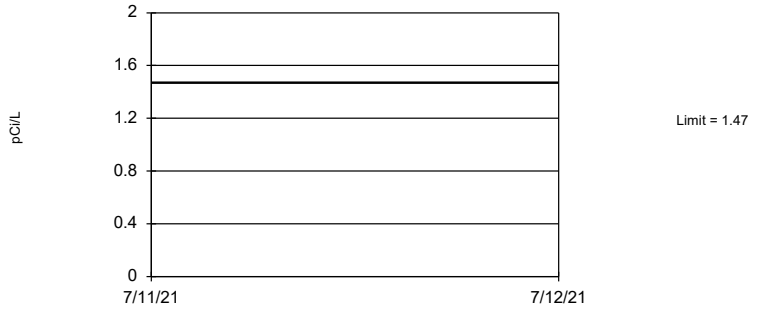
Constituent: Cobalt Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.31 Groundwater Stats Consulting. UG

Tolerance Limit

Interwell Non-parametric



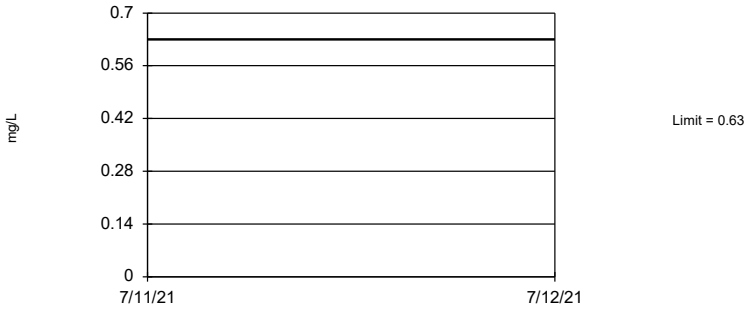
NP test selected by user. Limit is highest of 81 background values. 94.34% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01569.

Constituent: Combined Radium 226 + 228 Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



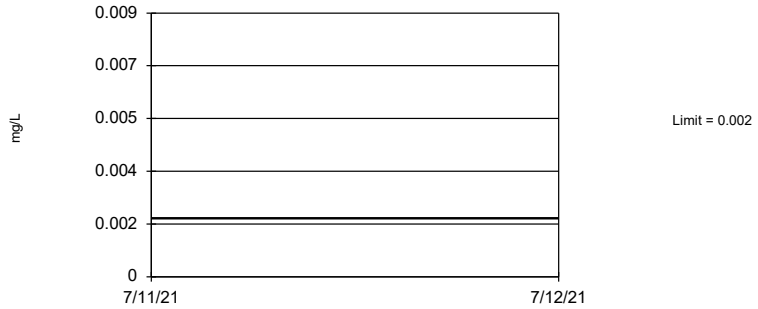
NP test selected by user. Limit is highest of 99 background values. 1.01% NDs. 95.51% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.006232.

Constituent: Fluoride Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



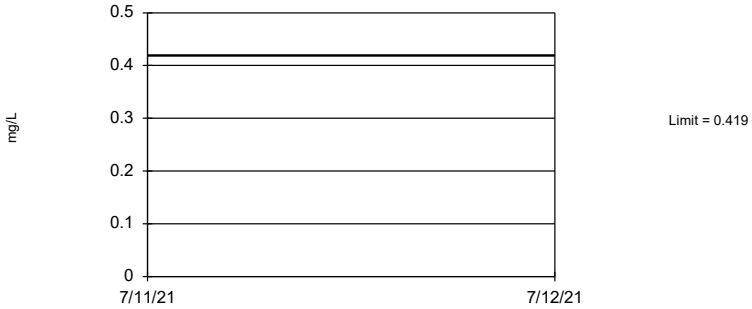
NP test selected by user. Limit is highest of 94 background values. 94.68% NDs. 95.12% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.008054.

Constituent: Lead Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



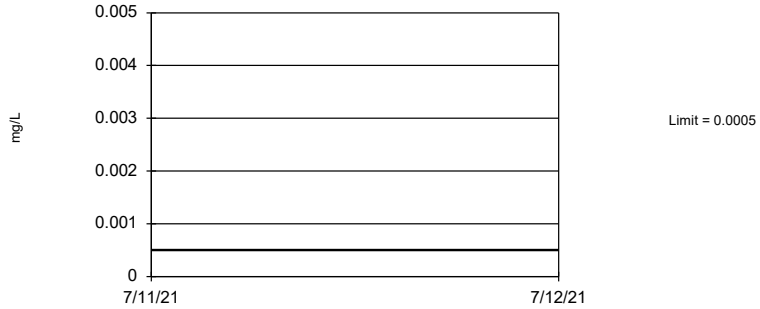
NP test selected by user. Limit is highest of 95 background values. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Lithium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



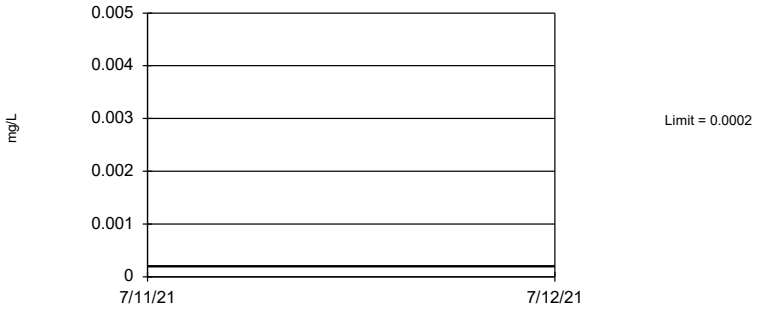
NP test selected by user. All background values were censored; limit is most recent reporting limit. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Mercury Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



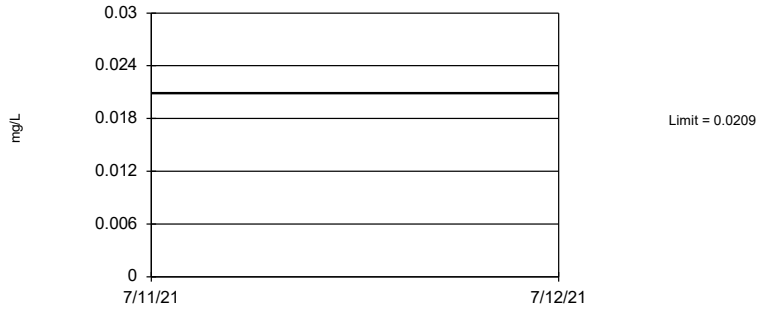
NP test selected by user. Limit is highest of 95 background values. 97.89% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Molybdenum Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



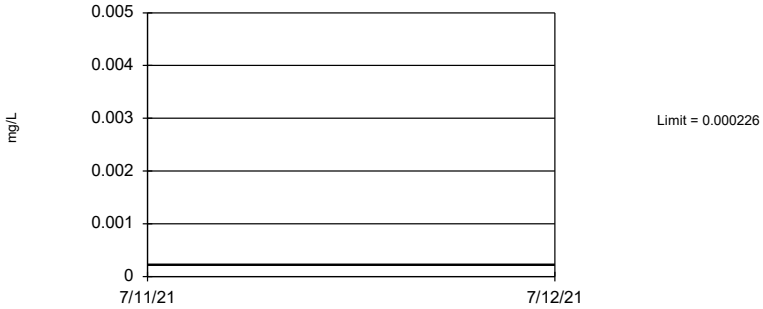
NP test selected by user. Limit is highest of 95 background values. 58.95% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Selenium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

Tolerance Limit

Interwell Non-parametric



NP test selected by user. Limit is highest of 95 background values. 96.84% NDs. 95.12% coverage at alpha=0.01; 97.07% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.007651.

Constituent: Thallium Analysis Run 11/16/2021 4:55 PM View: UTLs

Plant Gorgas Client: Southern Company Data: Gorgas GSA

FIGURE H.

GORGAS GYPSUM POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.00143	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.0166	2
Beryllium	mg/L	0.0121	0.004
Cadmium	mg/L	0.00652	0.005
Chromium	mg/L	0.0105	0.1
Cobalt	mg/L	0.64	0.64
Combined Radium-226/228	pCi/L	1.47	5
Fluoride	mg/L	0.63	4
Lead	mg/L	0.00692	0.015
Lithium	mg/L	0.419	0.419
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.0181	0.05
Thallium	mg/L	0.000226	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 I.

Confidence Interval Summary Table - All Results (No Significant)

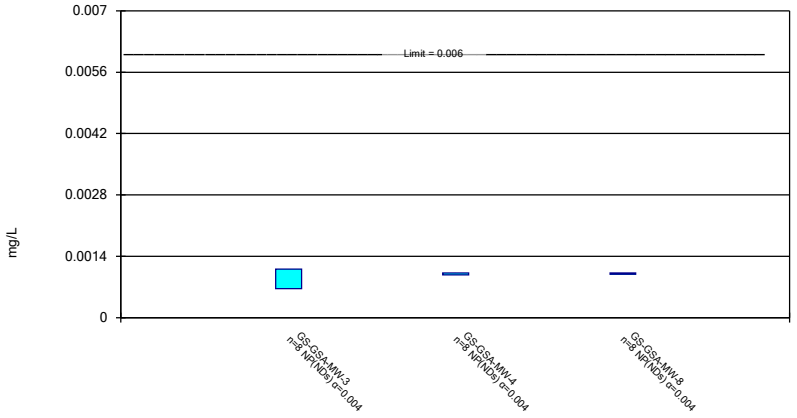
Plant Gorgas Client: Southern Company Data: Gorgas GSA Printed 5/11/2022, 6:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-GSA-MW-3	0.00111	0.00066	0.006	No	8	0.0001355	75	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-4	0.00102	0.000976	0.006	No	8	0.00001556	87.5	No	0.004	NP (NDs)
Antimony (mg/L)	GS-GSA-MW-8	0.00102	0.00102	0.006	No	8	1.2e-11	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	GS-GSA-MW-3	0.005	0.00057	0.01	No	8	0.002081	50	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-4	0.005	0.00115	0.01	No	8	0.001323	12.5	No	0.004	NP (normality)
Arsenic (mg/L)	GS-GSA-MW-8	0.005	0.00024	0.01	No	8	0.002393	62.5	No	0.004	NP (NDs)
Barium (mg/L)	GS-GSA-MW-3	0.01522	0.01286	2	No	8	0.001115	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-4	0.01418	0.01174	2	No	8	0.001149	0	No	0.01	Param.
Barium (mg/L)	GS-GSA-MW-8	0.0235	0.02	2	No	8	0.001653	0	No	0.01	Param.
Beryllium (mg/L)	GS-GSA-MW-3	0.00345	0.00141	0.004	No	8	0.0006843	0	No	0.004	NP (normality)
Beryllium (mg/L)	GS-GSA-MW-4	0.00768	0.00369	0.004	No	8	0.001358	0	No	0.004	NP (normality)
Cadmium (mg/L)	GS-GSA-MW-4	0.00336	0.00143	0.005	No	8	0.0006563	0	No	0.004	NP (normality)
Chromium (mg/L)	GS-GSA-MW-3	0.01	0.000386	0.1	No	8	0.004959	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-4	0.01	0.000567	0.1	No	8	0.004774	62.5	No	0.004	NP (NDs)
Chromium (mg/L)	GS-GSA-MW-8	0.01	0.0003	0.1	No	8	0.004972	62.5	No	0.004	NP (NDs)
Cobalt (mg/L)	GS-GSA-MW-3	0.136	0.06788	0.64	No	8	0.03212	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-4	0.3289	0.1716	0.64	No	8	0.07419	0	No	0.01	Param.
Cobalt (mg/L)	GS-GSA-MW-8	0.00546	0.00026	0.64	No	8	0.002143	62.5	No	0.004	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-3	0.6243	0.2672	5	No	8	0.1726	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-4	1.168	0.277	5	No	8	0.4204	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-GSA-MW-8	1.021	-0.01234	5	No	8	0.4876	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-3	0.7083	0.393	4	No	8	0.1488	0	No	0.01	Param.
Fluoride (mg/L)	GS-GSA-MW-4	0.44	0.05	4	No	8	0.1379	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	GS-GSA-MW-8	0.1894	0.1083	4	No	8	0.03827	0	No	0.01	Param.
Lead (mg/L)	GS-GSA-MW-3	0.0002	0.00014	0.015	No	8	0.00002378	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-4	0.00103	0.0002	0.015	No	8	0.0003351	62.5	No	0.004	NP (NDs)
Lead (mg/L)	GS-GSA-MW-8	0.0002	0.000145	0.015	No	8	0.00002434	75	No	0.004	NP (NDs)
Lithium (mg/L)	GS-GSA-MW-3	0.4994	0.3666	0.419	No	8	0.06719	0	x^2	0.01	Param.
Lithium (mg/L)	GS-GSA-MW-4	0.671	0.262	0.419	No	8	0.1473	0	No	0.004	NP (normality)
Lithium (mg/L)	GS-GSA-MW-8	0.2131	0.1702	0.419	No	8	0.02023	0	No	0.01	Param.
Molybdenum (mg/L)	GS-GSA-MW-3	0.01	0.00022	0.1	No	8	0.005055	62.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	GS-GSA-MW-8	0.01	0.00012	0.1	No	8	0.004722	62.5	No	0.004	NP (NDs)
Selenium (mg/L)	GS-GSA-MW-3	0.01	0.00117	0.05	No	8	0.004498	50	No	0.004	NP (normality)
Selenium (mg/L)	GS-GSA-MW-4	0.01	0.00294	0.05	No	8	0.003295	37.5	No	0.004	NP (normality)
Thallium (mg/L)	GS-GSA-MW-4	0.001	0.00009	0.002	No	8	0.0004436	50	No	0.004	NP (normality)

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

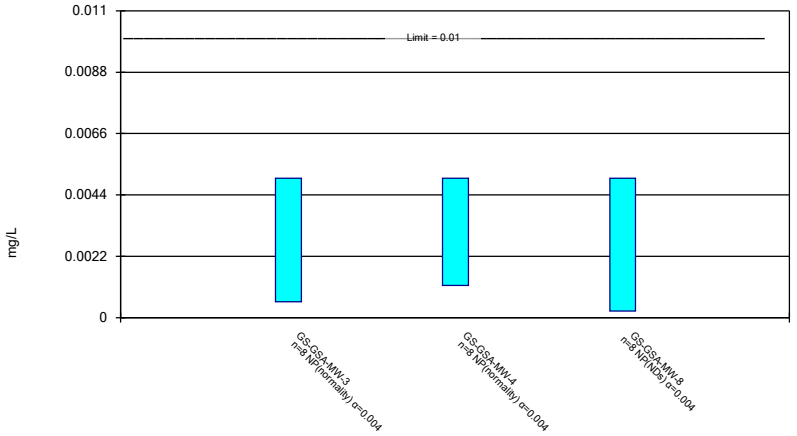


Constituent: Antimony Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

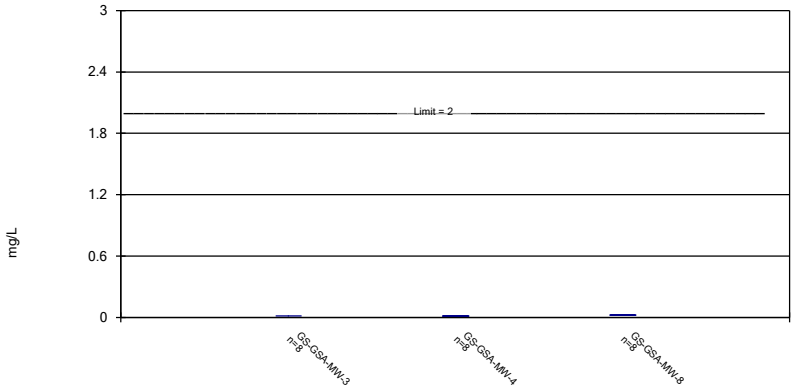


Constituent: Arsenic Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

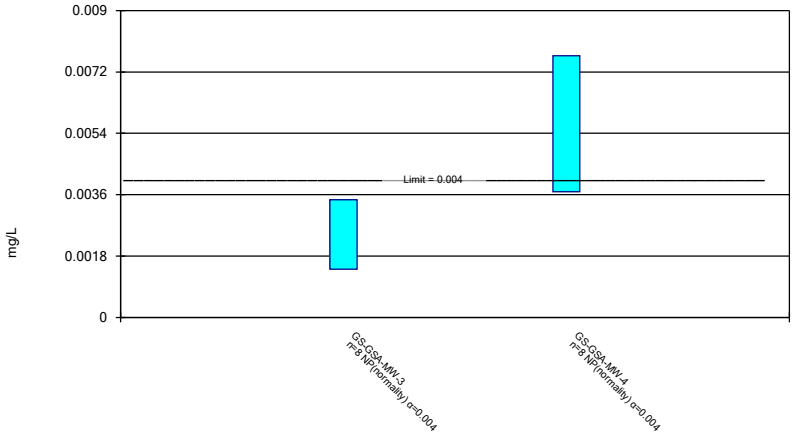


Constituent: Barium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

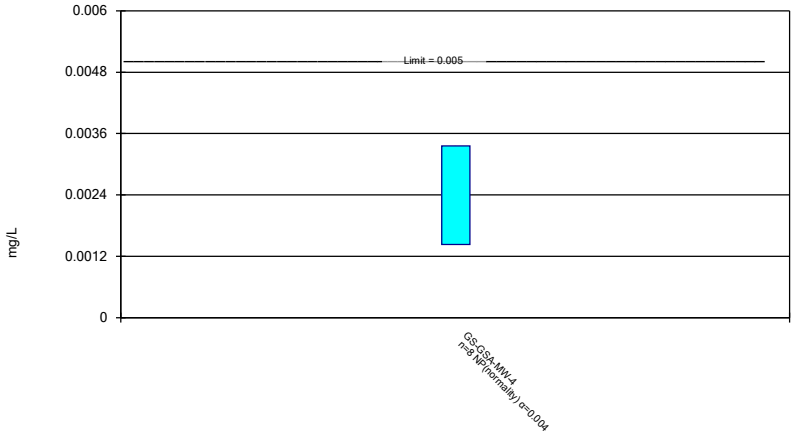


Constituent: Beryllium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

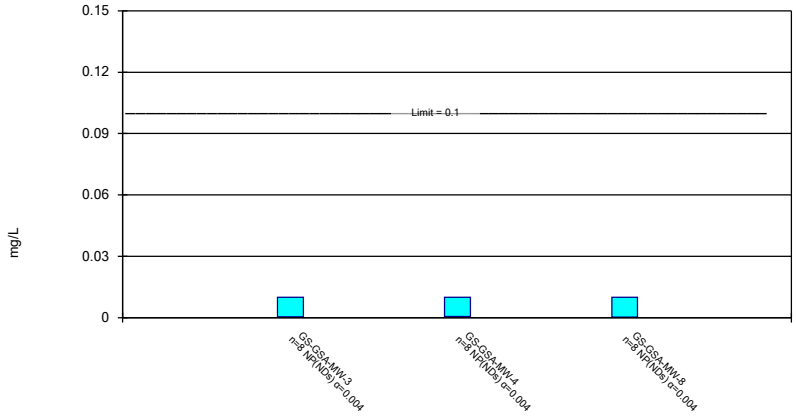


Constituent: Cadmium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

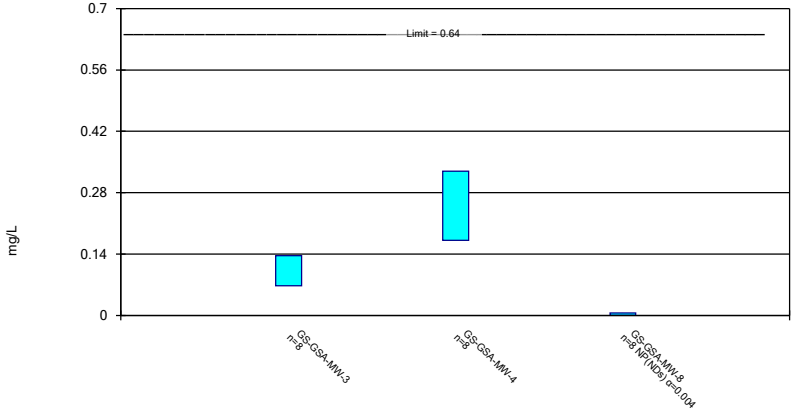


Constituent: Chromium Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

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.

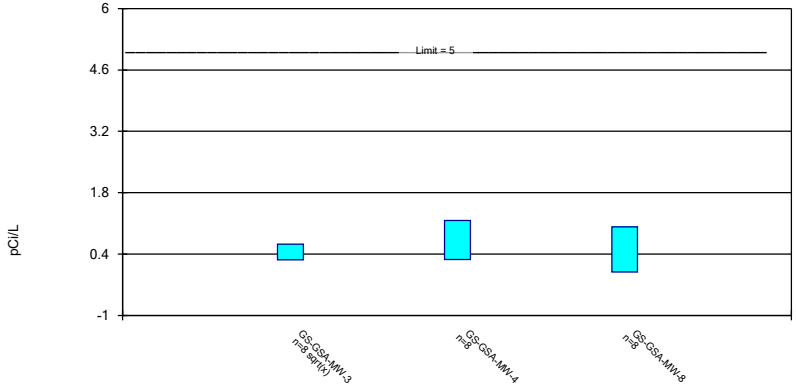


Constituent: Cobalt Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

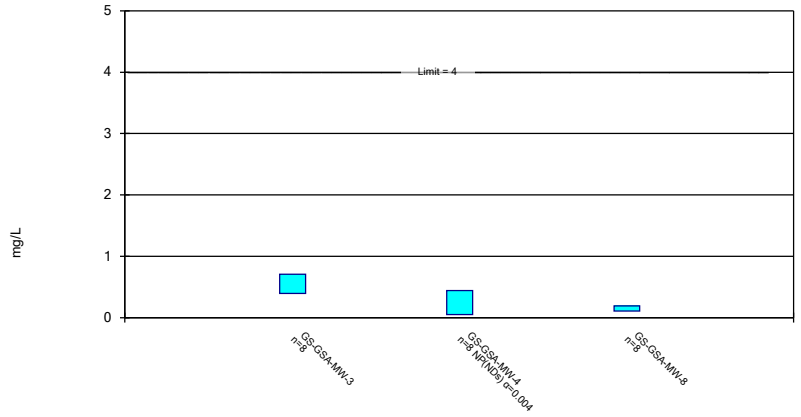


Constituent: Combined Radium 226 + 228 Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

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.

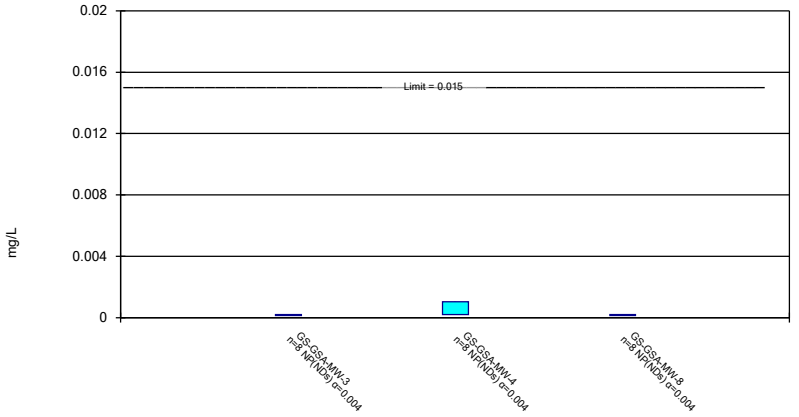


Constituent: Fluoride Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

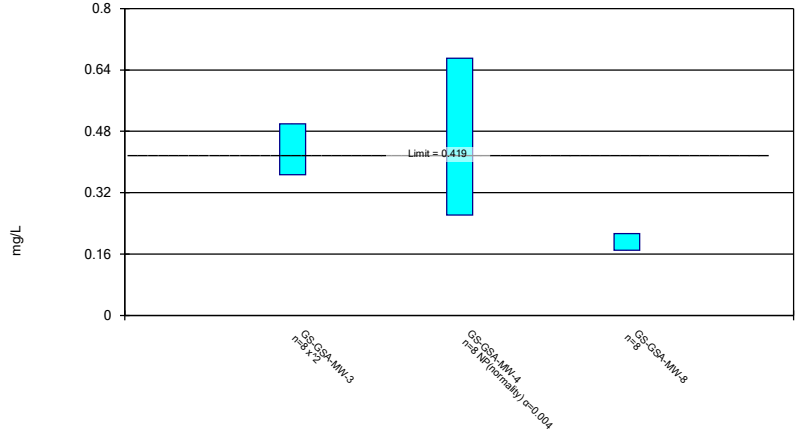


Constituent: Lead Analysis Run 5/11/2022 6:37 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

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.

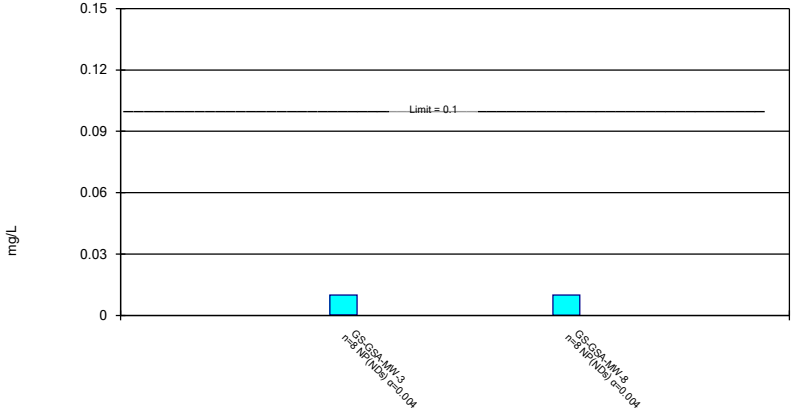


Constituent: Lithium Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

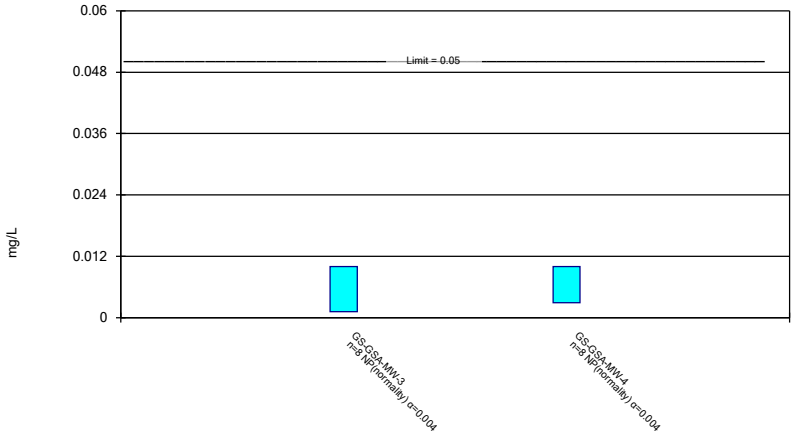
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

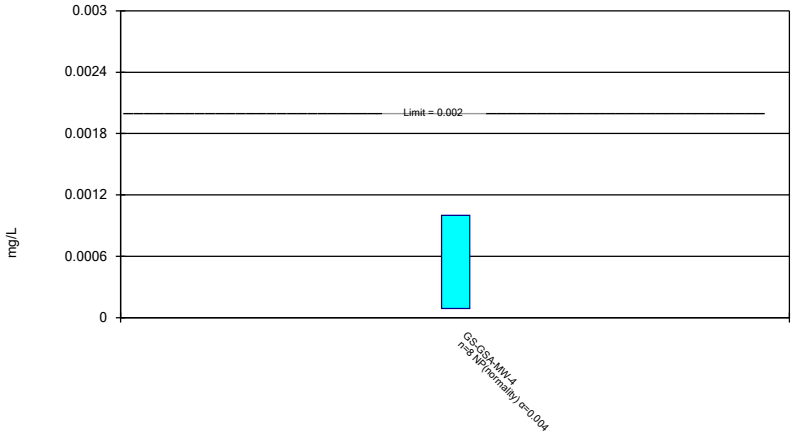


Constituent: Selenium Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Sanitas™ v.9.6.33 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 5/11/2022 6:38 PM View: Appendix IV
Plant Gorgas Client: Southern Company Data: Gorgas GSA

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.00102	<0.00102	<0.00102
4/10/2019	0.00111 (J)	0.000976 (J)	0.00102 (J)
10/14/2019	<0.00102	<0.00102	<0.00102
2/3/2020	<0.00102		
2/4/2020		<0.00102	<0.00102
8/4/2020	<0.00102		
8/5/2020		<0.00102	<0.00102
3/1/2021	<0.00102		<0.00102
3/3/2021		<0.00102	
7/14/2021	<0.00102	<0.00102	<0.00102
1/26/2022	0.00066 (J)		
1/27/2022		<0.00102	<0.00102
Mean	0.0009862	0.001014	0.00102
Std. Dev.	0.0001355	1.556E-05	1.2E-11
Upper Lim.	0.00111	0.00102	0.00102
Lower Lim.	0.00066	0.000976	0.00102

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.005	<0.005	<0.005
4/10/2019	0.00121 (J)	0.00176 (J)	<0.005
10/14/2019	<0.005	0.0012 (J)	<0.005
2/3/2020	<0.005		
2/4/2020		0.00128 (J)	<0.005
8/4/2020	<0.005		
8/5/2020		0.00115 (J)	<0.005
3/1/2021	0.0014		0.000633
3/3/2021		0.00116	
7/14/2021	0.00057	0.00174	0.00024
1/26/2022	0.00136		
1/27/2022		0.00274	0.00027
Mean	0.003067	0.002004	0.003268
Std. Dev.	0.002081	0.001323	0.002393
Upper Lim.	0.005	0.005	0.005
Lower Lim.	0.00057	0.00115	0.00024

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.013	0.0125	0.0236
4/10/2019	0.0153	0.0136	0.02
10/14/2019	0.0122	0.0147	0.0215
2/3/2020	0.0141		
2/4/2020		0.0124	0.0209
8/4/2020	0.0139		
8/5/2020		0.0142	0.0216
3/1/2021	0.0154		0.0194
3/3/2021		0.0117	
7/14/2021	0.0136	0.0115	0.0232
1/26/2022	0.0148		
1/27/2022		0.0131	0.0238
Mean	0.01404	0.01296	0.02175
Std. Dev.	0.001115	0.001149	0.001653
Upper Lim.	0.01522	0.01418	0.0235
Lower Lim.	0.01286	0.01174	0.02

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4
10/17/2018	0.00345	0.00369
4/10/2019	0.00257 (J)	0.00469
10/14/2019	0.00162 (J)	0.00403
2/3/2020	0.00141 (J)	
2/4/2020		0.00415
8/4/2020	0.00174 (J)	
8/5/2020		0.00385
3/1/2021	0.00157	
3/3/2021		0.00406
7/14/2021	0.00175	0.00577
1/26/2022	0.00179	
1/27/2022		0.00768
Mean	0.001988	0.00474
Std. Dev.	0.0006843	0.001358
Upper Lim.	0.00345	0.00768
Lower Lim.	0.00141	0.00369

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4
10/17/2018	0.00188
4/10/2019	0.00176
10/14/2019	0.0015
2/4/2020	0.00143
8/5/2020	0.00157
3/3/2021	0.00162
7/14/2021	0.00246
1/27/2022	0.00336
Mean	0.001948
Std. Dev.	0.0006563
Upper Lim.	0.00336
Lower Lim.	0.00143

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.01	<0.01	<0.01
4/10/2019	<0.01	<0.01	<0.01
10/14/2019	<0.01	<0.01	<0.01
2/3/2020	<0.01		
2/4/2020		<0.01	<0.01
8/4/2020	<0.01		
8/5/2020		<0.01	<0.01
3/1/2021	0.000386 (J)		0.000423 (J)
3/3/2021		0.000567 (J)	
7/14/2021	0.00039 (J)	0.0007 (J)	0.0003 (J)
1/26/2022	0.00048 (J)		
1/27/2022		0.00107	0.00046 (J)
Mean	0.006407	0.006542	0.006398
Std. Dev.	0.004959	0.004774	0.004972
Upper Lim.	0.01	0.01	0.01
Lower Lim.	0.000386	0.000567	0.0003

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
4/17/2017	0.294 (o)		
10/17/2018	0.138	0.154	<0.005
4/10/2019	0.151	0.241	<0.005
10/14/2019	0.102	0.213	<0.005
2/3/2020	0.0843		
2/4/2020		0.217	<0.005
8/4/2020	0.0862		
8/5/2020		0.235	<0.005
3/1/2021	0.119		0.00546
3/3/2021		0.24	
7/14/2021	0.0555	0.296	0.00026
1/26/2022	0.0794		
1/27/2022		0.406	0.00067
Mean	0.1019	0.2503	0.003924
Std. Dev.	0.03212	0.07419	0.002143
Upper Lim.	0.136	0.3289	0.00546
Lower Lim.	0.06788	0.1716	0.00026

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.668	0.922	1.05
4/10/2019	0.265 (U)	0.622	0.128 (U)
10/14/2019	0.297 (U)	0.317 (U)	0.225 (U)
2/3/2020	0.28 (U)		
2/4/2020		0.324 (U)	0.336 (U)
8/4/2020	0.45 (U)		
8/5/2020		0.389 (U)	-0.115 (U)
3/1/2021	0.57 (U)		0.902 (U)
3/3/2021		0.836 (U)	
7/14/2021	0.668 (U)	1.58	1.23 (U)
1/26/2022	0.335 (U)		
1/27/2022		0.791 (U)	0.28 (U)
Mean	0.4416	0.7226	0.5045
Std. Dev.	0.1726	0.4204	0.4876
Upper Lim.	0.6243	1.168	1.021
Lower Lim.	0.2672	0.277	-0.01234

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.78	0.44	0.16
4/10/2019	0.738	<0.1	0.156
10/14/2019	0.619	<0.1	0.118
2/3/2020	0.427		
2/4/2020		<0.1	0.132
8/4/2020	0.389		
8/5/2020		<0.1	0.119
3/1/2021	0.449		0.106
3/3/2021		<0.1	
7/14/2021	0.556	<0.1	0.221
1/26/2022	0.447		
1/27/2022		<0.1	0.179
Mean	0.5506	0.09875	0.1489
Std. Dev.	0.1488	0.1379	0.03827
Upper Lim.	0.7083	0.44	0.1894
Lower Lim.	0.393	0.05	0.1083

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	<0.0002	<0.0002	<0.0002
4/10/2019	<0.0002	<0.0002	<0.0002
10/14/2019	<0.0002	<0.0002	<0.0002
2/3/2020	<0.0002		
2/4/2020		<0.0002	<0.0002
8/4/2020	<0.0002		
8/5/2020		<0.0002	<0.0002
3/1/2021	0.000157 (J)		0.000145 (J)
3/3/2021		0.000609	
7/14/2021	0.00018 (J)	0.00079	<0.0002
1/26/2022	0.00014 (J)		
1/27/2022		0.00103	0.00015 (J)
Mean	0.0001846	0.0004286	0.0001869
Std. Dev.	2.378E-05	0.0003351	2.434E-05
Upper Lim.	0.0002	0.00103	0.0002
Lower Lim.	0.00014	0.0002	0.000145

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4	GS-GSA-MW-8
10/17/2018	0.494	0.266	0.188
4/10/2019	0.425	0.282	0.195
10/14/2019	0.459	0.262	0.209
2/3/2020	0.474		
2/4/2020		0.29	0.188
8/4/2020	0.468		
8/5/2020		0.273	0.206
3/1/2021	0.353		0.149
3/3/2021		0.313	
7/14/2021	0.485	0.487	0.213
1/26/2022	0.31		
1/27/2022		0.671	0.185
Mean	0.4335	0.3555	0.1916
Std. Dev.	0.06719	0.1473	0.02023
Upper Lim.	0.4994	0.671	0.2131
Lower Lim.	0.3666	0.262	0.1702

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-8
10/17/2018	<0.01	<0.01
4/10/2019	<0.01	<0.01
10/14/2019	<0.01	<0.01
2/3/2020	<0.01	
2/4/2020		<0.01
8/4/2020	<0.01	
8/5/2020		<0.01
3/1/2021	0.00022	0.00277
7/14/2021	0.00026	0.00015 (J)
1/26/2022	0.00022	
1/27/2022		0.00012 (J)
Mean	0.006337	0.00663
Std. Dev.	0.005055	0.004722
Upper Lim.	0.01	0.01
Lower Lim.	0.00022	0.00012

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-3	GS-GSA-MW-4
10/17/2018	<0.01	<0.01
4/10/2019	0.00234 (J)	0.00322 (J)
10/14/2019	<0.01	<0.01
2/3/2020	<0.01	
2/4/2020		<0.01
8/4/2020	<0.01	
8/5/2020		0.00298 (J)
3/1/2021	0.00141	
3/3/2021		0.00294
7/14/2021	0.00151	0.00563
1/26/2022	0.00117	
1/27/2022		0.00817
Mean	0.005804	0.006617
Std. Dev.	0.004498	0.003295
Upper Lim.	0.01	0.01
Lower Lim.	0.00117	0.00294

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 5/11/2022 6:38 PM View: Appendix IV

Plant Gorgas Client: Southern Company Data: Gorgas GSA

	GS-GSA-MW-4
10/17/2018	<0.001
4/10/2019	<0.001
10/14/2019	<0.001
2/4/2020	<0.001
8/5/2020	0.000205 (J)
3/3/2021	0.000178 (J)
7/14/2021	9E-05 (J)
1/27/2022	0.00022
Mean	0.0005866
Std. Dev.	0.0004436
Upper Lim.	0.001
Lower Lim.	9E-05

Appendix B

ISOTOPE TRACER TECHNOLOGIES INC

Isotope Analyses for: Alabama Power General Test Lab

IT^2 FILE # 210277

2021-09-03

Approved by:

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

ISOTOPE TRACER TECHNOLOGIES INC

Client: Alabama Power General Test Lab
Address: 744 Co. Rd. 87, GSC#8
Calera, AL 35040
USA
Tel: 205-664-6197
Attn.: Laura Midkiff
E-mail: lbmidkif@southernco.com
E-mail: TBWILL@southernco.com
E-mail: RGARNER@SOUTHERNCO.COM

File Number: **210277**
Project Number: **WMWGORG_1329**

#	Sample ID	Sample Collection		Sample #	$\delta^{11}B$	Result	Repeat	Sample Size	B Concen.
		Date	Time		‰	NIST 951a			mg/L
1	BB12697 MW-8	2021-07-14	10:52	74181	X	33.6	32.7	1 x 1Litre Bottle	2.07
2	BB12776 MW-14H	2021-07-13	13:51	74182	X	11.6		1 x 1Litre Bottle	0.139
3	BB12777 MW-14H DUP	2021-07-13	13:51	74183	X	3.7		1 x 1Litre Bottle	0.139
4	BB12779 MW-4	2021-07-14	8:38	74184	X	2.8	4.0	1 x 1Litre Bottle	4.78
5	BB12780 MW-4V	2021-07-14	10:04	74185	X	-2.6		1 x 1Litre Bottle	3.68
6	BB12785 EB-1	2021-07-14	16:15	74186	X	BDL		1 x 1Litre Bottle	N.D.
7	BB12846 MW-9H	2021-07-13	13:45	74187	X	0.0	-0.1	1 x 1Litre Bottle	5.84
8	BB12847 MW-12H	2021-07-14	9:35	74188	X	8.8		1 x 1Litre Bottle	0.0742
9	BB12852 MW-3	2021-07-14	14:55	74189	X	14.4		1 x 1Litre Bottle	1.47
10	BB12853 MW-3V	2021-07-15	10:50	74190	X	25.3		1 x 1Litre Bottle	3.04
11	BB12854 FB-2	2021-07-15	12:05	74191	X	BDL		1 x 1Litre Bottle	N.D.

BDL: Below Detection Limit
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

ISOTOPE TRACER TECHNOLOGIES INC

CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM

Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends.

Specify date required	Service Requested
	(regular)
4 Weeks	(Rush)

COMPANY NAME	Alabama Power General Test Lab
OFFICE ADDRESS	744 Co. Rd. 87, GSC#8 Calera, AL 35040
PROJECT MANAGER: Laura Midkiff	
PROJECT # WMWGORG_1329	
PHONE 205-664-6197	FAX
	PO # APC63628-0001

REPORT FORMAT/DISTRIBUTION

EMAIL __X___ FAX _______ BOTH ________
SELECT: PDF ____ DIGITAL _____ BOTH _X_
EMAIL 1 __LBMIDKIF@SOUTHERNCO.COM__
EMAIL 2 __RGARNER@ SOUTHERNCO.COM__
EMAIL 3 __TBWILL@ SOUTHERNCO.COM__

ANALYSIS REQUEST

PLEASE INDICATE FILTERED, PRESERVED OR BOTH <----- (F, P, F/P)

SUBMISSION #:

ENTERED BY:

DATE/TIME ENTERED:

BIN #:

SAMPLING INFORMATION

Sample Date (YYYY-MM-DD)	Time (24hr) (hh:mm)	TYPE: COMP	TYPE: GRAB	MATRIX: WATER	MATRIX: SOIL	MATRIX: OTHER	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	Boron Method (Isotopes 10 & 11)	COMMENTS	LAB ID
7/14/2021	10:52		x	x			BB12697 MW-8	1	X		

SPECIAL INSTRUCTIONS/COMMENTS

THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES (CHECK Yes OR No)

Are any samples taken from a regulated DW System? Yes ___ No _X_
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 ___

SAMPLE CONDITION

___ FROZEN
___ COLD
___ COOLING INITIATED
___ AMBIENT

Observations

SAMPLED BY: Anthony Goggins	7/14/2021 15:35	RECEIVED BY: Laura Midkiff	7/14/2021 15:35
RELINQUISHED BY: Laura Midkiff (signature)	DATE & TIME 7/16/21 1320	RECEIVED AT LAB BY: (signature)	DATE & TIME Jul. 22, 2021 12:00

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.

ISOTOPE TRACER TECHNOLOGIES INC

CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM

Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends.

Specify date required: 4 Weeks

Service Requested: (regular) / (Rush)

COMPANY NAME	Alabama Power General Test Lab
OFFICE ADDRESS	744 Co. Rd. 87, GSC#8 Calera, AL 3S040
PROJECT MANAGER: Laura Midkiff	
PROJECT # WMWGORG_1329	
PHONE 205-664-6197	FAX
	PO # APC63628-0001

REPORT FORMAT/DISTRIBUTION

EMAIL _X_ FAX _____ BOTH _____
SELECT: PDF ____ DIGITAL ____ BOTH _X_
EMAIL 1 _LBMIDKIF@SOUTHERNCO.COM_
EMAIL 2 _RGARNER@ SOUTHERNCO.COM_
EMAIL 3 _TBWILL@ SOUTHERNCO.COM_

ANALYSIS REQUEST

PLEASE INDICATE FILTERED, PRESERVED OR BOTH <----- (F, P, F/P)

SUBMISSION #:

ENTERED BY:

DATE/TIME ENTERED:

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	Boron Method (Isotopes 10 & 11)										COMMENTS	LAB ID
7/13/2021	13:51		x	x			BB12776 MW-14H	x	x											
7/13/2021	13:51		x	x			BB12777 MW-14H DUP	x	x											
7/14/2021	8:38		x	x			BB12779 MW-4	x	x											
7/14/2021	10:04		x	x			BB12780 MW-4V	x	x											
7/14/2021	16:15		x	x			BB12785 EB-1	x	x											

SPECIAL INSTRUCTIONS/COMMENTS

THE QUESTIONS BELOW MUST BE ANSWERED FORWATER SAMPLES (CHECK Yes OR No)

Are any samples taken from a regulated DW System? Yes ___ No _X_
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 ___

SAMPLE CONDITION

___ FROZEN
___ COLD
___ COOLING INITIATED
___ AMBIENT

Observations

SAMPLED BY: Dallas Gentry	7/15/2021 8:44	RECEIVED BY: Laura Midkiff	7/15/2021 8:44
RELINQUISHED BY: Laura Midkiff	DATE & TIME 7/16/21 1310	RECEIVED AT LAB BY: K. M.	DATE & TIME Jul 22, 21 12:20

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.

ISOTOPE TRACER TECHNOLOGIES INC

CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM

Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends.

Specify date required: 4 Weeks

Service Requested: (regular) / (Rush)

COMPANY NAME	Alabama Power General Test Lab
OFFICE ADDRESS	744 Co. Rd. 87, GSC#8 Calera, AL 35040
PROJECT MANAGER: Laura Midkiff	
PROJECT # WMWGORG_1329	
PHONE 205-664-6197	FAX
	PO # APC63628-0001

REPORT FORMAT/DISTRIBUTION

EMAIL _X__ FAX _____ BOTH _____
SELECT: PDF ____ DIGITAL ____ BOTH _X_
EMAIL 1 __LBMIDKIF@SOUTHERNCO.COM__
EMAIL 2 __RGARNER@ SOUTHERNCO.COM__
EMAIL 3 __TBWILL@ SOUTHERNCO.COM__

ANALYSIS REQUEST

PLEASE INDICATE FILTERED, PRESERVED OR BOTH <----- (F, P, F/P)

SUBMISSION #:

ENTERED BY:

DATE/TIME ENTERED:

BIN #:

SAMPLING INFORMATION

Sample Date/Time		TYPE		MATRIX			SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	Boron Method (Isotopes 10 & 11)	COMMENTS	LAB ID
Date (YYYY-MM-DD)	Time (24hr) (hh:mm)	COMP	GRAB	WATER	SOIL	OTHER					
7/13/2021	13:45		x	x			BB12846 MW-9H	x	x		
7/14/2021	9:35		x	x			BB12847 MW-12H	x	x		
7/14/2021	14:55		x	x			BB12852 MW-3	x	x		
7/15/2021	10:50		x	x			BB12853 MW-3V	x	x		
7/15/2021	12:05		x	x			BB12854 FB-2	x	x		

SPECIAL INSTRUCTIONS/COMMENTS

THE QUESTIONS BELOW MUST BE ANSWERED FORWATER SAMPLES (CHECK Yes OR No)

Are any samples taken from a regulated DW System? Yes ___ No _X_
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 ___

SAMPLE CONDITION

___ FROZEN
___ COLD
___ COOLING INITIATED
___ AMBIENT

Observations

SAMPLED BY: TJ Daugherty	7/15/2021 14:35	RECEIVED BY: Laura Midkiff	7/15/2021 14:35
RELINQUISHED BY: Laura Midkiff	DATE & TIME 7/15/21 1320	RECEIVED AT LAB BY: K. M.	DATE & TIME July 22, 21 12:00

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.

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

Analytical Report

Alabama Power

Sample Group : WMWGORG_1342

Project/Site : Gorgas Gypsum
Parrish, AL 35580

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

Attention : Dustin Brooks & Greg Dyer

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

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

Alabama Power

November 19, 2021

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 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=lbmidkif@southernco.com, c=US
Date: 2021.11.19 14:20:21 -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: 2021.11.22 08:59:32 -06'00'

Alabama Power Lab & Field SERVICES

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

Case Narrative

Alabama Power

Total Metals ICP

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	711015	WMWGORG_1342
BB19047	711015	WMWGORG_1342
BB19048	711015	WMWGORG_1342
BB19049	711015	WMWGORG_1342
BB19050	711015	WMWGORG_1342
BB19051	711015	WMWGORG_1342

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:

Sample ID	Analyte	Dilution Factor
BB19046	Calcium & Magnesium	50.75
BB19047	Calcium & Magnesium	50.75
BB19049	Calcium & Magnesium	50.75
BB19050	Calcium	50.75

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

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

Case Narrative

Alabama Power

Dissolved Metals ICP

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	710937	WMWGORG_1342
BB19047	710937	WMWGORG_1342
BB19049	710937	WMWGORG_1342
BB19050	710937	WMWGORG_1342

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.

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

Case Narrative

Alabama Power

Total Metals ICPMS

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	710844	WMWGORG_1342
BB19047	710844	WMWGORG_1342
BB19048	710844	WMWGORG_1342
BB19049	710844	WMWGORG_1342
BB19050	710844	WMWGORG_1342
BB19051	710844	WMWGORG_1342

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	710735	WMWGORG_1342
BB19047	710735	WMWGORG_1342
BB19049	710735	WMWGORG_1342
BB19050	710735	WMWGORG_1342

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Mercury

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	710869	WMWGORG_1342
BB19047	710869	WMWGORG_1342
BB19048	710869	WMWGORG_1342
BB19049	710869	WMWGORG_1342
BB19050	710869	WMWGORG_1342
BB19051	710869	WMWGORG_1342

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.

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

Case Narrative

Alabama Power

TDS

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	710477	WMWGORG_1342
BB19047	710477	WMWGORG_1342
BB19048	710477	WMWGORG_1342
BB19049	710477	WMWGORG_1342
BB19050	710477	WMWGORG_1342
BB19051	710477	WMWGORG_1342

4. All of the above samples were analyzed and prepared 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%.
- 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:
    - BB19048
    - BB19051

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

Case Narrative

Alabama Power

Anions

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	710407, 710882, & 710966	WMWGORG_1342
BB19047	710407, 710882, & 710966	WMWGORG_1342
BB19048	710407, 710882, & 710966	WMWGORG_1342
BB19049	710407, 710882, & 710966	WMWGORG_1342
BB19050	710407, 710882, & 710966	WMWGORG_1342
BB19051	710407, 710882, & 710966	WMWGORG_1342

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BB19046	Chloride & Sulfate	10 & 50
BB19047	Chloride & Sulfate	10 & 50
BB19049	Chloride & Sulfate	10 & 50
BB19050	Sulfate	40

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

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

Case Narrative

Alkalinity

Gorgas Gypsum

WMWGORG_1342

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.

Sample ID	Batch ID	Project ID
BB19046	711480 & 711481	WMWGORG_1342
BB19047	711480 & 711481	WMWGORG_1342
BB19049	711480 & 711481	WMWGORG_1342
BB19050	711480 & 711481	WMWGORG_1342

4. All of the above samples were analyzed and prepared 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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-3

Location Code: WMWGORG
Collected: 10/13/21 10:18
Customer ID:
Submittal Date: 10/13/21 15:24

Laboratory ID Number: BB19046

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	10/21/21 12:00	10/22/21 11:29		1.015	7.25	mg/L	0.030000	0.1015	
* Calcium, Total	10/21/21 12:00	10/22/21 14:13		50.75	656	mg/L	3.50175	20.3	
* Iron, Total	10/21/21 12:00	10/22/21 11:29		1.015	0.0142	mg/L	0.008120	0.0406	J
* Lithium, Total	10/21/21 12:00	10/22/21 11:29		1.015	0.0330	mg/L	0.007105	0.01999956	
* Magnesium, Total	10/21/21 12:00	10/22/21 14:13		50.75	65.7	mg/L	1.06575	20.3	
* Sodium, Total	10/21/21 12:00	10/22/21 11:29		1.015	3.21	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	10/20/21 14:00	10/21/21 11:19		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.00132	mg/L	0.000508	0.001015	
* Arsenic, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.0344	mg/L	0.000068	0.000203	
* Barium, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.0195	mg/L	0.000102	0.000203	
* Beryllium, Total	10/14/21 07:36	10/14/21 16:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	10/14/21 07:36	10/14/21 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	10/14/21 07:36	10/14/21 16:54		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.000469	mg/L	0.000068	0.000203	
* Lead, Total	10/14/21 07:36	10/14/21 16:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.0152	mg/L	0.000068	0.000203	
* Potassium, Total	10/14/21 07:36	10/14/21 16:54		1.015	4.00	mg/L	0.169505	0.5075	
* Manganese, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.0654	mg/L	0.000068	0.000203	
* Selenium, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.0169	mg/L	0.000508	0.001015	
* Thallium, Total	10/14/21 07:36	10/14/21 16:54		1.015	0.000230	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	10/14/21 08:13	10/14/21 09:54		1.015	0.00168	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	10/19/21 13:32	10/19/21 19:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	10/26/21 10:15	10/26/21 10:50		1	43.4	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	10/15/21 10:41	10/18/21 13:10		1	2380	mg/L		125	

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

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-3

Location Code: WMWGORG
Collected: 10/13/21 10:18
Customer ID:
Submittal Date: 10/13/21 15:24

Laboratory ID Number: BB19046

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	42.6	mg/L			
Carbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	0.71	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	10/14/21 12:01	10/14/21 12:01		10	102	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	10/19/21 09:13	10/19/21 09:13		1	3.19	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	10/20/21 14:02	10/20/21 14:02		50	1650	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	10/13/21 10:15	10/13/21 10:15			2541.12	uS/cm			FA
pH	10/13/21 10:15	10/13/21 10:15			8.24	SU			FA
Temperature	10/13/21 10:15	10/13/21 10:15			27.51	C			FA
Turbidity	10/13/21 10:15	10/13/21 10:15			1.79	NTU			FA

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

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 10/13/21 10:18
Customer ID:
Delivery Date: 10/13/21 15:24

Description: Gorgas Gypsum - SP-3

Laboratory ID Number: BB19046

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19051	Barium, Total	mg/L	0.0000000	0.000200	0.100	0.101	0.0999	0.0979	0.0850 to 0.115	101	70.0 to 130	1.10	20.0
BB19051	Boron, Total	mg/L	0.00153	0.0650	1.00	1.02	1.03	1.02	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BB19051	Mercury, Total by CVAA	mg/L	6.000E-05	0.000500	0.004	0.00396	0.0039	0.00404	0.00340 to 0.00460	99.0	70.0 to 130	1.53	20.0
BB19051	Manganese, Total	mg/L	0.0000251	0.000147	0.100	0.0981	0.102	0.103	0.0850 to 0.115	98.1	70.0 to 130	3.90	20.0
BB19051	Arsenic, Total	mg/L	-0.0000563	0.000147	0.100	0.100	0.0996	0.103	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BB19051	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BB19051	Sodium, Total	mg/L	0.000254	0.0660	5.00	5.06	5.07	5.08	4.25 to 5.75	101	70.0 to 130	0.197	20.0
BB19051	Beryllium, Total	mg/L	0.0000219	0.000880	0.100	0.106	0.108	0.0915	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BB19051	Molybdenum, Total	mg/L	0.0000519	0.000147	0.100	0.0986	0.0997	0.0993	0.0850 to 0.115	98.6	70.0 to 130	1.11	20.0
BB19051	Lead, Total	mg/L	0.0000094	0.000147	0.100	0.101	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BB19051	Calcium, Total	mg/L	0.00139	0.152	5.00	5.23	5.27	5.13	4.25 to 5.75	105	70.0 to 130	0.762	20.0
BB19051	Thallium, Total	mg/L	0.0000015	0.000147	0.100	0.0942	0.0970	0.0945	0.0850 to 0.115	94.2	70.0 to 130	2.93	20.0
BB19051	Iron, Total	mg/L	0.000116	0.0176	0.2	0.206	0.208	0.205	0.170 to 0.230	103	70.0 to 130	0.966	20.0
BB19051	Cobalt, Total	mg/L	0.0000059	0.000147	0.100	0.0993	0.101	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.70	20.0
BB19051	Lithium, Total	mg/L	-3.240E-05	0.0154	0.200	0.204	0.205	0.201	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB19051	Antimony, Total	mg/L	0.000153	0.00100	0.100	0.0960	0.0931	0.0979	0.0850 to 0.115	96.0	70.0 to 130	3.07	20.0
BB19050	Manganese, Dissolved	mg/L	-0.0000441	0.000147	0.100	0.101	0.106	0.104	0.0850 to 0.115	101	70.0 to 130	4.83	20.0
BB19051	Chromium, Total	mg/L	-0.0000246	0.000440	0.100	0.0976	0.0988	0.103	0.0850 to 0.115	97.6	70.0 to 130	1.22	20.0
BB19051	Potassium, Total	mg/L	-0.00508	0.367	10.0	10.2	10.3	10.3	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB19050	Iron, Dissolved	mg/L	-2.780E-05	0.0176	0.2	0.204	0.203	0.205	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BB19051	Selenium, Total	mg/L	-0.0000644	0.00100	0.100	0.102	0.105	0.103	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB19051	Magnesium, Total	mg/L	0.000272	0.0462	5.00	5.29	5.37	5.22	4.25 to 5.75	106	70.0 to 130	1.50	20.0

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 10/13/21 10:18
Customer ID:
Delivery Date: 10/13/21 15:24

Description: Gorgas Gypsum - SP-3

Laboratory ID Number: BB19046

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19050	Alkalinity, Total as CaCO3	mg/L					37.6	49.7	45.0 to 55.0			5.75	10.0
BB19051	Sulfate	mg/L	0.201	1.00	20.0	19.3	0.222	18.1	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB19050	Solids, Dissolved	mg/L	0.0000	25.0			902	49.0	40.0 to 60.0			0.445	10.0
BB19051	Fluoride	mg/L	-0.0151	0.100	2.50	2.47	0.0121	2.57	2.25 to 2.75	98.8	80.0 to 120	0.00	20.0
BB19051	Chloride	mg/L	0.0129	1.00	10.0	9.89	0.049	9.96	9.00 to 11.0	98.9	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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-3 DUP

Location Code: WMWGORG
Collected: 10/13/21 10:18
Customer ID:
Submittal Date: 10/13/21 15:24

Laboratory ID Number: BB19047

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	10/21/21 12:00	10/22/21 11:32		1.015	7.21	mg/L	0.030000	0.1015	
* Calcium, Total	10/21/21 12:00	10/22/21 14:16		50.75	654	mg/L	3.50175	20.3	
* Iron, Total	10/21/21 12:00	10/22/21 11:32		1.015	0.0145	mg/L	0.008120	0.0406	J
* Lithium, Total	10/21/21 12:00	10/22/21 11:32		1.015	0.0330	mg/L	0.007105	0.01999956	
* Magnesium, Total	10/21/21 12:00	10/22/21 14:16		50.75	65.6	mg/L	1.06575	20.3	
* Sodium, Total	10/21/21 12:00	10/22/21 11:32		1.015	3.19	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	10/20/21 14:00	10/21/21 11:22		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.00127	mg/L	0.000508	0.001015	
* Arsenic, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.0344	mg/L	0.000068	0.000203	
* Barium, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.0190	mg/L	0.000102	0.000203	
* Beryllium, Total	10/14/21 07:36	10/14/21 16:57		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	10/14/21 07:36	10/14/21 16:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.000322	mg/L	0.000203	0.001015	J
* Cobalt, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.000471	mg/L	0.000068	0.000203	
* Lead, Total	10/14/21 07:36	10/14/21 16:57		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.0162	mg/L	0.000068	0.000203	
* Potassium, Total	10/14/21 07:36	10/14/21 16:57		1.015	4.12	mg/L	0.169505	0.5075	
* Manganese, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.0679	mg/L	0.000068	0.000203	
* Selenium, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.0174	mg/L	0.000508	0.001015	
* Thallium, Total	10/14/21 07:36	10/14/21 16:57		1.015	0.000247	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	10/14/21 08:13	10/14/21 09:58		1.015	0.00172	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	10/19/21 13:32	10/19/21 19:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	10/26/21 10:15	10/26/21 10:50		1	46.8	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	10/15/21 10:41	10/18/21 13:10		1	2360	mg/L		125	

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

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-3 DUP

Location Code: WMWGORG
Collected: 10/13/21 10:18
Customer ID:
Submittal Date: 10/13/21 15:24

Laboratory ID Number: BB19047

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	45.8	mg/L			
Carbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	0.90	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	10/14/21 12:03	10/14/21 12:03		10	98.8	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	10/19/21 09:14	10/19/21 09:14		1	3.47	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	10/20/21 14:04	10/20/21 14:04		50	1650	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	10/13/21 10:15	10/13/21 10:15			2541.12	uS/cm			FA
pH	10/13/21 10:15	10/13/21 10:15			8.24	SU			FA
Temperature	10/13/21 10:15	10/13/21 10:15			27.51	C			FA
Turbidity	10/13/21 10:15	10/13/21 10:15			1.79	NTU			FA

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

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 10/13/21 10:18
Customer ID:
Delivery Date: 10/13/21 15:24

Description: Gorgas Gypsum - SP-3 DUP

Laboratory ID Number: BB19047

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19051	Mercury, Total by CVAA	mg/L	6.000E-05	0.000500	0.004	0.00396	0.0039	0.00404	0.00340 to 0.00460	99.0	70.0 to 130	1.53	20.0
BB19051	Manganese, Total	mg/L	0.0000251	0.000147	0.100	0.0981	0.102	0.103	0.0850 to 0.115	98.1	70.0 to 130	3.90	20.0
BB19051	Arsenic, Total	mg/L	-0.0000563	0.000147	0.100	0.100	0.0996	0.103	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BB19051	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BB19051	Barium, Total	mg/L	0.0000000	0.000200	0.100	0.101	0.0999	0.0979	0.0850 to 0.115	101	70.0 to 130	1.10	20.0
BB19051	Boron, Total	mg/L	0.00153	0.0650	1.00	1.02	1.03	1.02	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BB19051	Selenium, Total	mg/L	-0.0000644	0.00100	0.100	0.102	0.105	0.103	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB19051	Magnesium, Total	mg/L	0.000272	0.0462	5.00	5.29	5.37	5.22	4.25 to 5.75	106	70.0 to 130	1.50	20.0
BB19051	Antimony, Total	mg/L	0.000153	0.00100	0.100	0.0960	0.0931	0.0979	0.0850 to 0.115	96.0	70.0 to 130	3.07	20.0
BB19050	Manganese, Dissolved	mg/L	-0.0000441	0.000147	0.100	0.101	0.106	0.104	0.0850 to 0.115	101	70.0 to 130	4.83	20.0
BB19051	Chromium, Total	mg/L	-0.0000246	0.000440	0.100	0.0976	0.0988	0.103	0.0850 to 0.115	97.6	70.0 to 130	1.22	20.0
BB19051	Potassium, Total	mg/L	-0.00508	0.367	10.0	10.2	10.3	10.3	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB19050	Iron, Dissolved	mg/L	-2.780E-05	0.0176	0.2	0.204	0.203	0.205	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BB19051	Lithium, Total	mg/L	-3.240E-05	0.0154	0.200	0.204	0.205	0.201	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB19051	Sodium, Total	mg/L	0.000254	0.0660	5.00	5.06	5.07	5.08	4.25 to 5.75	101	70.0 to 130	0.197	20.0
BB19051	Beryllium, Total	mg/L	0.0000219	0.000880	0.100	0.106	0.108	0.0915	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BB19051	Molybdenum, Total	mg/L	0.0000519	0.000147	0.100	0.0986	0.0997	0.0993	0.0850 to 0.115	98.6	70.0 to 130	1.11	20.0
BB19051	Lead, Total	mg/L	0.0000094	0.000147	0.100	0.101	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BB19051	Calcium, Total	mg/L	0.00139	0.152	5.00	5.23	5.27	5.13	4.25 to 5.75	105	70.0 to 130	0.762	20.0
BB19051	Thallium, Total	mg/L	0.0000015	0.000147	0.100	0.0942	0.0970	0.0945	0.0850 to 0.115	94.2	70.0 to 130	2.93	20.0
BB19051	Iron, Total	mg/L	0.000116	0.0176	0.2	0.206	0.208	0.205	0.170 to 0.230	103	70.0 to 130	0.966	20.0
BB19051	Cobalt, Total	mg/L	0.0000059	0.000147	0.100	0.0993	0.101	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.70	20.0

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 10/13/21 10:18
Customer ID:
Delivery Date: 10/13/21 15:24

Description: Gorgas Gypsum - SP-3 DUP

Laboratory ID Number: BB19047

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19050	Solids, Dissolved	mg/L	0.0000	25.0			902	49.0	40.0 to 60.0			0.445	10.0
BB19050	Alkalinity, Total as CaCO3	mg/L					37.6	49.7	45.0 to 55.0			5.75	10.0
BB19051	Sulfate	mg/L	0.201	1.00	20.0	19.3	0.222	18.1	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB19051	Fluoride	mg/L	-0.0151	0.100	2.50	2.47	0.0121	2.57	2.25 to 2.75	98.8	80.0 to 120	0.00	20.0
BB19051	Chloride	mg/L	0.0129	1.00	10.0	9.89	0.049	9.96	9.00 to 11.0	98.9	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.

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Field Blank-1

Location Code: WMWGORGFB
Collected: 10/13/21 10:40
Customer ID:
Submittal Date: 10/13/21 15:25

Laboratory ID Number: BB19048

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	10/21/21 12:00	10/22/21 11:36		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	10/21/21 12:00	10/22/21 11:36		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	10/21/21 12:00	10/22/21 11:36		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	10/21/21 12:00	10/22/21 11:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	10/21/21 12:00	10/22/21 11:36		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	10/21/21 12:00	10/22/21 11:36		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	10/14/21 07:36	10/14/21 17:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	10/19/21 13:32	10/19/21 19:31		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	10/15/21 10:41	10/18/21 13:10		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	10/14/21 12:04	10/14/21 12:04		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	10/19/21 09:15	10/19/21 09:15		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	10/20/21 14:08	10/20/21 14:08		1	0.638	mg/L	0.50	1	J

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

Comments:

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORGFB
Sample Date: 10/13/21 10:40
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum Field Blank-1

Laboratory ID Number: BB19048

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19051	Barium, Total	mg/L	0.0000000	0.000200	0.100	0.101	0.0999	0.0979	0.0850 to 0.115	101	70.0 to 130	1.10	20.0
BB19051	Boron, Total	mg/L	0.00153	0.0650	1.00	1.02	1.03	1.02	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BB19051	Lithium, Total	mg/L	-3.240E-05	0.0154	0.200	0.204	0.205	0.201	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB19051	Selenium, Total	mg/L	-0.0000644	0.00100	0.100	0.102	0.105	0.103	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB19051	Magnesium, Total	mg/L	0.000272	0.0462	5.00	5.29	5.37	5.22	4.25 to 5.75	106	70.0 to 130	1.50	20.0
BB19051	Mercury, Total by CVAA	mg/L	6.000E-05	0.000500	0.004	0.00396	0.0039	0.00404	0.00340 to 0.00460	99.0	70.0 to 130	1.53	20.0
BB19051	Manganese, Total	mg/L	0.0000251	0.000147	0.100	0.0981	0.102	0.103	0.0850 to 0.115	98.1	70.0 to 130	3.90	20.0
BB19051	Arsenic, Total	mg/L	-0.0000563	0.000147	0.100	0.100	0.0996	0.103	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BB19051	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BB19051	Antimony, Total	mg/L	0.000153	0.00100	0.100	0.0960	0.0931	0.0979	0.0850 to 0.115	96.0	70.0 to 130	3.07	20.0
BB19051	Chromium, Total	mg/L	-0.0000246	0.000440	0.100	0.0976	0.0988	0.103	0.0850 to 0.115	97.6	70.0 to 130	1.22	20.0
BB19051	Potassium, Total	mg/L	-0.00508	0.367	10.0	10.2	10.3	10.3	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB19051	Lead, Total	mg/L	0.0000094	0.000147	0.100	0.101	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BB19051	Calcium, Total	mg/L	0.00139	0.152	5.00	5.23	5.27	5.13	4.25 to 5.75	105	70.0 to 130	0.762	20.0
BB19051	Thallium, Total	mg/L	0.0000015	0.000147	0.100	0.0942	0.0970	0.0945	0.0850 to 0.115	94.2	70.0 to 130	2.93	20.0
BB19051	Iron, Total	mg/L	0.000116	0.0176	0.2	0.206	0.208	0.205	0.170 to 0.230	103	70.0 to 130	0.966	20.0
BB19051	Cobalt, Total	mg/L	0.0000059	0.000147	0.100	0.0993	0.101	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.70	20.0
BB19051	Sodium, Total	mg/L	0.000254	0.0660	5.00	5.06	5.07	5.08	4.25 to 5.75	101	70.0 to 130	0.197	20.0
BB19051	Beryllium, Total	mg/L	0.0000219	0.000880	0.100	0.106	0.108	0.0915	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BB19051	Molybdenum, Total	mg/L	0.0000519	0.000147	0.100	0.0986	0.0997	0.0993	0.0850 to 0.115	98.6	70.0 to 130	1.11	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORGFB
Sample Date: 10/13/21 10:40
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum Field Blank-1

Laboratory ID Number: BB19048

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19051	Sulfate	mg/L	0.201	1.00	20.0	19.3	0.222	18.1	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB19051	Fluoride	mg/L	-0.0151	0.100	2.50	2.47	0.0121	2.57	2.25 to 2.75	98.8	80.0 to 120	0.00	20.0
BB19051	Chloride	mg/L	0.0129	1.00	10.0	9.89	0.049	9.96	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BB19050	Solids, Dissolved	mg/L	0.0000	25.0			902	49.0	40.0 to 60.0			0.445	10.0

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-2

Location Code: WMWGORG
Collected: 10/13/21 10:54
Customer ID:
Submittal Date: 10/13/21 15:25

Laboratory ID Number: BB19049

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	10/21/21 12:00	10/22/21 11:39		1.015	6.52	mg/L	0.030000	0.1015	
* Calcium, Total	10/21/21 12:00	10/22/21 14:26		50.75	592	mg/L	3.50175	20.3	
* Iron, Total	10/21/21 12:00	10/22/21 11:39		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	10/21/21 12:00	10/22/21 11:39		1.015	0.0299	mg/L	0.007105	0.01999956	
* Magnesium, Total	10/21/21 12:00	10/22/21 14:26		50.75	58.8	mg/L	1.06575	20.3	
* Sodium, Total	10/21/21 12:00	10/22/21 11:39		1.015	3.00	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	10/20/21 14:00	10/21/21 11:26		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.00123	mg/L	0.000508	0.001015	
* Arsenic, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.0566	mg/L	0.000068	0.000203	
* Barium, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.0197	mg/L	0.000102	0.000203	
* Beryllium, Total	10/14/21 07:36	10/14/21 17:04		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	10/14/21 07:36	10/14/21 17:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.000207	mg/L	0.000203	0.001015	J
* Cobalt, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.000249	mg/L	0.000068	0.000203	
* Lead, Total	10/14/21 07:36	10/14/21 17:04		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.0137	mg/L	0.000068	0.000203	
* Potassium, Total	10/14/21 07:36	10/14/21 17:04		1.015	3.78	mg/L	0.169505	0.5075	
* Manganese, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.0743	mg/L	0.000068	0.000203	
* Selenium, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.0179	mg/L	0.000508	0.001015	
* Thallium, Total	10/14/21 07:36	10/14/21 17:04		1.015	0.000250	mg/L	0.000068	0.000203	
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	10/14/21 08:13	10/14/21 10:01		1.015	0.00334	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	10/19/21 13:32	10/19/21 19:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	10/26/21 10:15	10/26/21 10:50		1	42.8	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	10/15/21 10:41	10/18/21 13:10		1	2130	mg/L		125	

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

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-2

Location Code: WMWGORG
Collected: 10/13/21 10:54
Customer ID:
Submittal Date: 10/13/21 15:25

Laboratory ID Number: BB19049

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	42.0	mg/L			
Carbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	0.70	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	10/14/21 12:05	10/14/21 12:05		10	87.4	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	10/19/21 09:16	10/19/21 09:16		1	3.15	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	10/20/21 14:05	10/20/21 14:05		50	1470	mg/L	25.00	50	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	10/13/21 10:51	10/13/21 10:51			2344.21	uS/cm			FA
pH	10/13/21 10:51	10/13/21 10:51			8.18	SU			FA
Temperature	10/13/21 10:51	10/13/21 10:51			27.71	C			FA
Turbidity	10/13/21 10:51	10/13/21 10:51			2.3	NTU			FA

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

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 10/13/21 10:54
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum - SP-2

Laboratory ID Number: BB19049

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19051	Barium, Total	mg/L	0.0000000	0.000200	0.100	0.101	0.0999	0.0979	0.0850 to 0.115	101	70.0 to 130	1.10	20.0
BB19051	Boron, Total	mg/L	0.00153	0.0650	1.00	1.02	1.03	1.02	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BB19051	Mercury, Total by CVAA	mg/L	6.000E-05	0.000500	0.004	0.00396	0.0039	0.00404	0.00340 to 0.00460	99.0	70.0 to 130	1.53	20.0
BB19051	Manganese, Total	mg/L	0.0000251	0.000147	0.100	0.0981	0.102	0.103	0.0850 to 0.115	98.1	70.0 to 130	3.90	20.0
BB19051	Arsenic, Total	mg/L	-0.0000563	0.000147	0.100	0.100	0.0996	0.103	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BB19051	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BB19051	Selenium, Total	mg/L	-0.0000644	0.00100	0.100	0.102	0.105	0.103	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB19051	Magnesium, Total	mg/L	0.000272	0.0462	5.00	5.29	5.37	5.22	4.25 to 5.75	106	70.0 to 130	1.50	20.0
BB19051	Lithium, Total	mg/L	-3.240E-05	0.0154	0.200	0.204	0.205	0.201	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB19051	Sodium, Total	mg/L	0.000254	0.0660	5.00	5.06	5.07	5.08	4.25 to 5.75	101	70.0 to 130	0.197	20.0
BB19051	Beryllium, Total	mg/L	0.0000219	0.000880	0.100	0.106	0.108	0.0915	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BB19051	Molybdenum, Total	mg/L	0.0000519	0.000147	0.100	0.0986	0.0997	0.0993	0.0850 to 0.115	98.6	70.0 to 130	1.11	20.0
BB19051	Antimony, Total	mg/L	0.000153	0.00100	0.100	0.0960	0.0931	0.0979	0.0850 to 0.115	96.0	70.0 to 130	3.07	20.0
BB19050	Manganese, Dissolved	mg/L	-0.0000441	0.000147	0.100	0.101	0.106	0.104	0.0850 to 0.115	101	70.0 to 130	4.83	20.0
BB19051	Chromium, Total	mg/L	-0.0000246	0.000440	0.100	0.0976	0.0988	0.103	0.0850 to 0.115	97.6	70.0 to 130	1.22	20.0
BB19051	Potassium, Total	mg/L	-0.00508	0.367	10.0	10.2	10.3	10.3	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB19050	Iron, Dissolved	mg/L	-2.780E-05	0.0176	0.2	0.204	0.203	0.205	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BB19051	Lead, Total	mg/L	0.0000094	0.000147	0.100	0.101	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BB19051	Calcium, Total	mg/L	0.00139	0.152	5.00	5.23	5.27	5.13	4.25 to 5.75	105	70.0 to 130	0.762	20.0
BB19051	Thallium, Total	mg/L	0.0000015	0.000147	0.100	0.0942	0.0970	0.0945	0.0850 to 0.115	94.2	70.0 to 130	2.93	20.0
BB19051	Iron, Total	mg/L	0.000116	0.0176	0.2	0.206	0.208	0.205	0.170 to 0.230	103	70.0 to 130	0.966	20.0
BB19051	Cobalt, Total	mg/L	0.0000059	0.000147	0.100	0.0993	0.101	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.70	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 10/13/21 10:54
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum - SP-2

Laboratory ID Number: BB19049

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19050	Alkalinity, Total as CaCO3	mg/L					37.6	49.7	45.0 to 55.0			5.75	10.0
BB19051	Sulfate	mg/L	0.201	1.00	20.0	19.3	0.222	18.1	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0
BB19051	Fluoride	mg/L	-0.0151	0.100	2.50	2.47	0.0121	2.57	2.25 to 2.75	98.8	80.0 to 120	0.00	20.0
BB19051	Chloride	mg/L	0.0129	1.00	10.0	9.89	0.049	9.96	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BB19050	Solids, Dissolved	mg/L	0.0000	25.0			902	49.0	40.0 to 60.0			0.445	10.0

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-1

Location Code: WMWGORG
Collected: 10/13/21 11:28
Customer ID:
Submittal Date: 10/13/21 15:25

Laboratory ID Number: BB19050

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	10/21/21 12:00	10/22/21 11:42		1.015	0.0866	mg/L	0.030000	0.1015	J
* Calcium, Total	10/21/21 12:00	10/22/21 14:30		50.75	260	mg/L	3.50175	20.3	
* Iron, Total	10/21/21 12:00	10/22/21 11:42		1.015	0.00935	mg/L	0.008120	0.0406	J
* Lithium, Total	10/21/21 12:00	10/22/21 11:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	10/21/21 12:00	10/22/21 11:42		1.015	8.04	mg/L	0.021315	0.406	
* Sodium, Total	10/21/21 12:00	10/22/21 11:42		1.015	1.23	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	10/20/21 14:00	10/21/21 11:29		1.015	Not Detected	mg/L	0.008120	0.0406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	10/14/21 07:36	10/14/21 17:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	10/14/21 07:36	10/14/21 17:08		1.015	0.00529	mg/L	0.000068	0.000203	
* Barium, Total	10/14/21 07:36	10/14/21 17:08		1.015	0.0133	mg/L	0.000102	0.000203	
* Beryllium, Total	10/14/21 07:36	10/14/21 17:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	10/14/21 07:36	10/14/21 17:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	10/14/21 07:36	10/14/21 17:08		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	10/14/21 07:36	10/14/21 17:08		1.015	0.0000699	mg/L	0.000068	0.000203	J
* Lead, Total	10/14/21 07:36	10/14/21 17:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	10/14/21 07:36	10/14/21 17:08		1.015	0.00146	mg/L	0.000068	0.000203	
* Potassium, Total	10/14/21 07:36	10/14/21 17:08		1.015	0.860	mg/L	0.169505	0.5075	
* Manganese, Total	10/14/21 07:36	10/14/21 17:08		1.015	0.0962	mg/L	0.000068	0.000203	
* Selenium, Total	10/14/21 07:36	10/14/21 17:08		1.015	0.000759	mg/L	0.000508	0.001015	J
* Thallium, Total	10/14/21 07:36	10/14/21 17:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	10/14/21 08:13	10/14/21 10:05		1.015	0.000341	mg/L	0.000068	0.000203	
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	10/19/21 13:32	10/19/21 19:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	10/26/21 10:15	10/26/21 10:50		1	35.5	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	10/15/21 10:41	10/18/21 13:10		1	894	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.

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum - SP-1

Location Code: WMWGORG
Collected: 10/13/21 11:28
Customer ID:
Submittal Date: 10/13/21 15:25

Laboratory ID Number: BB19050

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	34.9	mg/L			
Carbonate Alkalinity, (calc.)	10/26/21 10:15	10/26/21 10:50		1	0.50	mg/L			
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	10/14/21 12:06	10/14/21 12:06		1	0.725	mg/L	0.50	1	J
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	10/19/21 09:18	10/19/21 09:18		1	0.990	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	10/20/21 14:06	10/20/21 14:06		40	554	mg/L	20.00	40	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	10/13/21 11:25	10/13/21 11:25			1079.72	uS/cm			FA
pH	10/13/21 11:25	10/13/21 11:25			8.21	SU			FA
Temperature	10/13/21 11:25	10/13/21 11:25			28.15	C			FA
Turbidity	10/13/21 11:25	10/13/21 11:25			2.37	NTU			FA

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

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORG
Sample Date: 10/13/21 11:28
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum - SP-1

Laboratory ID Number: BB19050

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19051	Mercury, Total by CVAA	mg/L	6.000E-05	0.000500	0.004	0.00396	0.0039	0.00404	0.00340 to 0.00460	99.0	70.0 to 130	1.53	20.0
BB19051	Manganese, Total	mg/L	0.0000251	0.000147	0.100	0.0981	0.102	0.103	0.0850 to 0.115	98.1	70.0 to 130	3.90	20.0
BB19051	Arsenic, Total	mg/L	-0.0000563	0.000147	0.100	0.100	0.0996	0.103	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BB19051	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BB19051	Lithium, Total	mg/L	-3.240E-05	0.0154	0.200	0.204	0.205	0.201	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB19051	Barium, Total	mg/L	0.0000000	0.000200	0.100	0.101	0.0999	0.0979	0.0850 to 0.115	101	70.0 to 130	1.10	20.0
BB19051	Boron, Total	mg/L	0.00153	0.0650	1.00	1.02	1.03	1.02	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BB19051	Selenium, Total	mg/L	-0.0000644	0.00100	0.100	0.102	0.105	0.103	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB19051	Magnesium, Total	mg/L	0.000272	0.0462	5.00	5.29	5.37	5.22	4.25 to 5.75	106	70.0 to 130	1.50	20.0
BB19051	Sodium, Total	mg/L	0.000254	0.0660	5.00	5.06	5.07	5.08	4.25 to 5.75	101	70.0 to 130	0.197	20.0
BB19051	Beryllium, Total	mg/L	0.0000219	0.000880	0.100	0.106	0.108	0.0915	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BB19051	Molybdenum, Total	mg/L	0.0000519	0.000147	0.100	0.0986	0.0997	0.0993	0.0850 to 0.115	98.6	70.0 to 130	1.11	20.0
BB19051	Antimony, Total	mg/L	0.000153	0.00100	0.100	0.0960	0.0931	0.0979	0.0850 to 0.115	96.0	70.0 to 130	3.07	20.0
BB19050	Manganese, Dissolved	mg/L	-0.0000441	0.000147	0.100	0.101	0.106	0.104	0.0850 to 0.115	101	70.0 to 130	4.83	20.0
BB19051	Chromium, Total	mg/L	-0.0000246	0.000440	0.100	0.0976	0.0988	0.103	0.0850 to 0.115	97.6	70.0 to 130	1.22	20.0
BB19051	Potassium, Total	mg/L	-0.00508	0.367	10.0	10.2	10.3	10.3	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB19050	Iron, Dissolved	mg/L	-2.780E-05	0.0176	0.2	0.204	0.203	0.205	0.170 to 0.230	102	70.0 to 130	0.491	20.0
BB19051	Lead, Total	mg/L	0.0000094	0.000147	0.100	0.101	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BB19051	Calcium, Total	mg/L	0.00139	0.152	5.00	5.23	5.27	5.13	4.25 to 5.75	105	70.0 to 130	0.762	20.0
BB19051	Thallium, Total	mg/L	0.0000015	0.000147	0.100	0.0942	0.0970	0.0945	0.0850 to 0.115	94.2	70.0 to 130	2.93	20.0
BB19051	Iron, Total	mg/L	0.000116	0.0176	0.2	0.206	0.208	0.205	0.170 to 0.230	103	70.0 to 130	0.966	20.0
BB19051	Cobalt, Total	mg/L	0.0000059	0.000147	0.100	0.0993	0.101	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.70	20.0

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

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORG
Sample Date: 10/13/21 11:28
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum - SP-1

Laboratory ID Number: BB19050

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19050	Solids, Dissolved	mg/L	0.0000	25.0			902	49.0	40.0 to 60.0			0.445	10.0
BB19051	Fluoride	mg/L	-0.0151	0.100	2.50	2.47	0.0121	2.57	2.25 to 2.75	98.8	80.0 to 120	0.00	20.0
BB19051	Chloride	mg/L	0.0129	1.00	10.0	9.89	0.049	9.96	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BB19050	Alkalinity, Total as CaCO3	mg/L					37.6	49.7	45.0 to 55.0			5.75	10.0
BB19051	Sulfate	mg/L	0.201	1.00	20.0	19.3	0.222	18.1	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.

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

Certificate Of Analysis

Alabama Power

Description: Gorgas Gypsum Equipment Blank-1

Location Code: WMWGORGEB
Collected: 10/13/21 11:50
Customer ID:
Submittal Date: 10/13/21 15:25

Laboratory ID Number: BB19051

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	10/21/21 12:00	10/22/21 11:46		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	10/21/21 12:00	10/22/21 11:46		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	10/21/21 12:00	10/22/21 11:46		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	10/21/21 12:00	10/22/21 11:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	10/21/21 12:00	10/22/21 11:46		1.015	Not Detected	mg/L	0.021315	0.406	U
* Sodium, Total	10/21/21 12:00	10/22/21 11:46		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Arsenic, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Barium, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Beryllium, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Molybdenum, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Potassium, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	10/14/21 07:36	10/14/21 17:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	10/19/21 13:32	10/19/21 19:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	10/15/21 10:41	10/18/21 13:10		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	10/14/21 12:07	10/14/21 12:07		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	10/19/21 09:19	10/19/21 09:19		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	10/20/21 14:07	10/20/21 14:07		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWGORGEB
Sample Date: 10/13/21 11:50
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum Equipment Blank-1

Laboratory ID Number: BB19051

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19051	Antimony, Total	mg/L	0.000153	0.00100	0.100	0.0960	0.0931	0.0979	0.0850 to 0.115	96.0	70.0 to 130	3.07	20.0
BB19051	Chromium, Total	mg/L	-0.0000246	0.000440	0.100	0.0976	0.0988	0.103	0.0850 to 0.115	97.6	70.0 to 130	1.22	20.0
BB19051	Potassium, Total	mg/L	-0.00508	0.367	10.0	10.2	10.3	10.3	8.50 to 11.5	102	70.0 to 130	0.976	20.0
BB19051	Sodium, Total	mg/L	0.000254	0.0660	5.00	5.06	5.07	5.08	4.25 to 5.75	101	70.0 to 130	0.197	20.0
BB19051	Beryllium, Total	mg/L	0.0000219	0.000880	0.100	0.106	0.108	0.0915	0.0850 to 0.115	106	70.0 to 130	1.87	20.0
BB19051	Molybdenum, Total	mg/L	0.0000519	0.000147	0.100	0.0986	0.0997	0.0993	0.0850 to 0.115	98.6	70.0 to 130	1.11	20.0
BB19051	Barium, Total	mg/L	0.0000000	0.000200	0.100	0.101	0.0999	0.0979	0.0850 to 0.115	101	70.0 to 130	1.10	20.0
BB19051	Boron, Total	mg/L	0.00153	0.0650	1.00	1.02	1.03	1.02	0.850 to 1.15	102	70.0 to 130	0.976	20.0
BB19051	Mercury, Total by CVAA	mg/L	6.000E-05	0.000500	0.004	0.00396	0.0039	0.00404	0.00340 to 0.00460	99.0	70.0 to 130	1.53	20.0
BB19051	Manganese, Total	mg/L	0.0000251	0.000147	0.100	0.0981	0.102	0.103	0.0850 to 0.115	98.1	70.0 to 130	3.90	20.0
BB19051	Arsenic, Total	mg/L	-0.0000563	0.000147	0.100	0.100	0.0996	0.103	0.0850 to 0.115	100	70.0 to 130	0.401	20.0
BB19051	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.0997	0.103	0.101	0.0850 to 0.115	99.7	70.0 to 130	3.26	20.0
BB19051	Lithium, Total	mg/L	-3.240E-05	0.0154	0.200	0.204	0.205	0.201	0.170 to 0.230	102	70.0 to 130	0.489	20.0
BB19051	Selenium, Total	mg/L	-0.0000644	0.00100	0.100	0.102	0.105	0.103	0.0850 to 0.115	102	70.0 to 130	2.90	20.0
BB19051	Magnesium, Total	mg/L	0.000272	0.0462	5.00	5.29	5.37	5.22	4.25 to 5.75	106	70.0 to 130	1.50	20.0
BB19051	Lead, Total	mg/L	0.0000094	0.000147	0.100	0.101	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BB19051	Calcium, Total	mg/L	0.00139	0.152	5.00	5.23	5.27	5.13	4.25 to 5.75	105	70.0 to 130	0.762	20.0
BB19051	Thallium, Total	mg/L	0.0000015	0.000147	0.100	0.0942	0.0970	0.0945	0.0850 to 0.115	94.2	70.0 to 130	2.93	20.0
BB19051	Iron, Total	mg/L	0.000116	0.0176	0.2	0.206	0.208	0.205	0.170 to 0.230	103	70.0 to 130	0.966	20.0
BB19051	Cobalt, Total	mg/L	0.0000059	0.000147	0.100	0.0993	0.101	0.104	0.0850 to 0.115	99.3	70.0 to 130	1.70	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWGORGEB
Sample Date: 10/13/21 11:50
Customer ID:
Delivery Date: 10/13/21 15:25

Description: Gorgas Gypsum Equipment Blank-1

Laboratory ID Number: BB19051

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BB19050	Solids, Dissolved	mg/L	0.0000	25.0			902	49.0	40.0 to 60.0			0.445	10.0
BB19051	Fluoride	mg/L	-0.0151	0.100	2.50	2.47	0.0121	2.57	2.25 to 2.75	98.8	80.0 to 120	0.00	20.0
BB19051	Chloride	mg/L	0.0129	1.00	10.0	9.89	0.049	9.96	9.00 to 11.0	98.9	80.0 to 120	0.00	20.0
BB19051	Sulfate	mg/L	0.201	1.00	20.0	19.3	0.222	18.1	18.0 to 22.0	96.5	80.0 to 120	0.00	20.0

Comments:

Reported: 11/19/2021
Version: 3.4
COA_CCR

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

Definitions

Alabama Power

Project Number: WMWGORG_1342

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.
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
Collector	Anthony Goggins	Requested By	Greg Dyer
		Location	Gorgas Gypsum

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

Comments: Correcting Description from Groundwater to Sediment Pond. LBM 11/17/21

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
SP-3	10/13/2021	10:18	6	Sediment Pond		BB19046
SP-3 DUP	10/13/2021	10:18	6	Sample Duplicate		BB19047
FB-1	10/13/2021	10:40	4	Field Blank		BB19048
SP-2	10/13/2021	10:54	6	Sediment Pond		BB19049
SP-1	10/13/2021	11:28	6	Sediment Pond		BB19050
EB-1	10/13/2021	11:50	4	Equipment Blank		BB19051

Relinquished By	Received By	Date/Time
		10/13/2021 14:50

SmarTroll ID	7586-41415-5-4	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23343-4-2	Cooler Temp	0.1 degrees C
Sample Event	1342	Thermometer ID	5408-27568-2-2
		pH Strip ID	8440-53679-10-5

Bottles/Pre-Preserved Bottles are provided by the GTL

Semi-Quantitative X-Ray Diffraction

Report Prepared for:	*SGS Canada Inc*
Project Number/ LIMS No.	*Custom XRD/MI4505-FEB22*
Sample Receipt:	*February 7, 2022*
Sample Analysis:	*February 8, 2022*
Reporting Date:	*March 23, 2022*

Instrument:	BRUKER AXS D8 Advance Diffractometer
Test Conditions:	Co radiation, 35 kV, 40 mA; Detector: LYNXEYE Regular Scanning: Step: 0.02°, Step time:0.2s, 2θ range: 6-70°
Interpretations :	PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva software.
Detection Limit :	0.5-2%. Strongly dependent on crystallinity.

Contents:

1) Method Summary
2) Summary of Mineral Asemblages
3) Semi-Quantitative XRD Results
4) Chemical Balance(s)
5) XRD Pattern(s)

Kim Gibbs, H.B.Sc., P.Geo.
Senior Mineralogist

Huyun Zhou, Ph.D., P.Geo.
Senior Mineralogist

Method Summary

The Semi-Quantitative Mineral Identification by XRD (ME-LR-MIN-MET-MN-D03) method used by SGS Natural Resources is accredited to the requirements of ISO/IEC 17025.

Mineral Identification and Interpretation:

Mineral identification and interpretation involve matching the diffraction pattern of a test sample material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) and released on software as a database of Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds. Mineral proportions are based on relative peak heights and may be strongly influenced by crystallinity, structural group or preferred orientations. Interpretations and relative proportions should be accompanied by supporting petrographic and geochemical data (Whole Rock Analysis, Inductively Coupled Plasma - Optical Emission Spectroscopy, etc.).

Semi-Quantitative Analysis:

The Semi-Quantitative analysis (RIR method) is performed based on each mineral's relative peak heights and of their respective I/Icor values, which are available from the PDF database. Mineral abundances for the bulk sample (in weight %) are generated by Bruker-EVA Software. These data are reconciled with a bulk chemistry (e.g. whole rock analysis including SiO_2, Al_2O_3, Na_2O, K_2O, CaO, MgO, Fe_2O_3, Cr_2O_3, MnO, TiO_2, P_2O_5, V_2O_5 or other chemical data). A chemical balance table shows the difference between the assay results and elemental concentrations determined by XRD.

Semi-Quantitative X-ray Diffraction Results

Mineral	MW-3V-170-180 (wt %)	MW-3V-180-190 (wt %)	MW-4V-130-140 (wt %)	MW-4V-140-150 (wt %)	MW-8V-81-84 (wt %)	MW-8V-94-97 (wt %)	MW-8V-155-160 (wt %)	MW-8V-160-165 (wt %)	MW-9H-40-50 (wt %)	MW-9H-50-60 (wt %)	MW-12H-60-64 (wt %)	MW-12V-120-130 (wt %)
Quartz	36.3	56.0	42.2	39.1	24.5	43.0	33.8	42.8	54.2	57.8	43.6	40.2
Muscovite	22.9	8.9	11.9	12.8	15.2	8.4	22.0	16.6	8.9	5.3	15.7	15.8
Kaolinite	6.5	8.9	5.8	6.2	23.0	11.3	5.8	4.4	5.6	4.7	10.6	8.0
Chamosite	9.3	-	10.9	11.7	-	-	11.4	8.6	9.0	7.5	7.5	9.0
Microcline	3.7	4.7	10.3	11.0	6.9	10.2	10.4	7.7	7.8	5.8	6.5	7.9
Albite	9.9	9.6	9.5	10.9	3.1	6.3	10.0	14.0	9.7	15.1	10.2	12.3
Jarosite	-	-	-	-	14.2	7.0	-	-	2.6	-	-	-
Pyrite	-	6.5	2.6	1.2	3.6	2.6	1.3	1.0	1.3	-	-	-
Clinochlore	-	0.5	-	-	5.0	6.2	-	-	-	-	-	-
Biotite	4.2	-	1.7	1.9	-	-	1.7	1.3	-	-	-	-
Gypsum	-	1.2	1.2	1.3	2.8	4.2	-	-	-	-	0.6	-
Siderite	3.6	1.8	1.0	1.1	-	-	1.0	0.7	-	-	1.6	1.9
Rutile	0.9	1.1	1.0	1.1	1.6	0.8	1.0	0.7	0.9	0.8	0.8	0.9
Fluorapatite	2.6	-	-	1.7	-	-	-	-	-	-	1.9	2.3
Actinolite	-	-	-	-	-	-	1.5	1.2	-	-	-	-
Calcite	-	-	1.1	-	-	-	-	0.8	-	3.0	-	1.7
Lizardite	-	0.9	-	-	-	-	-	-	-	-	1.1	-
Calcite magnesian	-	-	0.8	-	-	-	-	-	-	-	-	-
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Mineral List

Mineral	Composition
Quartz	SiO_2
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$
Kaolinite	$Al_2Si_2O_5(OH)_4$
Chamosite	$Fe_3Mg_{1.5}AlFe_{0.5}Si_3AlO_{12}(OH)_6$
Microcline	$KAlSi_3O_8$
Albite	$NaAlSi_3O_8$
Jarosite	$KFe_3(SO_4)_2(OH)_6$
Pyrite	FeS_2
Clinochlore	$(Fe,Mg)_5Al(Si_3Al)O_{10}(OH)_8$
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$
Gypsum	$CaSO_4 \cdot 2H_2O$
Siderite	$FeCO_3$
Rutile	TiO_2
Fluorapatite	$Ca_5(PO_4)_3F$
Actinolite	$Ca_2(Mg,Fe)_5Si_8O_{22}(OH)_2$
Calcite	$CaCO_3$
Lizardite	$Mg_3Si_2O_5(OH)_4$
Calcite magnesian	$(Ca,Mg)CO_3$

Chemical Balance

MW-3V-170-180

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	49.3	-	SQD
Silicon	25.6	29.8	-4.12	Both
Aluminum	9.92	8.16	1.76	Both
Iron	5.91	4.28	1.63	Both
Potassium	3.30	3.11	0.19	Both
Magnesium	1.36	1.56	-0.20	Both
Sodium	0.65	0.91	-0.26	Both
Calcium	0.55	0.88	-0.33	Both
Titanium	0.53	0.52	0.00	Both
Manganese	0.09	-	-	XRF
Phosphorus	0.08	0.43	0.36	Both
Vanadium	0.02	-	-	XRF
Hydrogen	-	0.35	-	SQD
Carbon	-	0.38	-	SQD
Fluorine	-	0.09	-	SQD
Lanthanum	-	0.22	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

MW-3V-180-190

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	48.5	-	SQD
Silicon	32.6	34.7	-2.15	Both
Aluminum	7.10	5.15	1.95	Both
Iron	3.74	3.93	-0.18	Both
Potassium	1.56	1.50	0.06	Both
Sodium	0.57	0.86	-0.29	Both
Titanium	0.44	0.64	-0.20	Both
Magnesium	0.31	0.34	-0.03	Both
Calcium	0.09	0.29	-0.19	Both
Lithium	0.03	-	-	XRF
Manganese	0.01	0.00	0.01	Both
Vanadium	0.01	-	-	XRF
Hydrogen	-	0.23	-	SQD
Carbon	-	0.19	-	SQD
Sulfur	-	3.69	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

Chemical Balance

MW-4V-130-140

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	48.8	-	SQD
Silicon	28.0	31.3	-3.34	Both
Aluminum	8.62	6.86	1.75	Both
Iron	4.64	4.26	0.38	Both
Potassium	2.86	2.69	0.17	Both
Calcium	1.15	1.02	0.14	Both
Magnesium	1.10	1.24	-0.14	Both
Sodium	0.73	0.88	-0.14	Both
Titanium	0.52	0.62	-0.11	Both
Phosphorus	0.08	-	-	XRF
Manganese	0.06	-	-	XRF
Vanadium	0.01	-	-	XRF
Hydrogen	-	0.32	-	SQD
Carbon	-	0.33	-	SQD
Sulfur	-	1.63	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

MW-4V-140-150

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	49.1	-	SQD
Silicon	28.4	31.0	-2.64	Both
Aluminum	8.78	7.45	1.33	Both
Iron	5.03	3.82	1.21	Both
Potassium	2.86	2.90	-0.03	Both
Magnesium	1.17	1.31	-0.15	Both
Sodium	0.76	1.01	-0.26	Both
Titanium	0.54	0.67	-0.13	Both
Calcium	0.46	0.86	-0.40	Both
Manganese	0.07	-	-	XRF
Phosphorus	0.07	0.28	0.21	Both
Vanadium	0.02	-	-	XRF
Hydrogen	-	0.35	-	SQD
Carbon	-	0.11	-	SQD
Fluorine	-	0.06	-	SQD
Sulfur	-	0.88	-	SQD
Lanthanum	-	0.14	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

Chemical Balance

MW-8V-81-84

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	49.4	-	SQD
Silicon	14.3	23.5	-9.19	Both
Aluminum	9.63	9.30	0.33	Both
Iron	2.57	6.68	-4.11	Both
Potassium	2.04	2.99	-0.94	Both
Magnesium	0.55	1.06	-0.52	Both
Titanium	0.44	0.98	-0.54	Both
Calcium	0.22	0.66	-0.44	Both
Sodium	0.15	0.30	-0.16	Both
Lithium	0.04	-	-	XRF
Phosphorus	0.04	-	-	XRF
Vanadium	0.02	-	-	XRF
Hydrogen	-	0.79	-	SQD
Sulfur	-	4.29	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

MW-8V-94-97

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	50.1	-	SQD
Silicon	12.0	30.4	-18.3	Both
Aluminum	6.61	6.22	0.38	Both
Iron	2.52	3.82	-1.30	Both
Potassium	1.30	2.47	-1.18	Both
Titanium	0.38	0.48	-0.11	Both
Magnesium	0.37	1.31	-0.95	Both
Calcium	0.29	0.97	-0.68	Both
Sodium	0.19	0.59	-0.41	Both
Phosphorus	0.06	-	-	XRF
Lithium	0.02	-	-	XRF
Manganese	0.01	-	-	XRF
Vanadium	0.01	-	-	XRF
Hydrogen	-	0.51	-	SQD
Sulfur	-	3.09	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

Chemical Balance

MW-8V-155-160

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	48.8	-	SQD
Silicon	26.8	30.2	-3.39	Both
Aluminum	10.1	9.05	1.08	Both
Iron	5.25	4.07	1.18	Both
Potassium	3.71	3.70	0.01	Both
Magnesium	1.31	1.35	-0.04	Both
Sodium	0.88	0.92	-0.04	Both
Titanium	0.55	0.58	-0.03	Both
Calcium	0.40	0.12	0.28	Both
Phosphorus	0.09	-	-	XRF
Manganese	0.06	0.02	0.04	Both
Vanadium	0.02	-	-	XRF
Hydrogen	-	0.36	-	SQD
Carbon	-	0.10	-	SQD
Sulfur	-	0.72	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

MW-8V-160-165

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	49.6	-	SQD
Silicon	30.9	32.9	-2.00	Both
Aluminum	7.73	7.49	0.24	Both
Iron	4.04	3.08	0.96	Both
Potassium	2.56	2.83	-0.27	Both
Sodium	1.16	1.23	-0.06	Both
Magnesium	1.01	1.02	-0.02	Both
Calcium	0.64	0.42	0.22	Both
Titanium	0.57	0.44	0.13	Both
Phosphorus	0.08	-	-	XRF
Manganese	0.04	0.01	0.03	Both
Vanadium	0.01	-	-	XRF
Hydrogen	-	0.27	-	SQD
Carbon	-	0.18	-	SQD
Sulfur	-	0.54	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

Chemical Balance

MW-9H-40-50

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	50.2	-	SQD
Silicon	31.1	35.0	-3.99	Both
Aluminum	7.65	5.68	1.97	Both
Iron	3.69	3.40	0.29	Both
Potassium	1.86	2.17	-0.31	Both
Magnesium	0.81	0.86	-0.05	Both
Sodium	0.68	0.85	-0.17	Both
Titanium	0.56	0.56	0.00	Both
Calcium	0.11	-	-	XRF
Phosphorus	0.03	-	-	XRF
Manganese	0.01	-	-	XRF
Vanadium	0.01	-	-	XRF
Hydrogen	-	0.28	-	SQD
Sulfur	-	1.02	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

MW-9H-50-60

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	51.1	-	SQD
Silicon	36.4	36.7	-0.32	Both
Aluminum	4.59	4.97	-0.38	Both
Iron	2.55	1.62	0.93	Both
Calcium	1.15	1.19	-0.04	Both
Potassium	1.05	1.34	-0.29	Both
Sodium	1.00	1.32	-0.32	Both
Magnesium	0.58	0.72	-0.14	Both
Titanium	0.44	0.47	-0.03	Both
Phosphorus	0.05	-	-	XRF
Manganese	0.04	-	-	XRF
Hydrogen	-	0.20	-	SQD
Carbon	-	0.36	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

Chemical Balance

MW-12H-60-64

Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	50.5	-	SQD
Silicon	29.5	32.4	-2.91	Both
Aluminum	8.17	7.88	0.29	Both
Iron	5.22	2.39	2.84	Both
Potassium	2.41	2.46	-0.06	Both
Magnesium	0.99	1.00	-0.01	Both
Sodium	0.88	0.90	-0.03	Both
Titanium	0.53	0.47	0.06	Both
Calcium	0.30	0.79	-0.49	Both
Manganese	0.09	-	-	XRF
Phosphorus	0.07	0.32	0.25	Both
Vanadium	0.01	-	-	XRF
Hydrogen	-	0.37	-	SQD
Carbon	-	0.17	-	SQD
Fluorine	-	0.07	-	SQD
Sulfur	-	0.10	-	SQD
Dysprosium	-	0.15	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

MW-12V-120-130

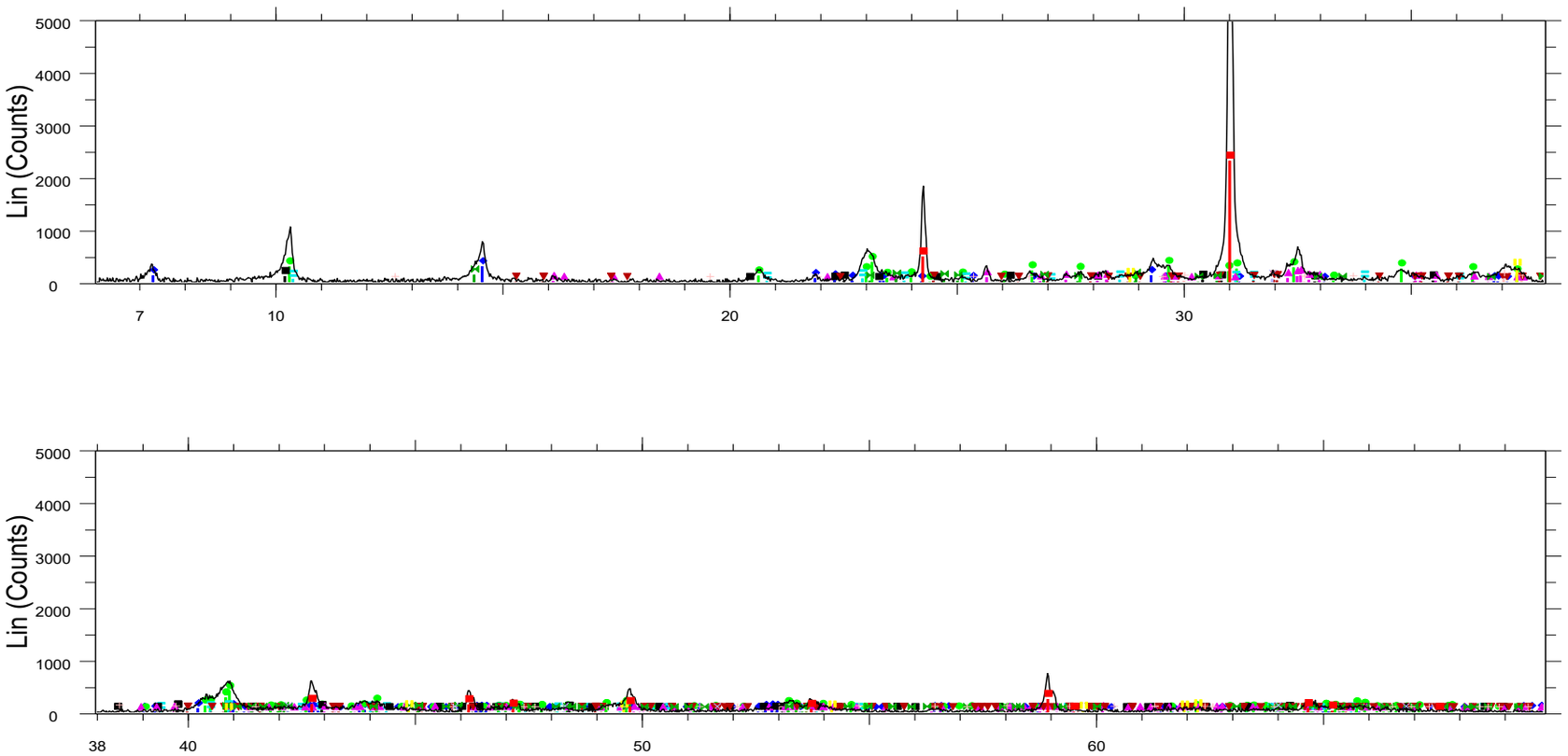
Name	Assay[1]	SQD[2]	Delta	Status
Oxygen	-	49.9	-	SQD
Silicon	29.5	31.3	-1.85	Both
Aluminum	7.82	7.86	-0.04	Both
Iron	4.63	2.88	1.75	Both
Potassium	2.45	2.66	-0.21	Both
Calcium	1.16	1.47	-0.31	Both
Magnesium	1.00	0.86	0.14	Both
Sodium	0.91	1.09	-0.19	Both
Titanium	0.52	0.56	-0.05	Both
Phosphorus	0.07	0.39	-0.31	Both
Manganese	0.06	-	-	XRF
Vanadium	0.02	-	-	XRF
Hydrogen	-	0.32	-	SQD
Carbon	-	0.40	-	SQD
Fluorine	-	0.08	-	SQD
Dysprosium	-	0.18	-	SQD

1. Values measured by chemical assay. Reported in weight percent.

2. Values calculated based on mineral/compound formulas and quantites identified by semi-quantitative XRD.

SGS Canada Inc
Custom XRD/MI4505-FEB22
03/23/2022

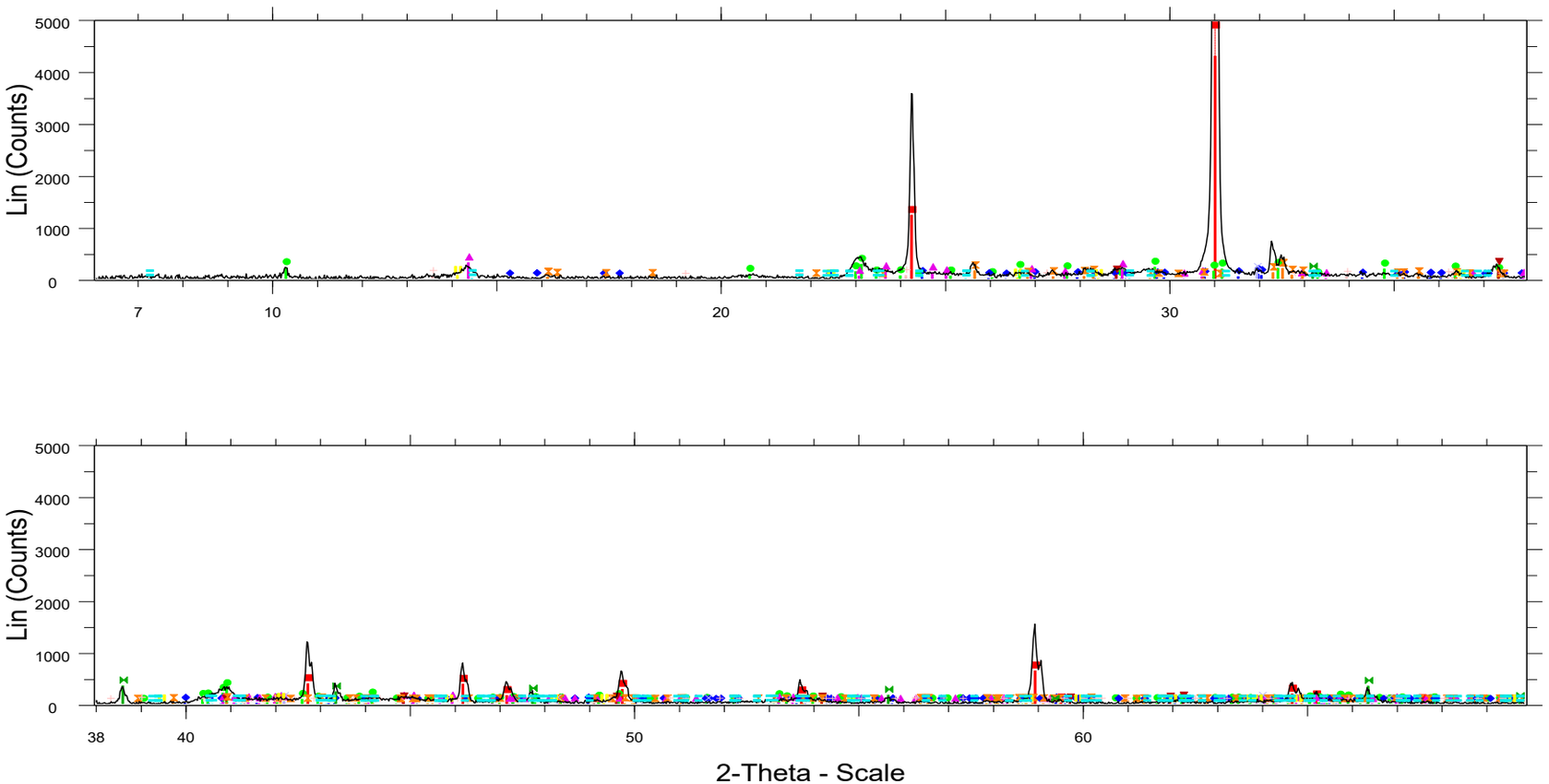
MW-3V-170-180



MW-3V-170-180 - File: FEB4505-1.raw
01-079-1910 (C) - Quartz - SiO2
01-085-2163 (C) - Chamosite - (Mg5.036Fe4.964)Al2.724(Si5.70Al2.30O20)(OH)16
01-084-1302 (C) - Muscovite - KAl3Si3O10(OH)2
00-021-0993 (I) - Muscovite-1M, magnesian - KMgAlSi4O10(OH)2
01-080-1108 (C) - Biotite - KFeMg2(AlSi3O10)(OH)2
01-084-0752 (C) - Albite low - Na(AlSi3O8)
01-084-1455 (C) - Microcline Pellotsalo - K-rich phase - (K.95Na.05)AlSi3O8
01-080-0885 (C) - Kaolinite - Al2(Si2O5)(OH)4
01-083-1009 (C) - Fluorapatite, syn - (Ca3.552Na0.356La0.092)(Ca5.442La0.558)((P5.71
01-083-1764 (C) - Siderite - Fe(CO3)
01-087-0920 (C) - Rutile, syn - TiO2

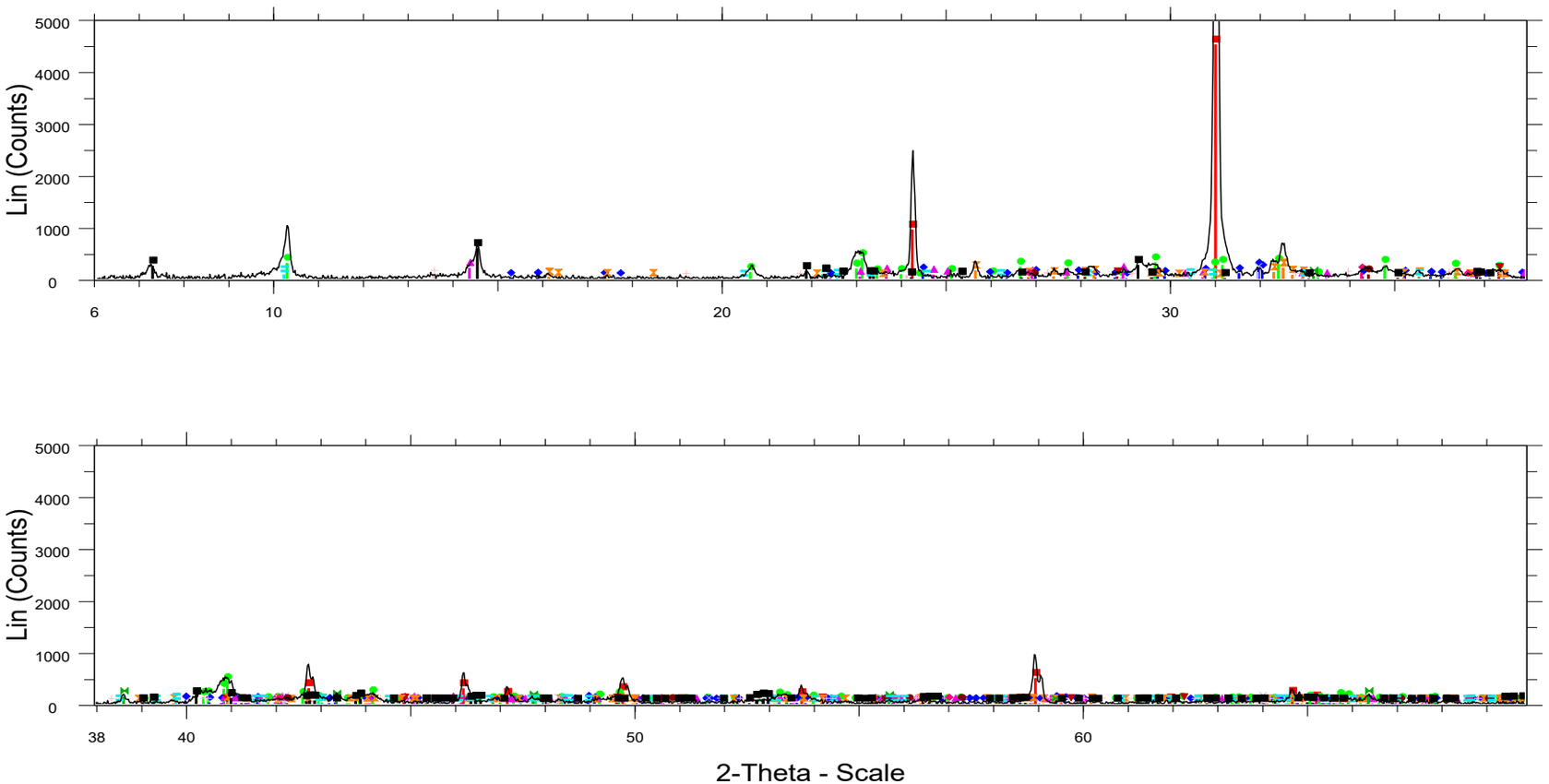
SGS Canada Inc
Custom XRD/MI4505-FEB22
03/23/2022

MW-3V-180-190



SGS Canada Inc
Custom XRD/MI4505-FEB22
03/23/2022

MW-4V-130-140



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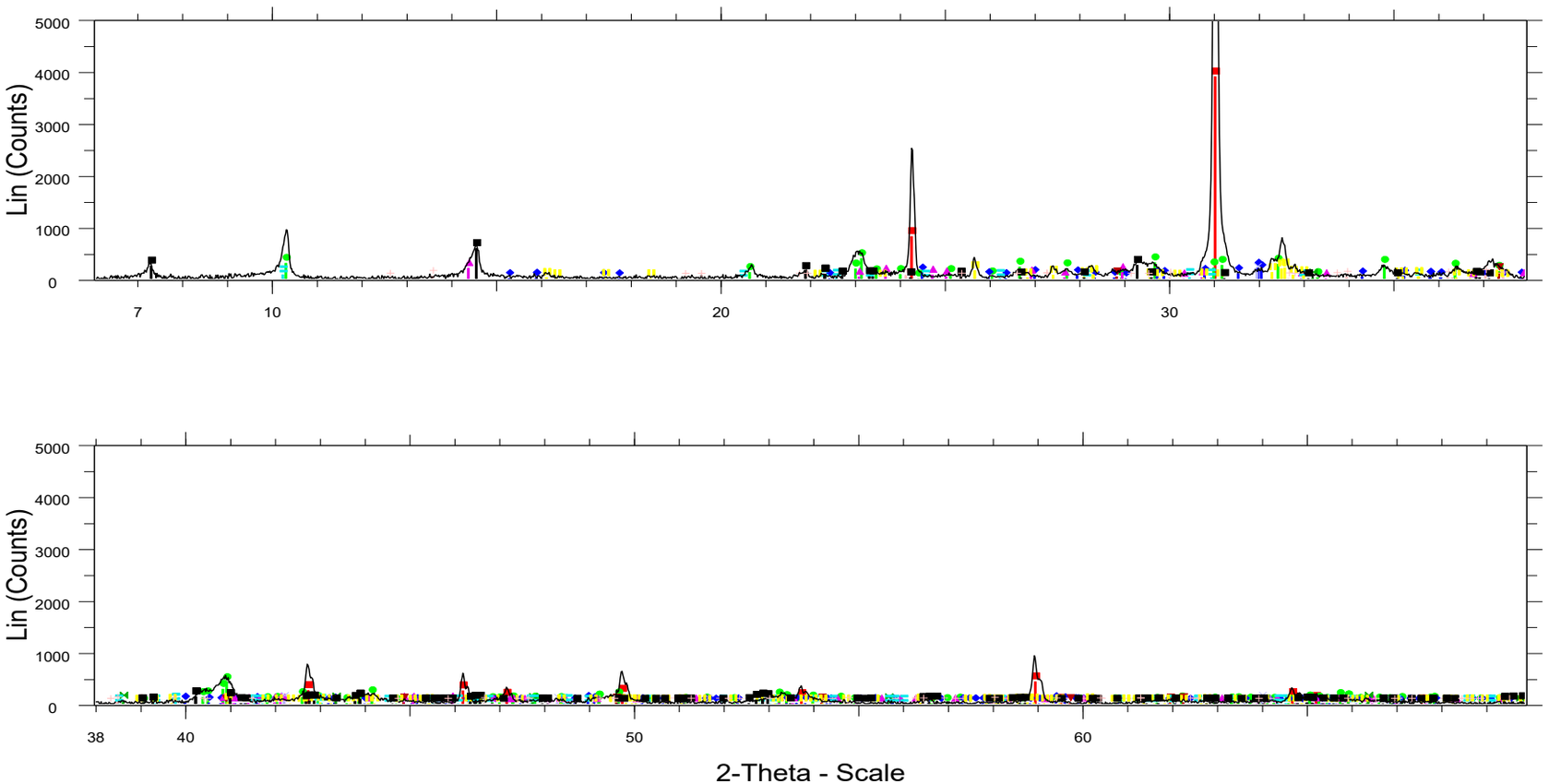
Custom XRD/MI4505-FEB22
03/23/2022

MW-4V-140-150



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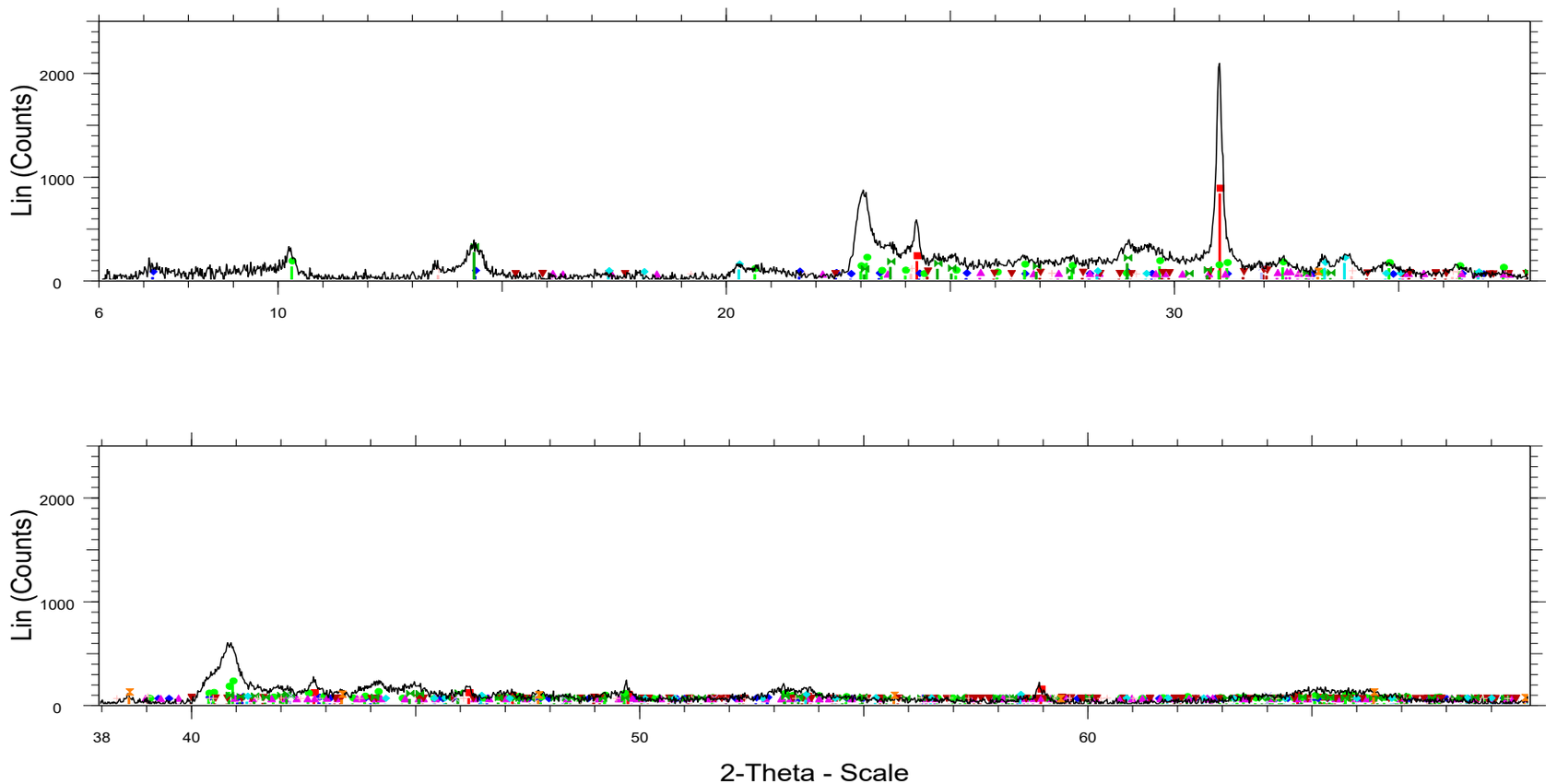
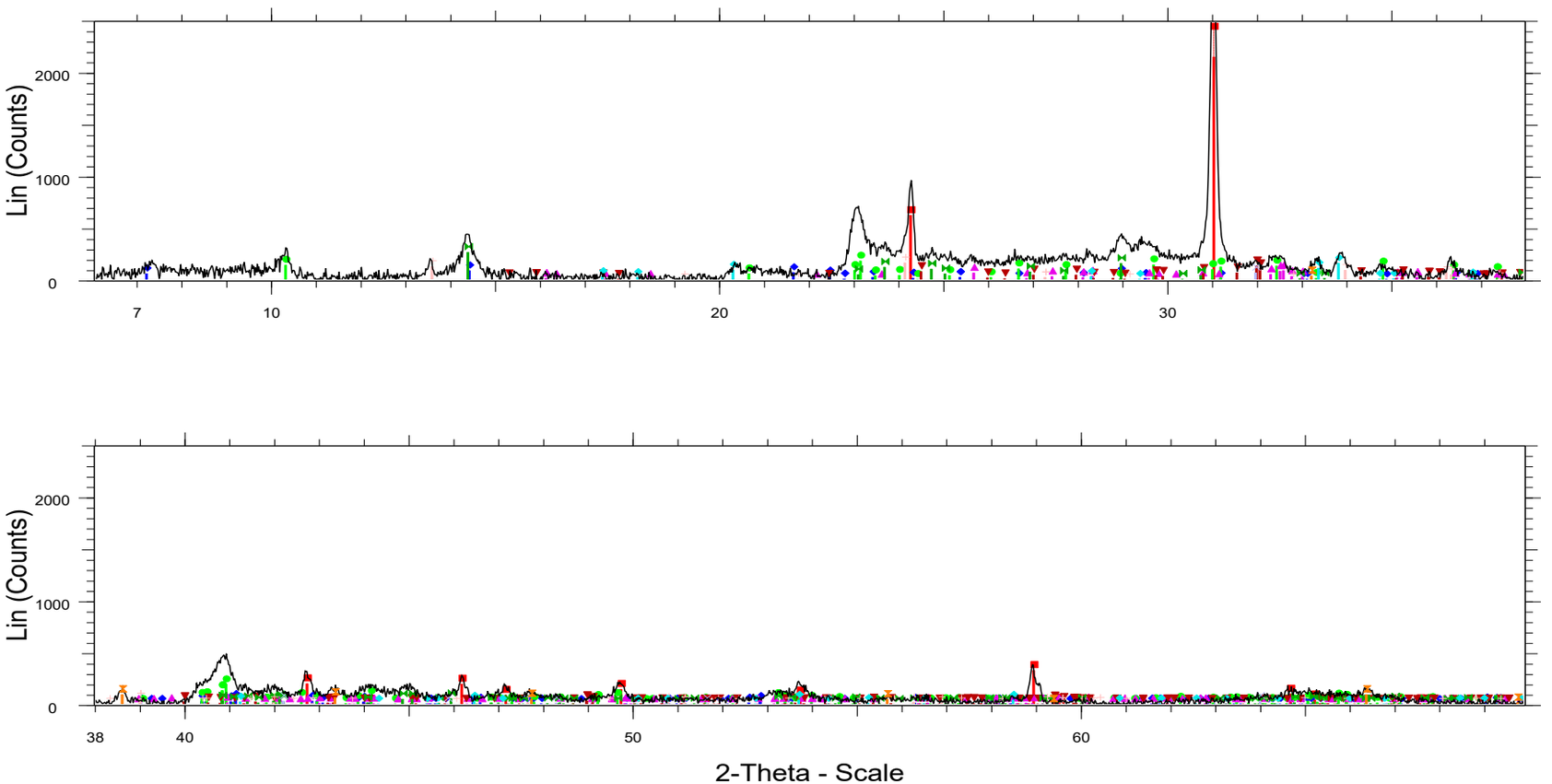
Custom XRD/MI4505-FEB22
03/23/2022

MW-8V-81-84



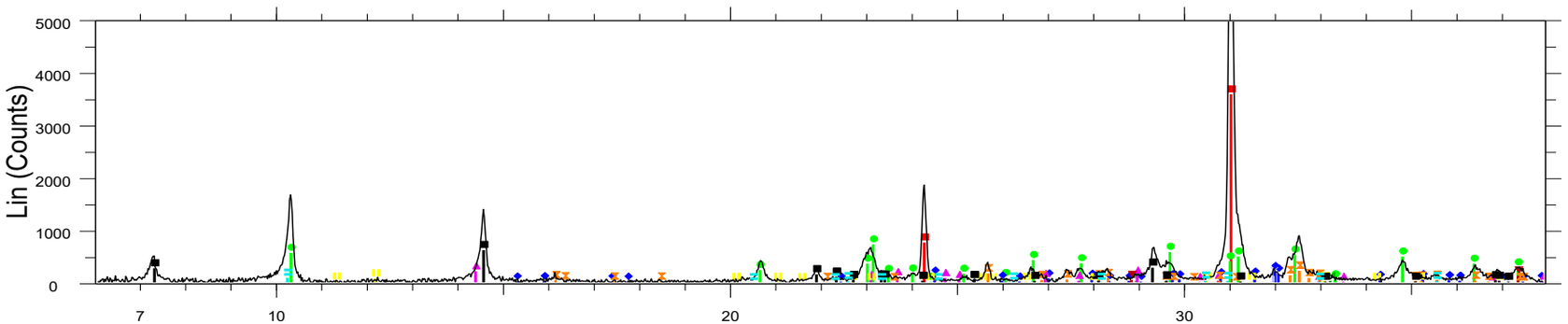
SGS Canada Inc
Custom XRD/MI4505-FEB22
03/23/2022

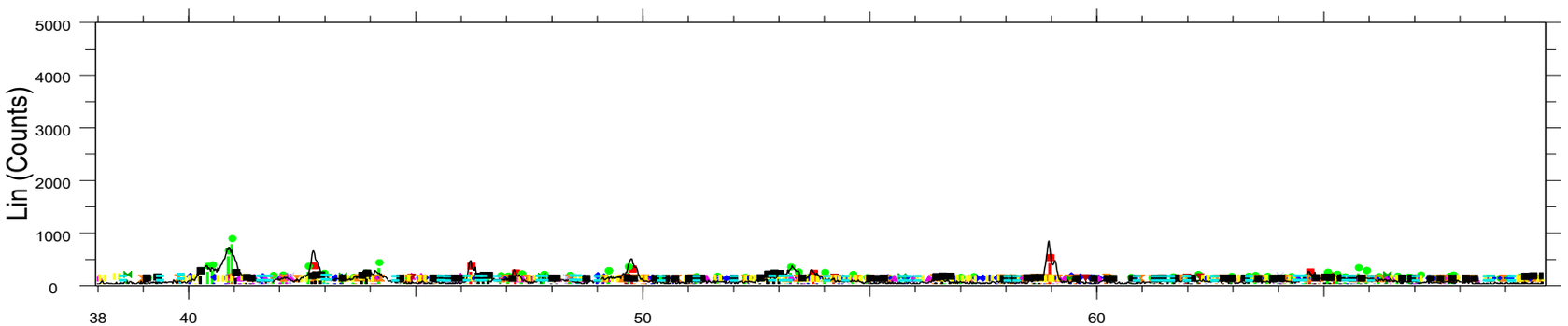
MW-8V-94-97



SGS Canada Inc
Custom XRD/MI4505-FEB22
03/23/2022

MW-8V-155-160





2-Theta - Scale

MW-8V-155-160 - File: FEB4505-7.raw
01-079-1910 (C) - Quartz - SiO2
01-084-1302 (C) - Muscovite - KAl3Si3O10(OH)2
01-084-1455 (C) - Microcline Pellotsalo - K-rich phase - (K.95Na.05)AlSi3O8
01-080-0885 (C) - Kaolinite - Al2(Si2O5)(OH)4
01-083-1764 (C) - Siderite - Fe(CO3)
01-075-1142 (C) - Albite high - Na(AlSi3O8)
01-071-2219 (C) - Pyrite - FeS2
01-087-0920 (C) - Rutile, syn - TiO2
01-073-2339 (C) - Actinolite - Na.08Ca1.76Mn.16Mg1.88Fe2.72Fe.32Al.32Si7.68O22(OH
01-085-2163 (C) - Chamosite - (Mg5.036Fe4.964)Al2.724(Si5.70Al2.30O20)(OH)16
01-080-1109 (C) - Biotite - KFeMg2(AlSi3O10)(OH)2

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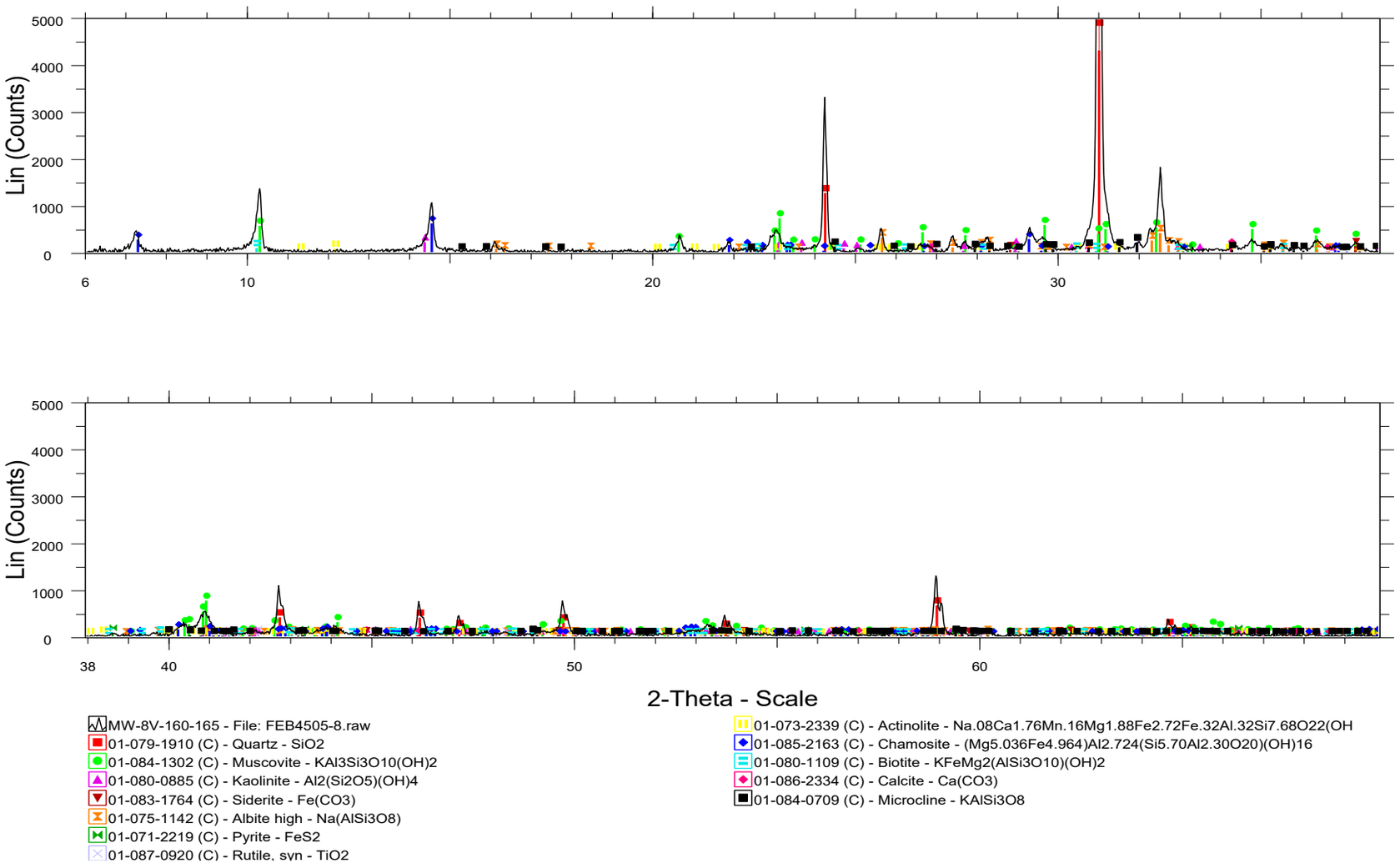
Custom XRD/MI4505-FEB22
03/23/2022

MW-8V-160-165



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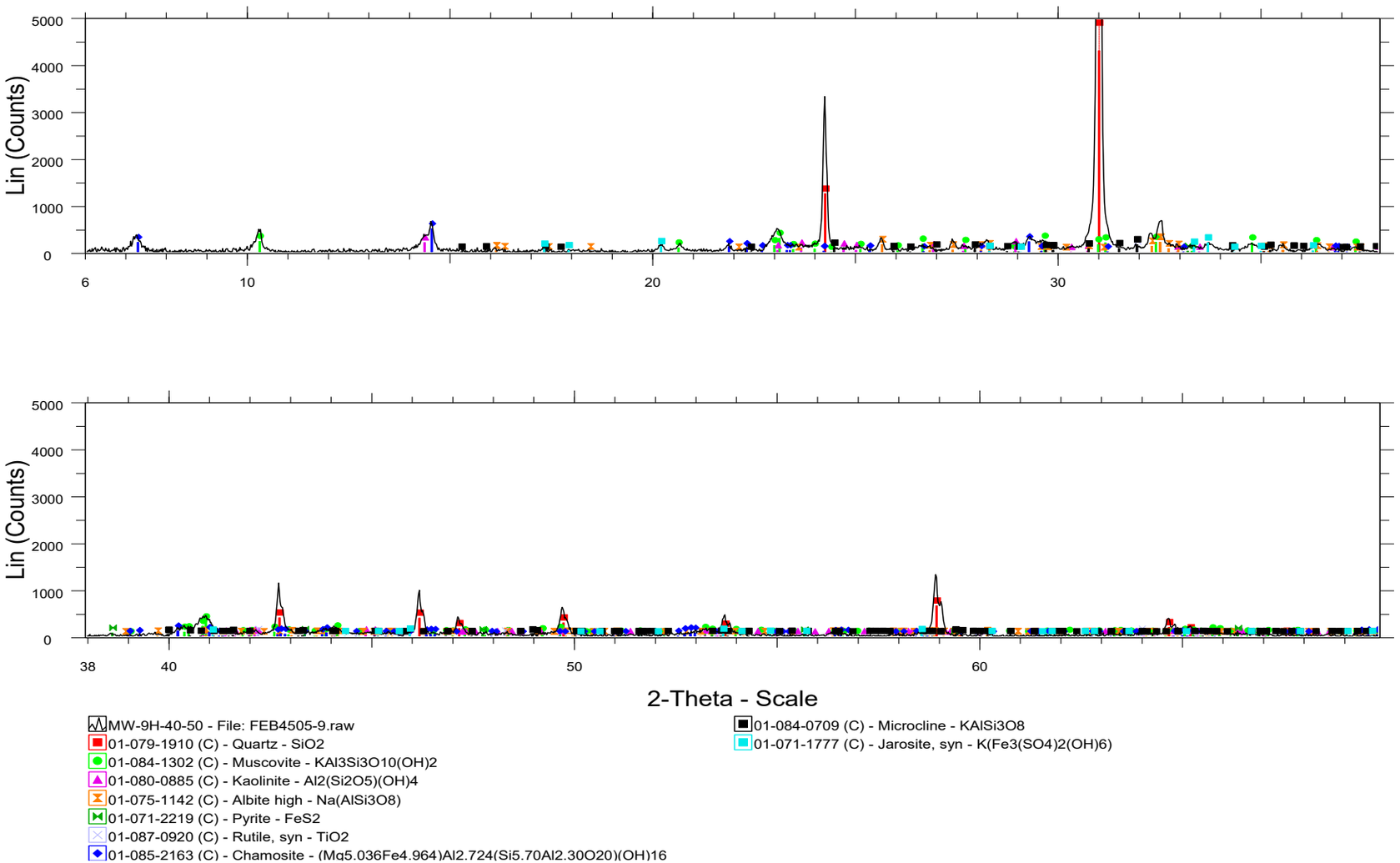
Custom XRD/MI4505-FEB22
03/23/2022

MW-9H-40-50



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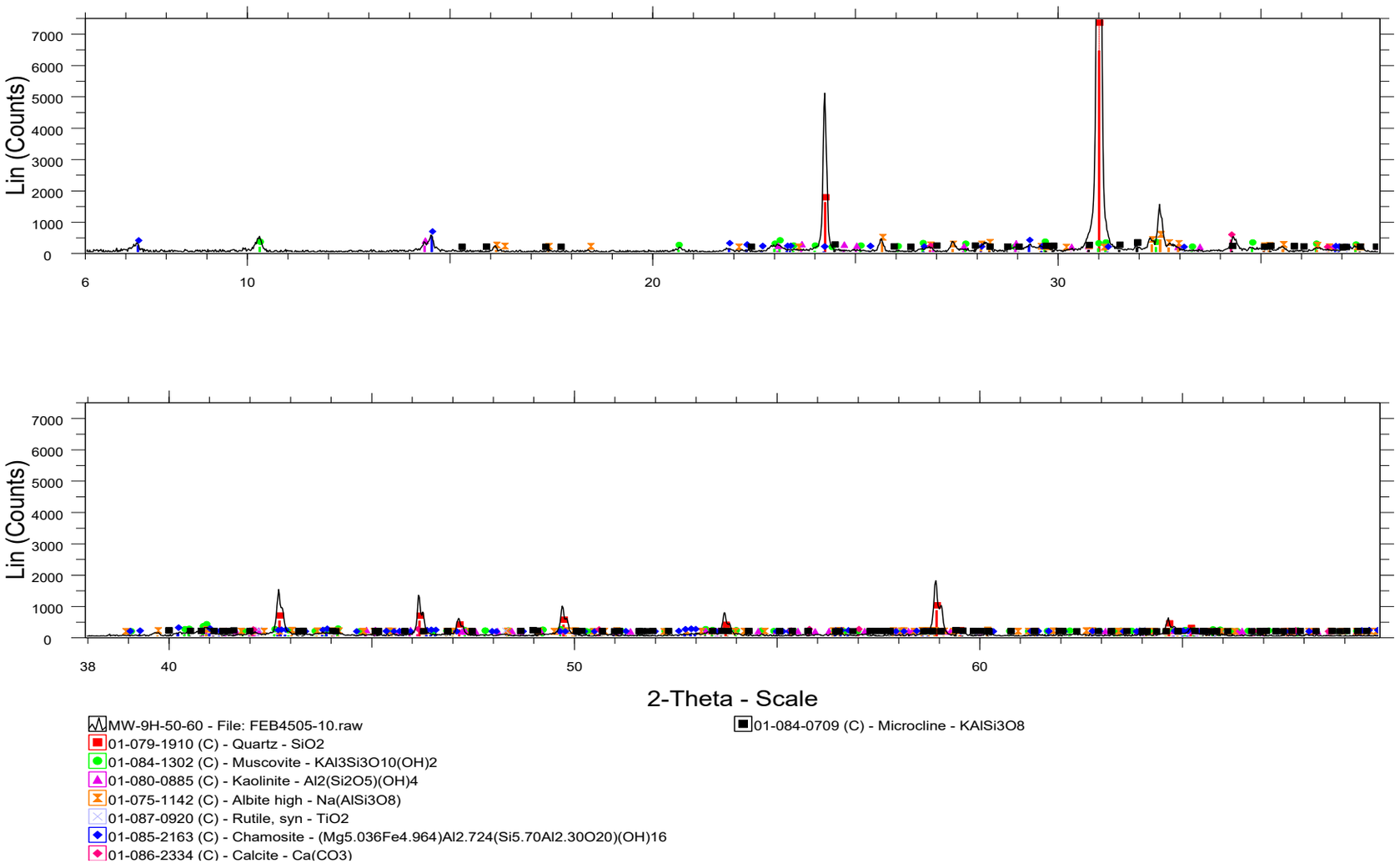
Custom XRD/MI4505-FEB22
03/23/2022

MW-9H-50-60



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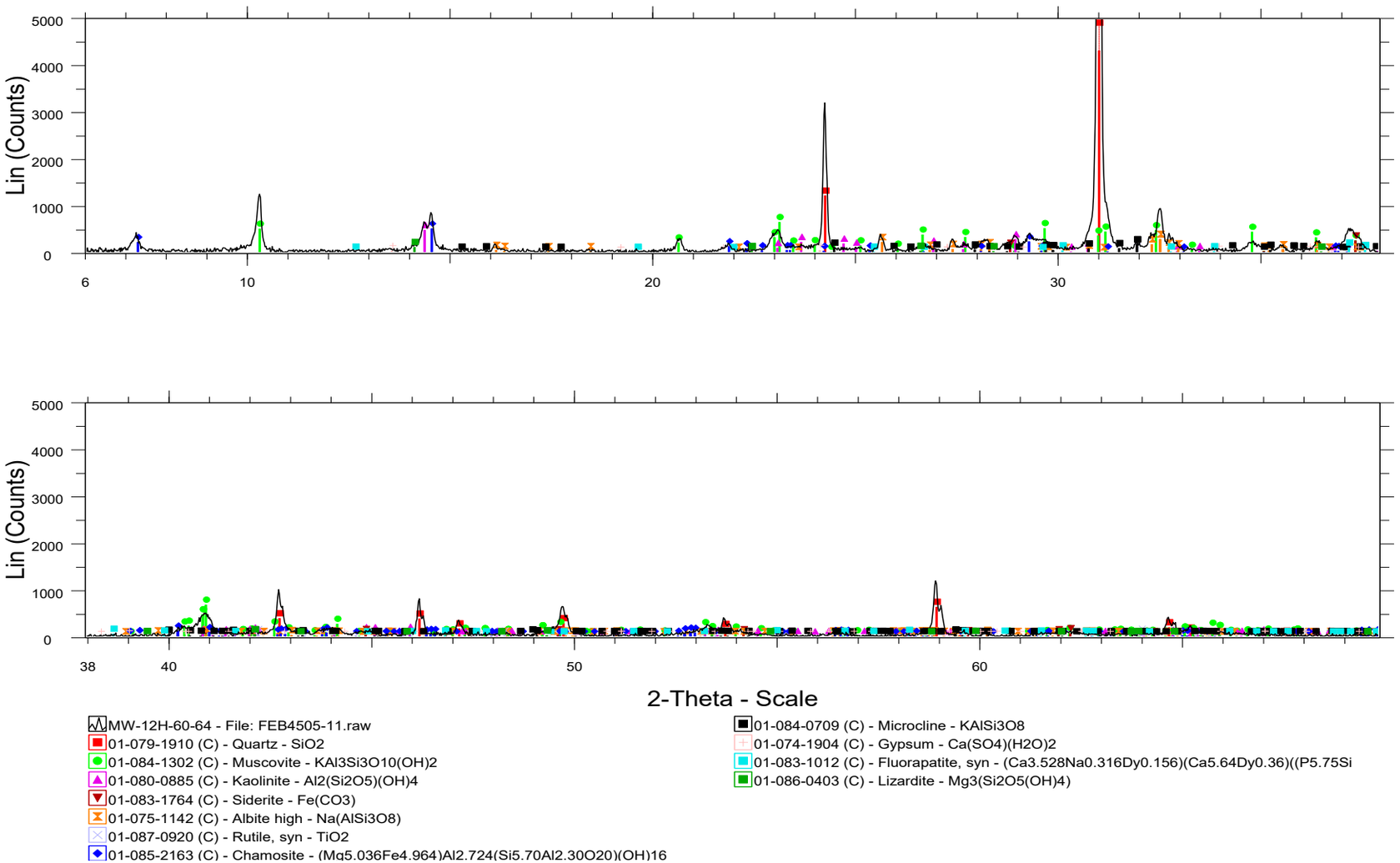
Custom XRD/MI4505-FEB22
03/23/2022

MW-12H-60-64



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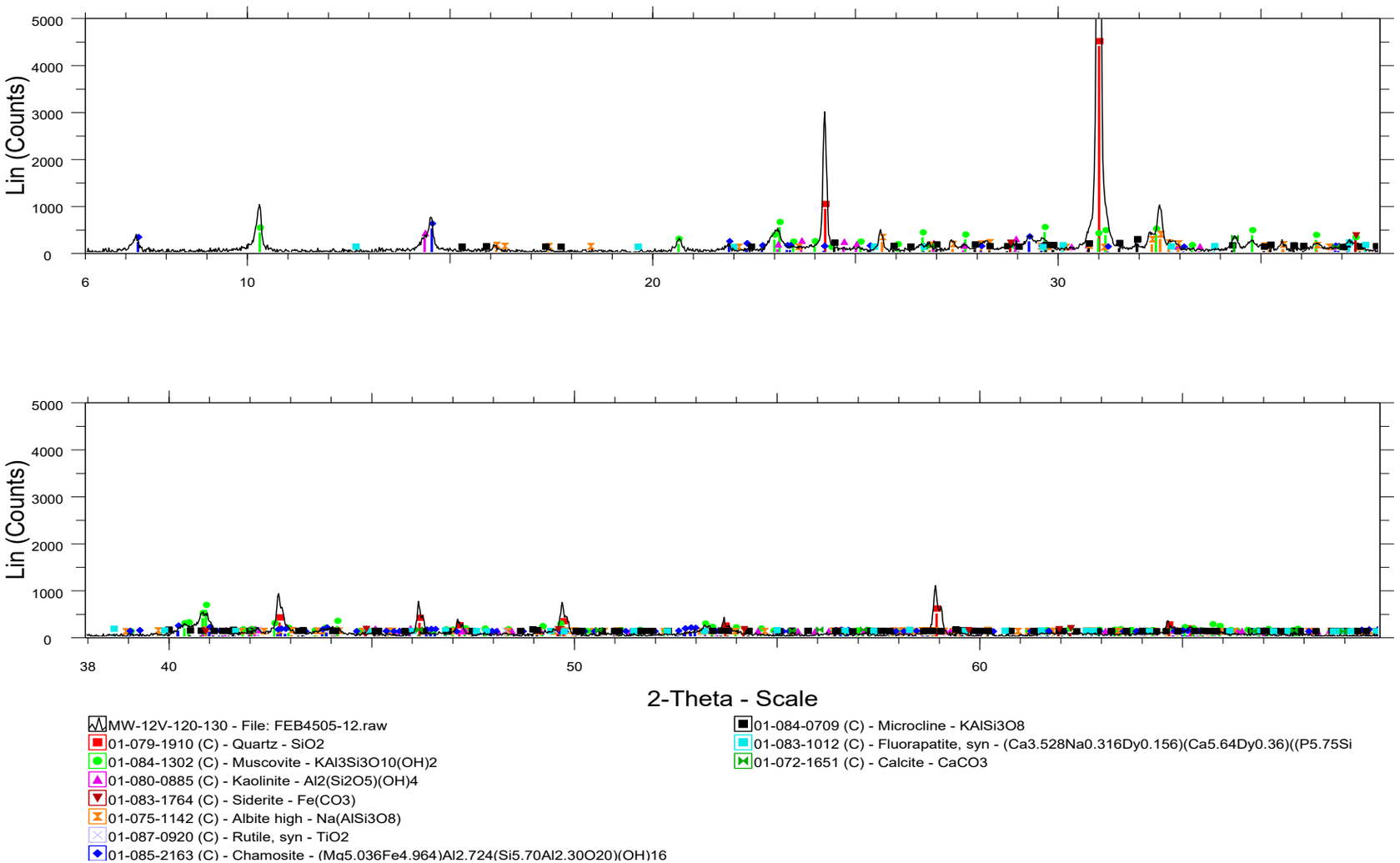
Custom XRD/MI4505-FEB22
03/23/2022

MW-12V-120-130



CLIENT : **Golder Southern Company**
Project : **Golder Southern Company**
SGS Project # : **2204**
TEST : **Synthetic Precipitation Leaching Procedure (EPA Method 1312) at 20:1 Liquid to Solids Ratio Extraction fluid pH 4.2. Filtered at 0.7 microns, analysed for total metals by ICP-MS**
Date : **February 4/2022**

Leachate Analysis **Extraction Fluid #2 (pH 4.2)**

Sample ID				**MW-3V-170-180**	**MW-3V-170-190**	**MW-4V-130-140**	**MW-4V-140-150**	**MW-8V-81-84**	**MW-8V-94-97**	**MW-8V-155-160**	**MW-8V-160-165**	**MW-9H-40-50**	**MW-9H-50-60**	**MW-12H-60-64**	**MW-12V-120-130**
Parameter	**Method**	**Units**	**RDL**												
Volume Extractant		mL	1	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Sample Weight		g	1	100	100	100	100	100	100	100	100	100	100	100	100
Leachate pH (18 Hr)			0.01	8.93	3.83	8.35	8.68	2.50	2.89	9.04	9.35	3.14	9.40	7.94	8.88
pH	meter		0.01	9.15	4.67	7.62	8.87	2.91	3.17	7.29	9.28	3.58	6.30	8.99	8.87
Redox	meter	mV	1	272	281	51	209	469	443	63	138	382	274	245	262
Conductivity	meter	uS/cm	1	119	362	387	104	1527	1008	98	100	839	66	152	136
Acidity (to pH 4.5)	titration	mg CaCO3/L	0.1	0.0	0.0	0.0	0.0	179.8	52.8	0.0	0.0	77.1	0.0	0.0	0.0
Total Acidity (to pH 8.3)	titration	mg CaCO3/L	0.1	0.0	40.8	0.3	0.0	348.6	118.2	0.0	0.0	241.4	0.0	0.0	0.0
Alkalinity	titration	mg CaCO3/L	0.1	37.5	1.3	24.7	30.3	0.0	0.0	30.1	41.4	0.0	10.5	20.4	30.5
Dissolved Metals															
Hardness CaCO3		mg/L	0.05	14.1	86.2	136	28.4	238	262	1.4	6.0	191	19.6	21.6	45.4
Aluminum Al	ICP-MS	mg/L	0.0003	0.236	2.21	0.022	0.122	24.5	7.23	0.353	0.438	33.4	0.252	0.114	0.0456
Antimony Sb	ICP-MS	mg/L	0.0002	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	0.0020	0.0026	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Arsenic As	ICP-MS	mg/L	0.0002	0.0005	0.0018	0.0007	0.0010	0.0096	0.0035	0.0057	0.0142	0.00500	0.00138	0.000558	0.000508
Barium Ba	ICP-MS	mg/L	0.00002	0.0137	0.0469	0.0263	0.00923	0.0201	0.0273	0.00865	0.00675	0.0177	0.00531	0.00744	0.0135
Beryllium Be	ICP-MS	mg/L	0.000007	0.000021	0.005064	< 0.000007	< 0.000007	0.00715	0.00479	0.000040	0.000013	0.00753	< 0.000007	0.000019	< 0.000007
Bismuth Bi	ICP-MS	mg/L	0.000007	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Boron B	ICP-MS	mg/L	0.002	0.088	0.054	0.030	0.069	0.043	0.060	0.096	0.043	0.0577	0.0151	0.0716	0.0286
Cadmium Cd	ICP-MS	mg/L	0.000003	0.000008	0.000069	< 0.000003	0.000007	0.00439	0.00250	< 0.000003	0.000003	0.00133	0.000031	< 0.000003	0.000030
Calcium Ca	ICP-MS	mg/L	0.01	3.56	17.2	36.8	7.33	76.7	84.9	0.37	1.90	24.9	5.71	3.37	10.4
Chromium Cr	ICP-MS	mg/L	0.00003	0.00093	0.00144	0.00021	0.00056	0.01777	0.00822	0.00073	0.00061	0.0148	0.000296	0.000566	0.000476
Cobalt Co	ICP-MS	mg/L	0.000004	0.000348	0.322	0.000121	0.000111	0.495	0.127	0.000406	0.000242	0.435	0.000105	0.000249	0.000019
Copper Cu	ICP-MS	mg/L	0.00002	0.0020	0.0292	0.0009	0.0035	0.881	0.287	0.0016	0.0010	0.238	0.00533	0.00137	0.00241
Iron Fe	ICP-MS	mg/L	0.007	0.477	10.6	0.011	0.100	32.6	12.4	0.404	0.189	34.9	0.0211	0.167	0.0167
Lead Pb	ICP-MS	mg/L	0.00001	0.00066	0.00084	0.00016	0.00030	0.00113	0.00151	0.00119	0.00052	0.000429	0.000390	0.000425	< 0.00009
Lithium Li	ICP-MS	mg/L	0.000006	0.0055	0.134	0.0079	0.0048	0.199	0.0536	0.0019	0.0019	0.136	0.00108	0.00514	0.00225
Magnesium Mg	ICP-MS	mg/L	0.001	1.26	10.5	10.6	2.44	11.3	12.1	0.103	0.295	31.3	1.30	3.21	4.73
Manganese Mn	ICP-MS	mg/L	0.00001	0.00900	0.745	0.0156	0.00155	0.954	3.64	0.00596	0.00248	1.96	0.000500	0.00338	0.000470
Mercury Hg	CVAAS	µg/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
Molybdenum Mo	ICP-MS	mg/L	0.00001	0.00716	0.00021	0.00188	0.00859	0.00129	0.00059	0.01109	0.00433	0.000300	0.00212	0.00210	0.00410
Nickel Ni	ICP-MS	mg/L	0.0001	0.0008	0.374	0.0005	0.0003	1.02	0.264	0.0007	0.0006	1.43	0.000161	0.00105	0.000130
Phosphorus P	ICP-MS	mg/L	0.003	0.016	< 0.003	0.004	0.004	< 0.003	< 0.003	0.042	0.019	< 0.003	0.0140	0.00400	0.0100
Potassium K	ICP-MS	mg/L	0.003	7.93	2.54	10.2	4.29	0.317	0.552	0.920	2.44	0.763	0.879	5.76	2.14
Selenium Se	ICP-MS	mg/L	0.00004	0.00239	0.00029	0.00171	0.00185	0.00582	0.00228	0.00207	0.00236	0.00103	0.00117	0.00111	0.00268
Silicon Si	ICP-MS	mg/L	0.02	1.54	0.87	0.81	1.75	1.02	0.82	1.64	1.43	1.12	1.05	1.33	1.15
Silver Ag	ICP-MS	mg/L	0.000002	< 0.00005	< 0.00005	0.00043	0.00045	< 0.00005	< 0.00005	< 0.00005	0.00013	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Sodium Na	ICP-MS	mg/L	0.01	14.2	6.95	7.18	7.09	1.56	2.35	17.6	15.8	2.76	3.50	14.1	5.59
Strontium Sr	ICP-MS	mg/L	0.00002	0.0397	0.183	0.172	0.0467	0.0987	0.124	0.00099	0.0145	0.0369	0.0240	0.0130	0.0344
Sulphur (S)	ICP-MS	mg/L	0.1	3	40	37	5	160	106	1	2	142	3.73	13.7	11.0
Thallium Tl	ICP-MS	mg/L	0.000005	< 0.000005	0.000125	0.000032	0.000007	0.000034	0.000101	< 0.000005	< 0.000005	0.000005	< 0.000005	0.000009	< 0.000005
Tin Sn	ICP-MS	mg/L	0.00001	0.00040	< 0.00006	< 0.00006	0.00014	< 0.00006	0.00006	< 0.00006	0.00007	< 0.00006	0.000071	0.000065	< 0.00006
Titanium Ti	ICP-MS	mg/L	0.00005	0.00297	0.00006	0.00122	0.00230	0.00032	0.00008	0.00381	0.00343	0.000137	0.00139	0.00139	0.000559
Uranium U	ICP-MS	mg/L	0.000002	0.000045	0.00427	0.000269	0.000130	0.00881	0.00375	0.000162	0.000110	0.00606	0.000013	0.000019	0.000082
Vanadium V	ICP-MS	mg/L	0.00001	0.00119	0.00003	0.00020	0.00054	0.00151	0.00022	0.00159	0.00219	0.00121	0.000966	0.000356	0.000384
Zinc Zn	ICP-MS	mg/L	0.002	0.002	0.208	< 0.002	< 0.002	2.82	0.402	< 0.002	< 0.002	1.30	0.0117	< 0.002	0.00985
Zirconium Zr	ICP-MS	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

CLIENT: Golder
PROJECT: Southern Company
SGS Project #: 2204
Test: Metals by Aqua Regia Digestion with ICP-MS/ AES Finish
Date: 16 Feb 22

Sample ID	Ag ppm	Al %	Ba ppm	Ca %	Cr ppm	Cu ppm	Fe %	K %	Li ppm	Mg %
Method Code	ICM21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20
LOD	0.01	0.01	5	0.01	1	0.5	0.01	0.01	1	0.01
MW-3V-170-180	0.08	1.87	231	0.52	27	47.6	5.02	0.39	40	0.94
MW-3V-180-190	0.02	0.68	134	0.07	8	12.1	3.17	0.16	43	0.11
MW-4V-130-140	0.06	1.51	179	1.11	23	33.4	3.93	0.32	30	0.74
MW-4V-140-150	0.07	1.45	85	0.43	22	32.7	4.25	0.28	30	0.81
MW-8V-81-84	0.2	0.71	256	0.19	17	66	1.37	0.18	39	0.17
MW-8V-94-97	0.22	0.52	272	0.3	17	52.9	1.66	0.13	20	0.14
MW-8V-155-160	0.09	1.71	189	0.37	23	43.2	4.22	0.32	35	0.83
MW-8V-160-165	0.05	1.36	140	0.59	20	26.8	3.43	0.26	27	0.72
MW-9H-40-50	0.06	1.38	240	0.09	20	17.2	3.15	0.19	42	0.59
MW-9H-50-60	0.03	0.8	74	1.1	14	10.9	2.28	0.13	14	0.45
MW-12H-60-64	0.09	1.28	138	0.26	20	39.2	4.62	0.25	23	0.74
MW-12V-120-130	0.1	1.33	105	1.1	21	34.5	3.99	0.23	25	0.72
Duplicates										
*Rep MW-12V-120-130	0.09	1.23	96	1.02	19	31.8	3.69	0.21	23	0.67
QC										
OREAS 260	0.15	1.26	143	0.87	48	46.8	3.61	0.26	20	0.59
Certified Values	0.146	1.33	151	0.885	49.2	46.5	3.73	0.285	21.5	0.593
Tolerance (%)	30.77	12.80	20.12	14.46	16.31	13.55	11.33	23.08	24.25	14.55
OREAS 502c	0.77	1.97	390	1.05	60	7850	4.35	1.05	29	1.2
Certified Values	0.796	2.07	383	1.09	66.0	7790	4.45	1.07	30.9	1.21
Tolerance (%)	13.14	11.21	13.26	12.29	13.79	10.02	10.56	12.34	18.09	12.07

CLIENT: Golder
PROJECT: Southern Company
SGS Project #: 2204
Test: Metals by Aqua Regia Digest
Date: 16 Feb 22

Sample ID	Ag ppm	Mn ppm	Na %	Ni ppm	P %	S %	Sr ppm	Ti %	V ppm	Zn ppm	Zr ppm
Method Code	ICM21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20	ICP21B20
LOD	0.01	2	0.01	0.5	0.005	0.01	0.5	0.01	1	1	0.5
MW-3V-170-180	0.08	884	0.04	47	0.07	0.09	44	<0.01	40	116	10.8
MW-3V-180-190	0.02	119	0.05	21	<0.01	1.75	15.4	<0.01	12	27	8.4
MW-4V-130-140	0.06	515	0.03	45	0.07	0.95	45.9	<0.01	31	114	10.6
MW-4V-140-150	0.07	723	0.03	35	0.06	0.25	26.7	<0.01	32	107	10.2
MW-8V-81-84	0.2	48	0.04	35	0.02	1.21	72.5	0.01	36	84	11.4
MW-8V-94-97	0.22	127	0.04	21	0.03	1.49	136	0.02	36	31	10.6
MW-8V-155-160	0.09	495	0.06	40	0.08	0.19	33.3	<0.01	31	119	12.1
MW-8V-160-165	0.05	405	0.05	38	0.08	0.21	33	0.01	29	125	12.9
MW-9H-40-50	0.06	191	0.03	41	0.03	0.81	11.5	0.01	25	78	11.4
MW-9H-50-60	0.03	397	0.02	21	0.04	0.08	37.1	<0.01	15	52	7.4
MW-12H-60-64	0.09	740	0.04	39	0.06	0.18	16.8	0.02	35	109	11.5
MW-12V-120-130	0.1	567	0.02	33	0.07	0.09	49	0.01	33	106	11
Duplicates											
*Rep MW-12V-120-130	0.09	532	0.03	30	0.06	0.09	45.4	0.01	30	98	10.8
QC											
OREAS 260	0.15	422	0.08	80	0.04	0.08	13.9	<0.01	21	119	15.3
Certified Values	0.146	450	0.082	75	0.04	0.077	14.8	BDL	22.0	125	12.6
Tolerance (%)	30.77	11.76	46.15	14.29	66.67	66.67	20.32	BDL	23.9	12.77	#N/A
OREAS 502c	0.77	359	0.2	35	0.1	0.8	65.6	0.34	116	94	9.2
Certified Values	0.796	380	0.192	36.4	0.096	0.821	66.0	BDL	110.0	102	BDL
Tolerance (%)	13.14	11.32	23.02	16.87	23.02	13.05	11.89		12.3	12.45	

CLIENT: Golder
PROJECT: Southern Company
SGS Project #: 2204
Test: Metals by Aqua Regia Digest
Date: 16 Feb 22

Sample ID	Ag ppm	As ppm	Be ppm	Bi ppm	Cd ppm	Ce ppm	Co ppm	Cs ppm	Ga ppm	Ge ppm	Hf ppm
Method Code	ICM21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20
LOD	0.01	1	0.1	0.02	0.01	0.05	0.1	0.05	0.1	0.1	0.05
MW-3V-170-180	0.08	5	1.1	0.4	0.12	37.8	18.5	2.23	7.5	0.1	0.29
MW-3V-180-190	0.02	38	0.7	0.16	0.02	48.31	12.1	2.98	2.3	0.1	0.2
MW-4V-130-140	0.06	18	0.9	0.31	0.1	32.22	17.6	1.93	6.4	0.1	0.29
MW-4V-140-150	0.07	9	1	0.3	0.09	36.62	14.6	2.05	6.2	0.1	0.3
MW-8V-81-84	0.2	49	1	0.59	0.18	25.91	12.7	2.81	2.8	<0.1	0.4
MW-8V-94-97	0.22	43	1.1	0.42	0.13	29.86	6.8	2.06	2.2	<0.1	0.38
MW-8V-155-160	0.09	14	1.1	0.33	0.12	51.4	18.6	1.84	7	0.1	0.32
MW-8V-160-165	0.05	13	0.7	0.24	0.14	44.37	16.4	1.31	5.6	0.1	0.37
MW-9H-40-50	0.06	28	0.6	0.18	0.06	32.79	13.7	1.9	5.6	0.1	0.33
MW-9H-50-60	0.03	4	0.3	0.06	0.04	26.54	9.2	0.44	3.2	0.1	0.26
MW-12H-60-64	0.09	9	1	0.27	0.17	41.76	15.1	1.36	6.2	0.1	0.34
MW-12V-120-130	0.1	9	0.7	0.26	0.18	41.11	14.9	1.33	5.8	<0.1	0.31
Duplicates											
*Rep MW-12V-120-130	0.09	8	0.7	0.24	0.16	37.6	13.3	1.17	5.3	<0.1	0.29
QC											
OREAS 260	0.15	12	1.1	0.54	0.2	63.36	31.4	2.71	4.7	0.1	0.4
Certified Values	0.146	12.5	1.24	0.54	0.21	55	32.10	3.12	5.05	BDL	0.33
Tolerance (%)	30.77	35.29	35.07	20.41	27.03	#N/A	11.39	#N/A	16.04	BDL	#N/A
OREAS 502c	0.77	59	0.4	0.66	0.3	58.93	12.7	9.03	9.4	0.3	0.38
Certified Values	0.796	59	0.53	0.68	BDL	59	13.50	9.02	8.67	BDL	0.41
Tolerance (%)	13.14	14.24	57.17	17.35		10.21	11.85	11.39	12.88		40.49

CLIENT: Golder
PROJECT: Southern Company
SGS Project #: 2204
Test: Metals by Aqua Regia Digest
Date: 16 Feb 22

Sample ID	Ag ppm	Hg ppm	In ppm	La ppm	Lu ppm	Mo ppm	Nb ppm	Pb ppm	Rb ppm	Sb ppm	Sc ppm
Method Code	ICM21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20
LOD	0.01	0.01	0.02	0.1	0.01	0.05	0.05	0.2	0.2	0.05	0.1
MW-3V-170-180	0.08	0.01	0.04	14.3	0.17	1.46	0.07	24.3	31.9	0.3	6.3
MW-3V-180-190	0.02	0.08	0.03	16.5	0.09	0.89	<0.05	16.4	16.2	1.07	2.8
MW-4V-130-140	0.06	0.05	0.04	12	0.16	1.08	0.09	20.7	28.4	0.37	4.9
MW-4V-140-150	0.07	0.02	0.04	14	0.14	0.61	0.09	17.7	26.7	0.13	5.3
MW-8V-81-84	0.2	0.45	0.04	10.2	0.14	5.58	0.51	30.9	18.5	0.84	5
MW-8V-94-97	0.22	0.5	0.04	12.7	0.13	6.37	0.56	24.2	14	0.6	5.5
MW-8V-155-160	0.09	0.02	0.03	19.7	0.17	2.31	<0.05	23.1	24.6	0.35	4.7
MW-8V-160-165	0.05	0.02	0.03	16.8	0.12	0.85	0.08	19.8	19.6	0.47	3.2
MW-9H-40-50	0.06	0.08	0.03	13.1	0.09	0.4	0.21	10.1	16	0.25	3.3
MW-9H-50-60	0.03	<0.01	<0.02	9.9	0.1	0.61	<0.05	7.9	9.2	0.13	3
MW-12H-60-64	0.09	0.02	0.03	16.4	0.16	1.2	0.16	18.6	20.1	0.33	5.9
MW-12V-120-130	0.1	0.03	0.03	15.6	0.15	1.37	0.11	18.4	19.7	0.38	5.6
Duplicates											
*Rep MW-12V-120-130	0.09	0.01	0.03	14.5	0.14	1.26	0.1	16.7	17.3	0.34	5.2
QC											
OREAS 260	0.15	0.05	0.03	31.2	0.15	0.39	<0.05	30.5	22.6	1.27	3.2
Certified Values	0.146	0.047	0.027	28.1	0.140	0.43	BDL	30.7	21.2	1.32	3.39
Tolerance (%)	30.77	#N/A	90.91	#N/A	33.33	49.28	BDL	12.35	#N/A	21.85	19.06
OREAS 502c	0.77	0.03	0.06	29.6	0.23	228	1.44	11.3	125	4.67	7.1
Certified Values	0.796	BDL	0.061	29.4	0.220	223.00	BDL	11.1	124.0	4.78	7.28
Tolerance (%)	13.14		91.97	10.85	21.36	10.06		14.50	10.4	12.62	13.43

CLIENT: Golder
PROJECT: Southern Company
SGS Project #: 2204
Test: Metals by Aqua Regia Digest
Date: 16 Feb 22

Sample ID	Ag ppm	Se ppm	Sn ppm	Ta ppm	Tb ppm	Te ppm	Th ppm	Tl ppm	U ppm	W ppm	Y ppm	Yb ppm
Method Code	ICM21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20	IMS21B20
LOD	0.01	1	0.3	0.05	0.02	0.05	0.1	0.02	0.05	0.1	0.05	0.1
MW-3V-170-180	0.08	<1	0.6	<0.05	0.71	<0.05	7.7	0.05	1.24	<0.1	14.48	1.1
MW-3V-180-190	0.02	<1	0.5	<0.05	0.56	<0.05	5.7	0.18	0.98	<0.1	7.87	0.6
MW-4V-130-140	0.06	<1	0.7	<0.05	0.7	<0.05	7.4	0.09	1.2	0.3	14.22	1
MW-4V-140-150	0.07	<1	0.5	<0.05	0.64	<0.05	7	0.06	1.02	<0.1	12.02	0.9
MW-8V-81-84	0.2	5	0.7	<0.05	0.47	0.09	5.6	0.33	1.54	<0.1	10.62	0.9
MW-8V-94-97	0.22	7	0.5	<0.05	0.45	<0.05	5.6	0.34	1.51	0.1	10.6	0.9
MW-8V-155-160	0.09	<1	0.5	<0.05	1	<0.05	8.8	0.06	1.43	<0.1	17.53	1.2
MW-8V-160-165	0.05	1	0.5	<0.05	0.6	<0.05	8.1	0.06	1.23	<0.1	10.92	0.8
MW-9H-40-50	0.06	<1	0.5	<0.05	0.37	<0.05	4.8	0.09	0.83	<0.1	7.31	0.6
MW-9H-50-60	0.03	<1	<0.3	<0.05	0.48	<0.05	4.7	0.05	0.51	0.2	9.57	0.7
MW-12H-60-64	0.09	1	0.6	<0.05	0.74	<0.05	7.3	0.06	1.19	0.6	14.58	1.1
MW-12V-120-130	0.1	<1	0.5	<0.05	0.7	<0.05	7.5	0.05	1.2	<0.1	15.45	1.2
Duplicates												
*Rep MW-12V-120-130	0.09	<1	0.5	<0.05	0.66	<0.05	6.9	0.05	1.13	<0.1	13.86	1.1
QC												
OREAS 260	0.15	<1	0.5	<0.05	0.53	0.06	11.1	0.21	1.31	<0.1	11.85	1
Certified Values	0.146	BDL	0.62	BDL	0.52	0.081	11.30	0.22	1.29	BDL	11.7	0.99
Tolerance (%)	30.77	BDL	#N/A	BDL	21.28	89.66	13.01	37.84	21.46	BDL	11.76	42.94
OREAS 502c	0.77	4	2.7	<0.05	0.57	0.51	16.8	0.69	4.47	2.7	15.77	1.4
Certified Values	0.796	BDL	2.71	0.009	0.58	0.47	17.60	0.34	4.53	2.98	16.1	1.51
Tolerance (%)	13.14		37.68	1398.9	18.62	36.60	11.42	17.35	12.76	18.39	10.78	26.56

CLIENT: Golder
PROJECT: Southern Company
SGS Project #: 2204
Test: Metals by Multi Acid Digestion with ICP-MS/ AES Finish
Date: 16 Feb 22

Sample ID	**Ag ppm**	**Al %**	**Ba ppm**	**Ca %**	**Cr ppm**	**Cu ppm**	**Fe %**	**K %**	**Li ppm**	**Mg %**
Method Code	ICM40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12
LOD	0.02	0.01	1	0.01	1	0.5	0.01	0.01	1	0.01
MW-3V-170-180	0.04	11.71	1077	0.66	119	51	7.14	3.88	97	1.63
MW-3V-180-190	<0.02	7.95	562	0.11	53	10.3	4.63	1.77	299	0.34
MW-4V-130-140	<0.02	10.14	1077	1.35	92	31.2	5.61	3.37	69	1.26
MW-4V-140-150	<0.02	9.81	792	0.54	89	31.2	6.1	3.19	67	1.32
MW-8V-81-84	0.18	11.34	1100	0.27	111	73.2	3.02	2.36	367	0.69
MW-8V-94-97	0.13	7.82	704	0.34	73	57.3	3.24	1.48	243	0.43
MW-8V-155-160	0.06	11.91	1205	0.49	99	45	6.23	4.31	72	1.56
MW-8V-160-165	<0.02	8.72	842	0.72	74	25.9	5.01	2.9	50	1.18
MW-9H-40-50	0.02	9.09	989	0.13	66	16.1	4.49	2.22	128	0.96
MW-9H-50-60	<0.02	5.4	382	1.35	37	10	3.04	1.21	30	0.65
MW-12H-60-64	0.04	9.48	825	0.36	73	38.5	6.63	2.76	56	1.18
MW-12V-120-130	0.08	8.2	723	1.2	67	32.8	5.31	2.61	52	1.07
Duplicate										
*Rep MW-9H-50-60	<0.02	5.61	402	1.4	45	11.1	3.16	1.25	31	0.68
QC										
OREAS 601b	45.21	6.3	1516	0.83	23	961	2.28	2.31	22	0.1
Certified Values	50.1	6.63	BDL	0.887	23.7	0.101	2.29	2.41	22.6	996
Tolerance (%)	10.4	10.1		14.9	37.6	6.79	10.7	9.40	26.3	20.0

CLIENT: Golder
PROJECT: Southern Com
SGS Project #: 2204
Test: Metals by Multi Acid
Date: 16 Feb 22

Sample ID	Mn ppm	Na %	Ni ppm	P %	S %	Sr ppm	Ti %	V ppm	Zn ppm	Zr ppm
Method Code	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12
LOD	2	0.01	1	0.01	0.01	0.5	0.01	2	1	0.5
MW-3V-170-180	1196	0.75	56	0.09	0.12	158	0.48	175	145	127
MW-3V-180-190	161	0.64	32	0.01	1.97	60.3	0.37	90	40	96.2
MW-4V-130-140	667	0.88	52	0.1	1.17	150	0.43	148	134	131
MW-4V-140-150	936	0.84	42	0.07	0.3	123	0.44	147	128	129
MW-8V-81-84	93	0.18	50	0.05	1.68	235	0.46	175	115	117
MW-8V-94-97	171	0.22	28	0.06	1.82	297	0.36	135	45	99.6
MW-8V-155-160	694	1.02	46	0.1	0.23	132	0.45	174	155	141
MW-8V-160-165	542	1.32	43	0.09	0.25	123	0.42	130	145	144
MW-9H-40-50	264	0.81	48	0.04	0.96	85.5	0.45	105	104	133
MW-9H-50-60	504	1.17	23	0.06	0.1	105	0.31	61	63	133
MW-12H-60-64	1029	1	45	0.07	0.21	109	0.43	123	130	120
MW-12V-120-130	706	0.95	36	0.08	0.11	130	0.36	118	123	116
Duplicate										
*Rep MW-9H-50-60	522	1.2	25	0.06	0.1	109	0.34	64	63	149
QC										
OREAS 601b	238	1.8	6	0.03	1.43	242	0.12	10	295	184
Certified Values	222	1.90	6.54	292	1.50	241	0.135	12.1	318	186
Tolerance (%)	11.1	14.3	30.9	15.1	7.20	14.7	11.8	21.7	5.55	17.0

CLIENT: Golder
PROJECT: Southern Com
SGS Project #: 2204
Test: Metals by Multi Acid
Date: 16 Feb 22

Sample ID	**As ppm**	**Be ppm**	**Bi ppm**	**Cd ppm**	**Ce ppm**	**Co ppm**	**Cs ppm**	**Ga ppm**	**Hf ppm**	**In ppm**
Method Code	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12
LOD	1	0.1	0.04	0.02	0.05	0.1	1	0.1	0.02	0.02
MW-3V-170-180	11	3.5	0.46	0.13	106	21.5	12	32.5	3.6	0.1
MW-3V-180-190	61	2.3	0.21	0.04	87.44	16.5	9	18.9	2.88	0.07
MW-4V-130-140	29	2.8	0.33	0.12	88.43	20.1	9	27	3.47	0.09
MW-4V-140-150	16	2.8	0.31	0.1	90.44	15.9	9	25.1	3.5	0.09
MW-8V-81-84	79	2.7	0.74	0.21	97.43	17.1	14	29.2	3.21	0.11
MW-8V-94-97	66	2.1	0.5	0.16	73.28	8.4	8	18.9	2.7	0.08
MW-8V-155-160	23	3.5	0.39	0.16	102	20.5	10	31.8	3.97	0.11
MW-8V-160-165	21	2.5	0.27	0.16	95.21	18.7	6	22.5	4.13	0.08
MW-9H-40-50	41	2	0.21	0.08	84.47	16.8	7	21.9	3.9	0.07
MW-9H-50-60	7	1	0.07	0.04	56.38	9.9	2	10.8	3.36	0.04
MW-12H-60-64	16	2.8	0.32	0.2	86.92	18.2	6	24.7	3.26	0.08
MW-12V-120-130	14	2.5	0.34	0.18	88.1	16.9	6	24	3.61	0.09
Duplicate										
*Rep MW-9H-50-60	8	1	0.08	0.06	58.63	10.5	2	11.7	3.81	0.04
QC										
OREAS 601b	275	2.3	17.88	1.89	69.59	2.9	5	23.7	4.93	0.44
Certified Values	284	2.24	18.0	2.05	70	2.97	4.88	23.4	5.09	0.47
Tolerance (%)	19.2	44.2	19.0	16.3	35.5	18.6	11.4	22.9	17.4	17.0

CLIENT: Golder
PROJECT: Southern Com
SGS Project #: 2204
Test: Metals by Multi Acid
Date: 16 Feb 22

Sample ID	**La ppm**	**Lu ppm**	**Mo ppm**	**Nb ppm**	**Pb ppm**	**Rb ppm**	**Sb ppm**	**Sc ppm**	**Se ppm**	**Sn ppm**
Method Code	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12
LOD	0.1	0.01	0.05	0.1	0.5	0.2	0.05	0.5	2	0.3
MW-3V-170-180	47.7	0.57	2.7	14.9	30.9	208	0.87	26	2	3.8
MW-3V-180-190	35.3	0.38	1.57	10.8	24.9	90.1	3.11	17.2	<2	2.9
MW-4V-130-140	39.7	0.53	1.72	13.3	27.4	172	1.04	20.9	<2	3.6
MW-4V-140-150	39.5	0.51	1.04	13.2	23.1	161	0.57	20.8	<2	3.4
MW-8V-81-84	43.3	0.53	9.05	13.4	43.5	137	3.53	22.4	8	4
MW-8V-94-97	34	0.41	9.8	10.6	32.2	81.1	2.2	18.8	9	3
MW-8V-155-160	43.8	0.61	3.25	14.5	31.2	198	1.15	25.8	<2	3.8
MW-8V-160-165	41.9	0.5	1.3	12.6	25.2	141	1.22	19.8	<2	3
MW-9H-40-50	37.2	0.44	0.67	13.2	15	106	0.84	17.3	<2	3.1
MW-9H-50-60	24.5	0.35	0.78	7.4	10.5	53.9	0.39	10.1	<2	1.5
MW-12H-60-64	37.1	0.5	1.78	13.4	25.2	134	0.86	20.1	<2	3.4
MW-12V-120-130	38.6	0.53	1.88	12.3	25.6	141	1.05	20.3	<2	3.2
Duplicate										
*Rep MW-9H-50-60	25.8	0.37	0.8	8.4	11.1	56.1	0.43	10.7	<2	1.5
QC										
OREAS 601b	33.3	0.09	5.19	14.4	302	91.7	22.76	5	9	3.2
Certified Values	33.5	0.0731	5.22	14.4	318	98	22.9	3.77	10.6	3.36
Tolerance (%)	22.6	54.6	27.1	21.7	14.7	10.9	27.4	19.0	31.2	15.8

CLIENT: Golder
PROJECT: Southern Com
SGS Project #: 2204
Test: Metals by Multi Acid
Date: 16 Feb 22

Sample ID	Ta ppm	Tb ppm	Te ppm	Th ppm	Tl ppm	U ppm	W ppm	Y ppm	Yb ppm
Method Code	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12	IMS40Q12
LOD	0.05	0.05	0.05	0.2	0.02	0.05	0.1	0.1	0.1
MW-3V-170-180	1.07	1.29	0.09	16.1	1.14	4.48	3.2	25.8	3.9
MW-3V-180-190	0.87	1.08	<0.05	11.7	0.88	3.32	1.4	15.6	2.5
MW-4V-130-140	0.97	1.15	0.08	14.8	1.06	3.96	1.8	23.1	3.4
MW-4V-140-150	0.98	1.11	0.07	14.7	0.94	3.77	1.5	20.5	3.4
MW-8V-81-84	1.06	1.12	0.12	18	1.63	4.72	1.7	22.1	3.5
MW-8V-94-97	0.87	0.87	0.08	14.1	0.92	3.98	1.4	17	2.7
MW-8V-155-160	1.06	1.59	0.08	15.5	1.2	4.89	1.7	26.5	4.1
MW-8V-160-165	0.92	1.09	0.08	15.4	0.83	4.12	1.4	19.6	3.2
MW-9H-40-50	0.97	1	<0.05	13.1	0.84	3.77	1.6	17.4	2.9
MW-9H-50-60	0.54	0.77	<0.05	8.6	0.31	2.21	1	14.8	2.2
MW-12H-60-64	0.96	1.23	<0.05	13.7	0.74	3.84	4.4	23.5	3.3
MW-12V-120-130	0.98	1.32	0.07	14.6	0.85	4.12	1.6	24.2	3.6
Duplicate									
*Rep MW-9H-50-60	0.64	0.81	<0.05	9.1	0.31	2.36	1.1	15.7	2.4
QC									
OREAS 601b	1.14	0.66	11.67	12.8	1.44	4.61	6.7	11	0.6
Certified Values	1.11	0.52	12.6	11.9	1.44	4.64	6.13	11.1	0.54
Tolerance (%)	20.6	40.4	22.8	20.7	19.2	14.0	16.6	13.7	30.4

CLIENT : **Golder**
PROJECT : **Southern Company**
SGS Project # : **2204**
Test : **Metals by Aqua Regia Digestion with ICP-MS/ AES Finish**
Date : **16 Feb 22**

Sample ID	**Al2O3 %**	**CaO %**	**Cr2O3 %**	**Fe2O3 %**	**K2O %**	**MgO %**	**Mn3O4 %**	**Na2O %**	**P2O5 %**	**SiO2 %**	**TiO2 %**	**V2O5 %**	**LOI %**	**Sum %**
Method Code	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72	XRF72
LOD	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-10	0.01
MW-3V-170-180	18.75	0.77	0.01	8.45	3.97	2.25	0.13	0.87	0.18	54.87	0.88	0.03	8.78	91.49
MW-3V-180-190	13.41	0.13	<0.01	5.35	1.88	0.51	0.02	0.77	0.02	69.68	0.74	0.02	7.03	92.66
MW-4V-130-140	16.28	1.61	0.01	6.64	3.45	1.82	0.08	0.99	0.19	59.9	0.86	0.02	6.93	94.14
MW-4V-140-150	16.59	0.64	0.01	7.19	3.45	1.94	0.1	1.02	0.16	60.72	0.90	0.03	7.01	93.47
MW-8V-81-84	18.20	0.31	0.01	3.68	2.46	0.91	<0.01	0.2	0.09	30.64	0.74	0.03	42.25	57.6
MW-8V-94-97	12.48	0.40	<0.01	3.60	1.56	0.61	0.02	0.25	0.13	25.76	0.63	0.02	54.00	45.75
MW-8V-155-160	19.15	0.56	0.01	7.50	4.47	2.17	0.08	1.19	0.2	57.33	0.92	0.04	6.02	94.21
MW-8V-160-165	14.60	0.90	<0.01	5.77	3.08	1.67	0.06	1.57	0.19	66.16	0.95	0.02	4.64	95.57
MW-9H-40-50	14.46	0.15	<0.01	5.27	2.24	1.34	0.02	0.92	0.08	66.43	0.93	0.02	7.89	92.06
MW-9H-50-60	8.68	1.61	<0.01	3.64	1.26	0.96	0.06	1.35	0.11	77.86	0.73	0.01	3.52	96.52
MW-12H-60-64	15.44	0.42	<0.01	7.47	2.9	1.64	0.12	1.18	0.16	63.09	0.88	0.02	6.59	93.84
MW-12V-120-130	14.78	1.62	<0.01	6.62	2.95	1.66	0.08	1.22	0.17	63.05	0.86	0.03	6.23	93.39
Duplicate														
*Rep MW-12H-60-64	15.34	0.41	<0.01	7.51	2.86	1.65	0.11	1.16	0.16	62.8	0.88	0.02	6.649	93.46
QC														
OREAS 751	15.8	1.04	<0.01	2.4	2.92	0.50	0.09	3.4	0.28	71.24	0.24	<0.01		
OREAS 70B													6.81	
Expected Values	15.88	1.06	-	2.4	2.92	0.507	0.089	3.42	0.28	71.43	0.243	-	6.69	-
Tolerance +/-	0.34	0.05	-	0.07	0.08	0.035	0.027	0.09	0.03	1.45	0.030	-	0.694	-

SGS proposal: 18888
SGS project #: 2204

Sample receipt date: 6-May-22
Report date: 7-Jun-22

Version: Final

Customer details

Name:	Robert Singleton
Address:	Southern Company c/o Golder

Project reference: Southern Company

P.O. number:

COC:

ANALYSIS REPORT

SGS WO: 2

Report Distribution

Name	Email
Robert Singleton	rosingle@southernco.com

Special notes:

Tessier Sequential extraction on 4 samples

3260 Production Way
Burnaby - British Columbia - V5A 4W4
Phone: 604-638-2349 FAX: 604-444-5486

SGS proposal: 18888
SGS project #: 2204

Sample receipt date: 6-May-22
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Version: Final

ANALYSIS REPORT

Method Summaries *Test method information available upon request.*

S(T) and C(T): Total sulfur and total carbon by LECO, Method CSA06V
S(SO4): Sulfate by HCl digestion with ICP finish, Method CSA07V
S(S2-): Sulfide by calculation of S(T) - S(SO4)

TIC: Total inorganic carbon by coulometry, Method CSB02V
AP: Acid generating potential based on sulfide sulfur
NP: Modified neutralisation potential by excess acid addition and back titration to pH 8.3
Net NP: Net neutralisation potential = NP - AP
NPR: Neutralisation potential ratio = NP/AP

Metals by Aqua regia digest with ICP-OES/MS finish, Method ICP21B20/ICM21B20
Metals by multi-acid digest with ICP-OES/MS finish, Method ICP40Q12/IMS40Q12
Tessier Sequential Extraction - method available on request

Preliminary Data

Noelene Ahern - Manager: ARD

Final Data Approval

Noelene Ahern - Manager: ARD

Tessier Extraction

Water Soluble Metals
Reagent: 15 mL of Nanopure Distilled Water

Sample			MW-3V-180-190	MW-9H-40-50	MW-8V-81-84	MW-8V-155-160	MW-4V-130-140	MW-12H-60-64	Blank
Sample weight (g)			1.0770	1.0101	1.0102	1.0043	1.0099	1.0484	0
Reagent volume (mL)			15	15	15.0	15.0	15.0	15	15
Volume analysed (after wash dilution and preservation) (mL)			22.5	22.5	22.5	22.5	22.5	22.5	22.5
Final diluted solution weight (g)			23.79	23.46	23.6	22.7	22.5	22.495	23.39
Parameter	**Units**	**RDL**							
Hardness CaCO3	mg/L	0.05	51800	54800	56700	56300	57300	53200	55600
Aluminum Al	mg/L	0.001	6	15	23	1	1	1	< 0.1
Antimony Sb	mg/L	0.0009	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Arsenic As	mg/L	0.0002	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Barium Ba	mg/L	0.00002	3.16	2.9	2.28	2.64	2.28	1.56	0.103
Beryllium Be	mg/L	0.000007	0.0037	0.0023	0.002	< 0.0007	< 0.0007	< 0.0007	< 0.0007
Bismuth Bi	mg/L	0.00001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Boron B	mg/L	0.002	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cadmium Cd	mg/L	0.000003	0.0003	< 0.0003	0.0007	0.0005	0.0004	0.0009	< 0.0003
Calcium Ca	mg/L	0.01	8	3	8	21	62	11	1
Chromium Cr	mg/L	0.00008	< 0.008	< 0.008	0.01	0.009	< 0.008	0.008	< 0.008
Cobalt Co	mg/L	0.000004	0.0923	0.0227	0.038	0.0157	0.0039	0.0182	< 0.0004
Copper Cu	mg/L	0.0002	0.0577	0.0928	0.182	0.0319	0.0261	0.0382	< 0.02
Iron Fe	mg/L	0.007	9	4	11	1	2	2	< 0.7
Lead Pb	mg/L	0.00009	0.044	0.011	0.058	< 0.009	< 0.009	< 0.009	< 0.009
Lithium Li	mg/L	0.0001	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Magnesium Mg	mg/L	0.001	12600	13300	13800	13700	13900	12900	13500
Manganese Mn	mg/L	0.00001	0.47	0.16	0.08	0.56	0.55	0.72	< 0.01
Mercury Hg	ug/L	0.01	0.05	0.04	0.26	< 0.01	< 0.01	0.07	0.07
Molybdenum Mo	mg/L	0.00004	< 0.0004	0.0019	0.0005	0.0061	0.0015	0.0025	0.0012
Nickel Ni	mg/L	0.0001	0.121	0.0788	0.077	0.017	0.008	0.0195	0.0044
Phosphorus P	mg/L	0.003	< 0.03	< 0.03	< 0.03	< 0.03	0.2	< 0.03	< 0.03
Potassium K	mg/L	0.003	4.6	2.4	3.7	16.8	11.6	10.8	0.4
Selenium Se	mg/L	0.00004	0.0009	< 0.0004	0.002	0.0027	0.0008	0.0009	0.0011
Silicon Si	mg/L	0.02	3.6	3.9	2.9	2.6	3.8	3.9	0.7
Silver Ag	mg/L	0.00005	0.0015	0.0021	0.0026	0.0017	0.0013	0.0017	0.0017
Sodium Na	mg/L	0.01	5.4	5.1	5	9.5	5.2	5.4	4.6
Strontium Sr	mg/L	0.00002	0.341	0.0403	0.154	0.393	0.342	0.0917	0.0036
Sulphur (S)	mg/L	1	14	60	88	95	104	40	78
Thallium Tl	mg/L	0.000005	0.0008	0.0003	0.0004	0.0005	0.0003	0.0004	< 0.00005
Tin Sn	mg/L	0.00006	0.0011	0.0006	0.0006	0.0008	< 0.0006	0.0008	0.0006
Titanium Ti	mg/L	0.00005	0.0667	0.0578	0.0195	0.0074	0.0318	0.0459	0.0031
Uranium U	mg/L	0.000002	0.0014	0.0009	0.0005	0.0007	0.0022	0.0001	< 0.00002
Vanadium V	mg/L	0.00001	0.0033	0.0049	0.0043	0.0044	0.0058	0.0039	0.0026
Zinc Zn	mg/L	0.002	0.09	0.11	0.26	0.03	< 0.02	0.05	0.03
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

Tessier Extraction

Exchangeable Metals
Reagent: 15 mL of 1 M MgCl2 (pH 7)

Sample			MW-3V-180-190	MW-9H-40-50	MW-8V-81-84	MW-8V-155-160	MW-4V-130-140	MW-12H-60-64	Blank
Reagent volume (mL)			15	15	15.0	15.0	15.0	15	15
Volume analysed (after wash dilution and preservation) (mL)			27.5	27.5	27.5	27.5	27.5	27.5	27.5
Final diluted solution weight (g)			29.325	29.905	29.7	30.1	29.6	29.775	30.08
Parameter	**Units**	**RDL**							
Hardness CaCO3	mg/L	0.05	91.1	156	297	17	119	19.8	< 5
Aluminum Al	mg/L	0.001	2	10	38	14	4	10	< 0.1
Antimony Sb	mg/L	0.0009	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Arsenic As	mg/L	0.0002	0.03	< 0.02	0.02	0.04	< 0.02	< 0.02	< 0.02
Barium Ba	mg/L	0.00002	0.021	0.116	0.072	0.35	0.059	0.124	< 0.008
Beryllium Be	mg/L	0.000007	0.0033	0.0058	0.0167	0.002	0.0007	0.0008	< 0.0007
Bismuth Bi	mg/L	0.00001	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Boron B	mg/L	0.002	< 0.2	0.8	0.4	0.2	< 0.2	< 0.2	< 0.2
Cadmium Cd	mg/L	0.000003	< 0.0003	0.0006	0.0046	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Calcium Ca	mg/L	0.01	16	19	84	3	32	2	< 1
Chromium Cr	mg/L	0.00008	< 0.008	< 0.008	0.021	0.016	< 0.008	0.012	< 0.008
Cobalt Co	mg/L	0.000004	0.203	0.284	0.548	0.0145	0.0032	0.0085	0.0008
Copper Cu	mg/L	0.0002	0.293	0.253	1.08	0.114	0.0887	0.103	0.0581
Iron Fe	mg/L	0.007	12	14	22	13	3	12	< 0.7
Lead Pb	mg/L	0.00009	< 0.009	< 0.009	< 0.009	0.04	< 0.009	0.021	< 0.009
Lithium Li	mg/L	0.0001	0.2	0.2	0.5	0.03	0.03	0.04	< 0.01
Magnesium Mg	mg/L	0.001	11	26	21	2	10	3	< 0.1
Manganese Mn	mg/L	0.00001	0.776	1.81	1.01	0.163	0.051	0.256	0.002
Mercury Hg	ug/L	0.01	0.1	< 0.01	0.1	0.11	0.06	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.00004	0.00232	0.0264	0.0025	0.0316	0.0028	0.0091	0.0007
Nickel Ni	mg/L	0.0001	0.251	0.912	1.08	0.0217	0.0057	0.0202	0.001
Phosphorus P	mg/L	0.003	< 0.003	0.098	0.098	0.588	0.098	0.098	< 0.003
Potassium K	mg/L	0.003	8.48	1.8	4.7	11.7	18.2	13.1	< 0.003
Selenium Se	mg/L	0.00004	0.00107	0.00147	0.01147	0.00559	0.00226	0.00167	0.0002
Silicon Si	mg/L	0.02	6	7	5	21	9	16	< 2
Silver Ag	mg/L	0.00005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Sodium Na	mg/L	0.01	9	3	3	15	7	10	< 1
Strontium Sr	mg/L	0.00002	0.15	0.041	0.17	0.043	0.16	0.025	< 0.008
Sulphur (S)	mg/L	1	< 100	< 100	138	< 100	< 100	< 100	< 100
Thallium Tl	mg/L	0.000005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Tin Sn	mg/L	0.00006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
Titanium Ti	mg/L	0.00005	0.019	0.074	0.036	0.14	0.2	0.45	< 0.005
Uranium U	mg/L	0.000002	0.0003	0.0041	0.0101	0.0016	0.0005	0.0012	< 0.0002
Vanadium V	mg/L	0.00001	0.002	0.003	0.003	0.029	0.01	0.02	< 0.001
Zinc Zn	mg/L	0.002	< 0.2	1	3	< 0.2	< 0.2	< 0.2	< 0.2
Zirconium Zr	mg/L	0.002	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

SGS proposal: 18888 Sample receipt date: 6-May-22
SGS project #: 2204 Report date: 7-Jun-22

Version: Final

Tessier Extraction

Metals Bound to Carbonates
Reagent: 15 mL of 1 M NaOAc (adjusted to pH 5.0 with Acetic Acid)

Sample			MW-3V-180-190	MW-9H-40-50	MW-8V-81-84	MW-8V-155-160	MW-4V-130-140	MW-12H-60-64	Blank
Reagent volume (mL)			15	15	15.0	15.0	15.0	15	15
Volume analysed (after wash dilution and preservation) (mL)			32.5	32.5	32.5	32.5	32.5	32.5	32.5
Final diluted solution weight (g)			34.59	34.12	34.6	34.1	34.7	34.345	34.61
Parameter	**Units**	**RDL**							
Hardness CaCO3	mg/L	0.05	216	246	359	358	938	254	0.6
Aluminum Al	mg/L	0.001	15	12.9	2.3	17	17.8	15.1	< 0.01
Antimony Sb	mg/L	0.0009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009	< 0.009
Arsenic As	mg/L	0.0002	0.022	0.049	0.083	0.022	0.018	0.009	< 0.002
Barium Ba	mg/L	0.00002	0.894	1.09	0.813	1.7	2.14	1.35	0.0055
Beryllium Be	mg/L	0.000007	0.00516	0.00156	0.00075	0.00714	0.00525	0.00583	< 0.00007
Bismuth Bi	mg/L	0.00001	0.0005	0.0002	0.0008	0.0041	0.002	0.0023	< 0.0001
Boron B	mg/L	0.002	< 0.02	< 0.02	< 0.02	< 0.02	0.03	< 0.02	< 0.02
Cadmium Cd	mg/L	0.000003	0.00003	0.00008	0.00018	0.00038	0.00084	0.00065	< 0.00003
Calcium Ca	mg/L	0.01	0.25	0.22	0.32	18.3	216	2.4	0.12
Chromium Cr	mg/L	0.00008	0.028	0.028	0.0123	0.0207	0.0273	0.0241	0.0035
Cobalt Co	mg/L	0.000004	0.0306	0.0065	0.00391	0.0879	0.0994	0.0912	0.00005
Copper Cu	mg/L	0.0002	0.029	0.045	0.084	0.175	0.172	0.222	< 0.002
Iron Fe	mg/L	0.007	21.1	16.9	24.3	33.3	38.4	39.6	< 0.07
Lead Pb	mg/L	0.00009	0.0315	0.0052	0.0183	0.213	0.0941	0.116	< 0.0009
Lithium Li	mg/L	0.0001	0.07	0.017	0.017	0.027	0.03	0.021	0.002
Magnesium Mg	mg/L	0.001	52.4	59.7	87	75.9	96.9	60.2	0.08
Manganese Mn	mg/L	0.00001	0.152	0.0517	0.0155	1.84	4.63	1.97	0.0039
Mercury Hg	ug/L	0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.00004	0.0014	0.0009	0.002	0.0018	0.0011	0.0049	0.0013
Nickel Ni	mg/L	0.0001	0.043	0.018	0.009	0.098	0.141	0.131	< 0.001
Phosphorus P	mg/L	0.003	< 0.03	0.09	0.13	0.36	0.34	0.17	0.07
Potassium K	mg/L	0.003	6.3	5.2	5	13.2	12.1	11.4	2.3
Selenium Se	mg/L	0.00004	0.0007	0.0012	0.0069	0.0024	0.0021	0.0019	0.0017
Silicon Si	mg/L	0.02	3.75	3.15	2.47	12.8	13.9	9.65	< 0.2
Silver Ag	mg/L	0.00005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Sodium Na	mg/L	0.01	11600	11600	11500	11400	11500	11500	11600
Strontium Sr	mg/L	0.00002	0.0139	0.009	0.0277	0.106	0.63	0.024	< 0.0008
Sulphur (S)	mg/L	1	19	24	26	20	22	19	21
Thallium Tl	mg/L	0.000005	0.00019	0.00009	0.00022	0.00018	0.0002	0.00018	0.00005
Tin Sn	mg/L	0.00006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
Titanium Ti	mg/L	0.00005	0.0083	0.013	0.0042	0.031	0.0132	0.0198	< 0.0005
Uranium U	mg/L	0.000002	0.00406	0.00182	0.00181	0.00694	0.00605	0.005	< 0.00002
Vanadium V	mg/L	0.00001	0.002	0.0025	0.0033	0.0187	0.0193	0.026	0.0002
Zinc Zn	mg/L	0.002	0.05	0.04	0.05	0.16	0.5	0.28	< 0.02
Zirconium Zr	mg/L	0.002	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

SGS proposal: 18888 Sample receipt date: 6-May-22
SGS project #: 2204 Report date: 7-Jun-22

Version: Final

Tessier Extraction

Metals Bound to Fe and Mn Oxides
Reagent: 15 mL of 0.04M NH2OH. HCl in 25% HOAc

Sample			MW-3V-180-190	MW-9H-40-50	MW-8V-81-84	MW-8V-155-160	MW-4V-130-140	MW-12H-60-64	Blank
Reagent volume (mL)			15	15	15.0	15.0	15.0	15	15
Volume analysed (after wash dilution and preservation) (mL)			32.5	32.5	32.5	32.5	32.5	32.5	32.5
Final diluted solution weight (g)			34.535	34.64	34.6	34.1	33.9	34.12	33.91
Parameter	**Units**	**RDL**							
Hardness CaCO3	mg/L	0.05	39	88	53	344	315	362	< 5
Aluminum Al	mg/L	0.001	27	41	21	35	37	23	< 0.1
Antimony Sb	mg/L	0.0009	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Arsenic As	mg/L	0.0002	0.2	0.3	0.8	0.04	0.06	< 0.02	< 0.02
Barium Ba	mg/L	0.00002	0.21	0.11	0.088	0.61	1	0.58	< 0.008
Beryllium Be	mg/L	0.000007	0.0069	0.0042	0.004	0.0119	0.0115	0.0126	< 0.0007
Bismuth Bi	mg/L	0.00001	0.003	0.001	0.007	0.004	0.004	0.004	< 0.001
Boron B	mg/L	0.002	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cadmium Cd	mg/L	0.000003	< 0.0003	0.0007	0.0005	0.0005	0.0007	0.0009	< 0.0003
Calcium Ca	mg/L	0.01	4	6	2	56	51	46	< 1
Chromium Cr	mg/L	0.00008	0.094	0.11	0.043	0.08	0.12	0.12	< 0.008
Cobalt Co	mg/L	0.000004	0.0841	0.0521	0.0207	0.114	0.158	0.0825	< 0.0004
Copper Cu	mg/L	0.0002	0.03	0.09	0.05	0.09	0.1	0.09	< 0.02
Iron Fe	mg/L	0.007	394	295	238	383	334	708	5
Lead Pb	mg/L	0.00009	0.19	0.01	0.18	0.23	0.13	0.19	< 0.009
Lithium Li	mg/L	0.0001	0.3	0.3	0.3	0.1	0.1	0.06	< 0.01
Magnesium Mg	mg/L	0.001	7	18	12	50	46	60	< 0.1
Manganese Mn	mg/L	0.00001	1.3	0.7	0.26	8.3	6.7	17.2	0.032
Mercury Hg	ug/L	0.01	0.1	0.09	0.05	0.03	0.01	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.00004	0.009	0.012	0.047	0.015	0.02	0.008	< 0.004
Nickel Ni	mg/L	0.0001	0.1	0.1	0.05	0.2	0.3	0.2	< 0.01
Phosphorus P	mg/L	0.003	0	2	1	4	5	2	0
Potassium K	mg/L	0.003	8	14	13	5	7	4	< 0.3
Selenium Se	mg/L	0.00004	< 0.004	< 0.004	0.022	< 0.004	< 0.004	< 0.004	< 0.004
Silicon Si	mg/L	0.02	19	28	23	28	32	19	< 2
Silver Ag	mg/L	0.00005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Sodium Na	mg/L	0.01	64	60	111	47	49	42	< 1
Strontium Sr	mg/L	0.00002	0.055	0.05	0.096	0.21	0.22	0.12	< 0.008
Sulphur (S)	mg/L	1	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Thallium Tl	mg/L	0.000005	0.0017	0.002	0.0083	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Tin Sn	mg/L	0.00006	< 0.006	0.009	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
Titanium Ti	mg/L	0.00005	0.015	0.042	0.034	0.017	0.023	0.014	< 0.005
Uranium U	mg/L	0.000002	0.004	0.0025	0.0031	0.0084	0.0099	0.0066	< 0.0002
Vanadium V	mg/L	0.00001	0.094	0.12	0.12	0.14	0.19	0.34	0.001
Zinc Zn	mg/L	0.002	1	1	1	1	1	1	0
Zirconium Zr	mg/L	0.002	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

SGS proposal: 18888
SGS project #: 2204

Sample receipt date: 6-May-22
Report date: 7-Jun-22

Version: Final

Tessier Extraction

Metals Bound to Organics
Reagent: 3 mL of 0.02 M HNO3 + 5 mL 30% H2O2 + 5 mL 1.2 M NH4OAc in 20% HNO3

Sample			MW-3V-180-190	MW-9H-40-50	MW-8V-81-84	MW-8V-155-160	MW-4V-130-140	MW-12H-60-64	Blank
Reagent volume (mL)			15	15	15.0	15	15	15	15
Volume analysed (after wash dilution and preservation) (mL) (Vol. is approximate)			37.5	37.5	37.5	37.5	37.5	37.5	37.5
Final diluted solution weight (g)			38.425	38.635	38.2	39.1	38.8	38.92	40.52
Parameter	**Units**	**RDL**							
Hardness CaCO3	mg/L	0.05	16	55	36	115	107	105	8
Aluminum Al	mg/L	0.001	22	31	33	31	37	22	< 0.1
Antimony Sb	mg/L	0.0009	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Arsenic As	mg/L	0.0002	0.5	0.2	0.7	0.2	0.3	0.1	< 0.02
Barium Ba	mg/L	0.00002	0.116	0.189	0.603	0.202	0.069	0.152	< 0.008
Beryllium Be	mg/L	0.000007	0.0015	0.0011	0.0014	0.0019	0.0022	0.002	0.0007
Bismuth Bi	mg/L	0.00001	< 0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	< 0.001
Boron B	mg/L	0.002	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cadmium Cd	mg/L	0.000003	< 0.0003	< 0.0003	0.0012	0.0018	0.0009	0.0024	< 0.0003
Calcium Ca	mg/L	0.01	2	10	3	30	25	27	2
Chromium Cr	mg/L	0.00008	0.027	0.032	0.053	0.035	0.092	0.029	0.018
Cobalt Co	mg/L	0.000004	0.0408	0.02	0.0299	0.137	0.0815	0.0905	< 0.0004
Copper Cu	mg/L	0.0002	0.2	0.1	0.5	0.7	0.6	0.6	< 0.02
Iron Fe	mg/L	0.007	336	83	147	67	288	73	< 0.7
Lead Pb	mg/L	0.00009	< 0.009	< 0.009	0.167	0.083	0.014	0.077	< 0.009
Lithium Li	mg/L	0.0001	0.09	0.08	0.1	0.07	0.07	0.04	< 0.01
Magnesium Mg	mg/L	0.001	3	7	7	10	10	9	0
Manganese Mn	mg/L	0.00001	1.18	0.273	0.255	0.508	1.99	0.903	0.006
Mercury Hg	ug/L	0.01	0.03	0.02	0.05	0.02	0.02	< 0.01	< 0.01
Molybdenum Mo	mg/L	0.00004	0.009	< 0.004	0.038	0.01	0.018	0.006	0.005
Nickel Ni	mg/L	0.0001	0.1	0.08	0.1	0.2	0.6	0.3	0.01
Phosphorus P	mg/L	0.003	10	14	13	21	21	18	12
Potassium K	mg/L	0.003	< 0.3	1	1	2	1	1	< 0.3
Selenium Se	mg/L	0.00004	< 0.004	0.004	0.075	0.005	0.006	0.004	< 0.004
Silicon Si	mg/L	0.02	11	16	17	18	20	13	< 2
Silver Ag	mg/L	0.00005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Sodium Na	mg/L	0.01	8	9	10	9	10	9	9
Strontium Sr	mg/L	0.00002	0.018	0.049	0.072	0.156	0.105	0.09	0.009
Sulphur (S)	mg/L	1	320	< 100	< 100	< 100	197	< 100	< 100
Thallium Tl	mg/L	0.000005	0.0019	0.0024	0.0084	0.0006	0.0017	0.0006	< 0.0005
Tin Sn	mg/L	0.00006	0.28	0.616	1.22	0.61	0.739	0.617	5.69
Titanium Ti	mg/L	0.00005	0.043	0.16	0.033	0.16	0.129	0.152	< 0.005
Uranium U	mg/L	0.000002	0.0011	0.002	0.0019	0.0047	0.0044	0.0038	< 0.0002
Vanadium V	mg/L	0.00001	0.029	0.033	0.07	0.042	0.05	0.041	0.003
Zinc Zn	mg/L	0.002	0	0	1	1	3	1	< 0.2
Zirconium Zr	mg/L	0.002	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

SGS proposal: 18888
SGS project #: 2204

Sample receipt date: 6-May-22
Report date: 7-Jun-22

Version: Final

Metals - Multi-Acid Digestion with ICP-OES/MS Finish

Test	Residual wt	Al	Ba	Ca	Cr	Cu	Fe	K	Li	Mg	Mn	Na	Ni	P	S	Sr	Ti
Units	g	%	mg/kg	%	mg/kg	mg/kg	%	%	mg/kg	%	mg/kg	%	mg/kg	%	%	mg/kg	%
Method Code		ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12
Lower detection		0.01	1	0.01	1	0.5	0.01	0.01	1	0.01	2	0.01	1	0.01	0.01	0.5	0.01
Upper detection		15	10000	15	10000	10000	15	15	10000	15	10000	15	10000	15	5	10000	15
Sample ID																	
MW-3V-180-190	0.9095	7.520	388	0.03	28	1.2	1.11	1.62	250	0.26	29	0.59	13	0.02	0.13	40.8	0.43
MW-9H-40-50	0.9349	8.010	669	0.02	55	3.4	2.56	2	97	0.73	150	0.74	19	0.03	0.12	68.7	0.45
MW-8V-81-84	0.8965	9.920	781	0.03	89	22.8	1.15	2.08	286	0.47	39	0.13	19	0.05	0.37	187	0.42
MW-8V-155-160	0.9126	10.010	889	0.02	84	7.9	3.78	3.8	55	1.14	236	0.86	24	0.05	<0.01	88	0.45
MW-4V-130-140	0.9004	9.040	724	0.03	84	5.9	3.05	2.98	53	0.92	191	0.75	23	0.05	0.06	90.5	0.47
MW-12H-60-64	0.9425	8.77	625	0.04	58	5.9	2.8	2.57	47	0.79	190	0.93	23	0.04	<0.01	86.3	0.46
QA/QC																	
*Rep MW-3V-180-190		7.710	384	0.04	40	0.7	1.12	1.62	252	0.26	31	0.59	14	0.02	0.12	41.5	0.42
*Blk BLANK		0.010	6	<0.01	2	0.6	<0.01	<0.01	<1	<0.01	<2	<0.01	1	<0.01	<0.01	<0.5	<0.01
Certified standards																	
*Std OREAS 601b		6.850	1612	0.84	15	972.0	2.28	2.53	24	0.10	228	2.01	6	0.03	1.47	250	0.13
*Std OREAS 905		7.640	2778	0.55	11	1565.0	4.13	3.07	21	0.28	362	2.55	10	0.03	0.07	161	0.12

SGS proposal: 18888
SGS project #: 2204

Sample receipt date: 6-May-22
Report date: 7-Jun-22

Version: Final

Metals - Multi-Acid Digestion with ICP-OES/MS Finish

Test	V	Zn	Zr	Ag	As	Be	Bi	Cd	Ce	Co	Cs	Ga	Hf	In	La	Lu
Units	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	mg/kg	mg/kg	mg/kg
Method Code	ICP40Q12	ICP40Q12	ICP40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12
Lower detection	2	1	0.5	0.02	1	0.1	0.04	0.02	0.05	0.1	1	0.1	0.02	0.01	0.05	0.1
Upper detection	10000	10000	10000	100	10000	2500	10000	10000	1000	10000	1000	1000	500	1000	10000	1000
Sample ID																
MW-3V-180-190	81	19	94.4	0.03	24	1.7	0.06	0.71	97.33	5.1	8.00	17.1	2.89	0.1	40.1	0.30
MW-9H-40-50	98	49	129	0.05	14	1.7	0.13	0.66	84.47	7.3	7.00	21.3	3.84	0.2	37.1	0.36
MW-8V-81-84	161	28	106	0.18	11	2.1	0.32	0.68	101	3.4	12.00	26.4	3.04	0.2	49.0	0.44
MW-8V-155-160	148	71	125	<0.02	10	2.9	0.09	0.25	97.92	7.9	8.00	28.2	3.89	0.1	44.7	0.45
MW-4V-130-140	129	62	133	0.05	11	2.4	0.14	0.55	84.41	8	8.00	23.8	3.85	0.2	41.4	0.37
MW-12H-60-64	106	57	114	0.07	5	2.2	0.11	0.68	82.91	8.3	5.00	22.6	3.43	0.2	37.8	0.37
QA/QC																
*Rep MW-3V-180-190	85	19	92.7	0.04	23	1.7	0.07	0.65	86.53	5.2	8.00	17.4	2.69	0.2	38.8	0.29
*Blk BLANK	<2	2	<0.5	<0.02	<1	<0.1	<0.04	0.05	0.08	<0.1	<1	<0.1	<0.02	<0.02	<0.1	<0.01
Certified standards																
*Std OREAS 601b	10	297	181	50.31	297	2.3	17.5	1.86	68.55	3	5.00	23.8	5.07	0.5	34.4	0.07
*Std OREAS 905	8	128	250	0.56	33	3	5.78	0.34	92.15	15	7.00	25.2	6.96	0.7	43.8	0.10

3260 Production Way
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SGS proposal: 18888
SGS project #: 2204

Sample receipt date: 6-May-22
Report date: 7-Jun-22

Version: Final

Metals - Multi-Acid Digestion with ICP-OES/MS Finish

Test	Mo	Nb	Pb	Rb	Sb	Sc	Se	Sn	Ta	Tb	Te	Th	Tl	U	W	Y	Yb
Units	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	mg/kg	mg/kg	ppm	ppm
Method Code	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12
Lower detection	0.5	0.2	0.05	0.5	2	0.3	0.05	0.05	0.05	0.2	0.02	0.05	0.1	0.1	0.1	0.05	0.1
Upper detection	10000	10000	10000	10000	1000	1000	10000	10000	1000	10000	10000	10000	10000	10000	1000	10000	100
Sample ID																	
MW-3V-180-190	0.89	13.5	14.6	88	2.97	11.8	<2	239	1.07	0.74	<0.05	10.0	0.63	2.6	1.3	17.2	2
MW-9H-40-50	0.26	14.2	13.9	107	0.74	13.8	<2	248	1.06	0.6	<0.05	11.3	0.64	3.2	1.5	16.9	2.3
MW-8V-81-84	5.9	12.8	29.2	127	2.86	17.2	<2	205	1.03	0.75	0.07	15.1	0.96	3.8	1.4	23.0	2.7
MW-8V-155-160	1.42	15.5	9.2	199	0.79	20.5	<2	231	1.14	0.55	<0.05	12.0	1.04	3.7	3.5	18.6	3
MW-4V-130-140	0.99	14.9	19.7	175	0.87	15.2	<2	245	1.06	0.39	<0.05	10.3	0.87	3.3	3.3	13.5	2.5
MW-12H-60-64	1.26	14.3	11.6	129	0.77	13.3	<2	239	1.04	0.53	<0.05	11.0	0.65	3.0	2.5	18.2	2.3
QA/QC																	
*Rep MW-3V-180-190	0.72	12.3	14.9	90	2.8	10.6	<2	240	0.98	0.69	<0.05	9.4	0.67	2.7	1.3	15.0	1.8
*Blk BLANK	0.07	<0.1	<0.5	<0.2	<0.05	<0.5	<2	<0.3	<0.05	<0.05	<0.05	<0.2	<0.02	<0.05	<0.1	<0.1	<0.1
Certified standards																	
*Std OREAS 601b	5.2	15.5	301.0	94	23.58	3.6	6.0	3.8	1.15	0.52	11.71	11.4	1.43	4.6	6.0	11.3	0.5
*Std OREAS 905	3.27	19	31.7	141	1.97	5	<2	4	1.37	0.77	0.07	14.0	0.70	4.7	2.8	15.4	0.7

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SGS proposal: 19020-PR1-R1
SGS project #: 2224

Metals - Multi Acid Digestion with ICP-OES/MS Finish - CRM Expected Values and Tolerance

CRM	Test	Al	Ba	Ca	Cr	Cu	Fe	K	Li	Mg	Mn	Na	Ni	P	S	Sr	Ti	V
	Units	%	ppm	%	ppm	ppm	%	%	ppm	%	ppm	%	ppm	%	%	ppm	%	ppm
Method Code	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12	ICP40Q12
	Lower detection	0.01	5	0.01	1	0.5	0.01	0.01	1	0.01	2	0.01	1	0.01	0.01	0.5	0.01	1
	Upper detection	15	10000	15	10000	10000	15	15	10000	15	10000	15	10000	15	5	10000	15	10000
OREAS 905	Expected value	7.42	2699.0	0.59	19.2	1533	4.08	2.88	20	0.28	380	2.40	9.5	0.028	0.07	157	0.12	10.1
	Tolerance (%)	10.7	14.0	14.2	49.1	11.9	11.5	12.1	23.9	17.2	13.0	14.1	26.5	24.6	29.4	12.5	15.4	28.6
OREAS 601B	Expected value	6.63	BDL	0.887	23.7	1010	2.29	2.41	22.6	0.10	222	1.90	6.5	0.029	1.50	241	0.14	12.1
	Tolerance (%)	10.1		14.9	37.6	6.8	10.7	9.4	26.3	20.0	11.1	14.3	30.9	15.1	7.2	14.7	11.8	21.7

CRM	Test	Zn	Zr	Ag	As	Be	Bi	Cd	Ce	Co	Cs	Ga	Hf	In	La	Lu	Mo	Nb
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Method Code	ICP40Q12	ICP40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12
	Lower detection	1	0.5	0.01	1	0.1	0.02	0.01	0.05	0.1	0.05	0.1	0.05	0.02	0.1	0.01	0.05	0.05
	Upper detection	10000	10000	100	10000	100	10000	10000	1000	10000	1000	10000	500	500	10000	1000	10000	1000
OREAS 905	Expected value	138	252.000	0.52	34.7	3.04	5.7	0.36	92	14.8	6.78	25.1	6.8	0.64	46	0.1	3.27	18.1
	Tolerance (%)	14.5	13.7	55.1	15.0	31.2	17.7	37.7	14.0	16.3	18.0	12.2	16.5	22.3	19.4	43.4	24.0	18.1
OREAS 601B	Expected value	318	186.000	50.10	284	2.24	18.0	2.05	70	2.97	4.88	23.4	5.1	0.47	33.5	0.0731	5.22	14.4
	Tolerance (%)	5.6	17.0	10.4	19.2	44.2	19.0	16.3	35.5	18.6	11.4	22.9	17.4	17.0	22.6	54.6	27.1	21.7

CRM	Test	Pb	Rb	Sb	Sc	Se	Sn	Ta	Tb	Te	Th	Tl	U	W	Y	Yb
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Method Code	ICP40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	ICM40Q12	
	Lower detection	0.2	0.2	0.05	0.1	1	0.3	0.05	0.02	0.05	0.1	0.02	0.05	0.1	0.05	0.1
	Upper detection	10000	10000	10000	10000	1000	1000	10000	10000	1000	10000	10000	10000	10000	10000	100
OREAS 905	Expected value	30.40	138	1.95	4.9	2.84	3.96	1.34	0.77	0.1	14.60	0.7	5.0	2.78	15.7	0.68
	Tolerance (%)	20.7	13.8	19.7	28.2	34.0	20.5	18.5	27.1	58.3	15.6	22.9	18.4	18.8	15.4	21.2
OREAS 601B	Expected value	318.0	98	22.9	3.8	10.6	3.36	1.11	0.52	12.6	11.90	1.4	4.6	6.13	11.1	0.54
	Tolerance (%)	14.7	10.9	27.4	19.0	31.2	15.8	20.6	40.4	22.8	20.7	19.2	14.0	16.6	13.7	30.4

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MINERALOGY DATA

prepared for:

Custom Min

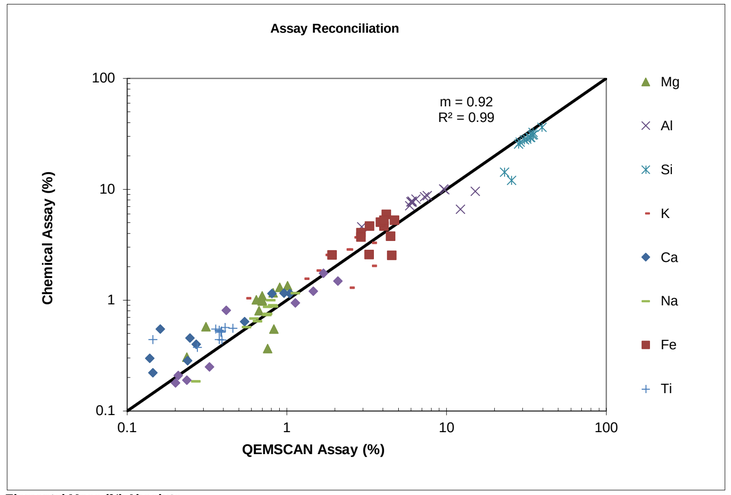
2204 ARD (Southern Company)
MI7013-JAN22
April 12, 2022

Prepared by:

Margot Aldis/Lain Glossop
Mineralogist/Senior Mineralogist

Custom Min
2204 ARD (Southern Company)
MI7013-JAN22

Elemental Mass (%)



Elemental Mass (%) Absolute

	Magnesium		Aluminum		Silicon		Potassium		Calcium		Sodium		Iron		Sulphur		Titanium	
Mineral Name	Mg (Calculated)	Mg (Assay)	Al (Calculated)	Al (Assay)	Si (Calculated)	Si (Assay)	K (Calculated)	K (Assay)	Ca (Calculated)	Ca (Assay)	Na (Calculated)	Na (Assay)	Fe (Calculated)	Fe (Assay)	S (Calculated)	S (Assay)	Ti (Calculated)	Ti (Assay)
MW-3V-170-180	1.01	1.36	9.75	9.92	28.2	25.6	3.43	3.30	0.16	0.55	0.66	0.65	4.21	5.91	0.06	0.09	0.39	0.53
MW-3V-180-190	0.24	0.31	5.85	7.10	34.7	32.6	1.30	1.56	0.01	0.09	0.56	0.57	4.49	3.74	1.70	1.75	0.38	0.44
MW-4V-130-140	0.70	1.10	7.25	8.62	30.8	28.0	2.39	2.86	1.04	1.15	0.75	0.73	4.07	4.64	1.13	0.95	0.39	0.52
MW-4V-140-150	0.82	1.17	7.55	8.78	31.8	28.4	2.44	2.86	0.25	0.46	0.76	0.76	3.87	5.03	0.33	0.25	0.38	0.54
MW-8V-81-84	0.83	0.55	15.1	9.63	23.0	14.3	3.44	2.04	0.14	0.22	0.10	0.15	3.30	2.57	1.46	1.21	0.14	0.44
MW-8V-94-97	0.76	0.37	12.2	6.61	25.5	12.0	2.50	1.30	0.24	0.29	0.27	0.19	4.56	2.52	2.08	1.49	0.28	0.38
MW-8V-155-160	0.90	1.31	9.55	10.1	28.8	26.8	2.66	3.71	0.27	0.40	0.83	0.88	4.08	5.25	0.24	0.19	0.36	0.55
MW-8V-160-165	0.64	1.01	5.95	7.73	34.3	30.9	1.76	2.56	0.54	0.64	1.14	1.16	2.92	4.04	0.21	0.21	0.41	0.57
MW-9H-40-50	0.67	0.81	6.08	7.65	35.0	31.1	1.55	1.86	0.07	0.11	0.63	0.68	2.93	3.69	0.42	0.81	0.46	0.56
MW-9H-50-60	0.31	0.58	2.94	4.59	39.6	36.4	0.56	1.05	0.80	1.15	0.80	1.00	1.93	2.55	0.07	0.08	0.39	0.44
MW-12H-60-64	0.70	0.99	6.41	8.17	33.3	29.5	1.85	2.41	0.14	0.30	0.76	0.88	4.73	5.22	0.20	0.18	0.38	0.53
MW-12V-120-130	0.70	1.00	6.08	7.82	33.6	29.5	1.86	2.45	0.96	1.16	0.82	0.91	3.30	4.63	0.09	0.09	0.39	0.52

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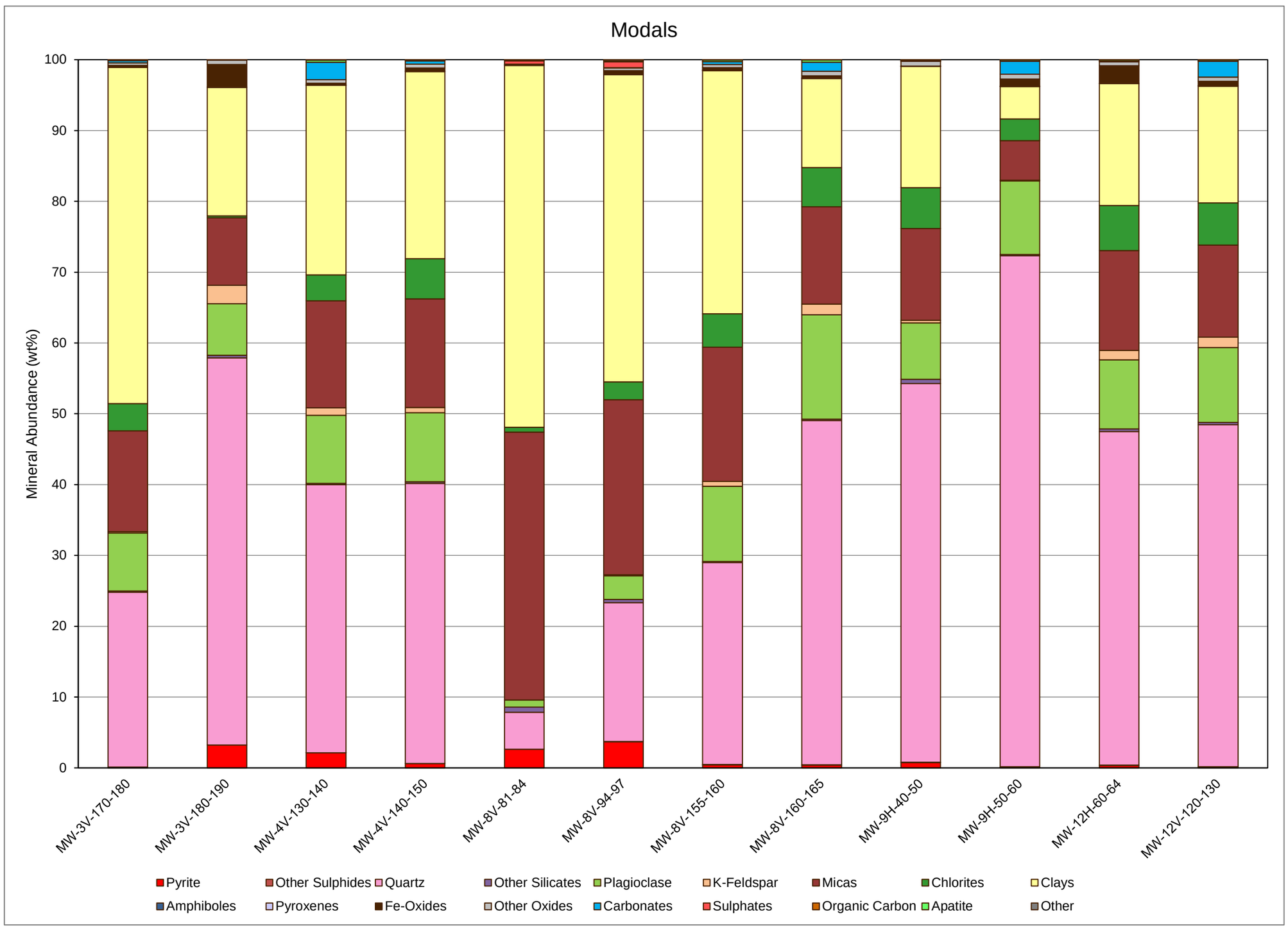
Modals

Mineral (%)	MW-3V-170-180	MW-3V-180-190	MW-4V-130-140	MW-4V-140-150	MW-8V-81-84	MW-8V-94-97	MW-8V-155-160	MW-8V-160-165	MW-9H-40-50	MW-9H-50-60	MW-12H-60-64	MW-12V-120-130
Pyrite	0.10	3.25	2.14	0.62	2.63	3.71	0.43	0.39	0.78	0.14	0.37	0.16
Other Sulphides	0.02	0.00	0.01	0.01	0.02	0.01	0.04	0.03	0.01	0.01	0.01	0.01
Quartz	24.7	54.7	37.8	39.6	5.20	19.6	28.5	48.7	53.5	72.2	47.1	48.3
Other Silicates	0.22	0.38	0.21	0.23	0.72	0.47	0.14	0.16	0.59	0.21	0.33	0.32
Plagioclase	8.18	7.24	9.60	9.72	1.02	3.34	10.6	14.8	7.95	10.4	9.78	10.6
K-Feldspar	0.20	2.61	1.06	0.74	0.02	0.15	0.67	1.48	0.37	0.10	1.33	1.46
Micas	14.2	9.55	15.1	15.3	37.8	24.7	19.0	13.7	12.9	5.57	14.1	13.0
Chlorites	3.87	0.24	3.63	5.69	0.70	2.56	4.70	5.54	5.79	3.08	6.35	5.92
Clays	47.5	18.2	26.8	26.4	51.1	43.4	34.3	12.6	17.1	4.54	17.2	16.5
Amphiboles	0.06	0.00	0.02	0.03	0.01	0.01	0.05	0.03	0.01	0.02	0.02	0.04
Pyroxenes	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Fe-Oxides	0.21	3.22	0.27	0.48	0.02	0.54	0.38	0.35	0.01	1.05	2.47	0.65
Other Oxides	0.36	0.62	0.49	0.52	0.10	0.38	0.46	0.65	0.70	0.68	0.58	0.61
Carbonates	0.33	0.02	2.45	0.47	0.04	0.06	0.40	1.28	0.02	1.85	0.05	2.22
Sulphates	0.00	0.00	0.04	0.00	0.47	0.79	0.01	0.00	0.01	0.00	0.02	0.01
Organic Carbon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apatite	0.11	0.00	0.28	0.15	0.04	0.14	0.22	0.31	0.13	0.18	0.18	0.18
Other	0.02	0.02	0.05	0.02	0.10	0.18	0.03	0.04	0.07	0.02	0.04	0.03
Total	100	100	100	100	100	100	100	100	100	100	100	100



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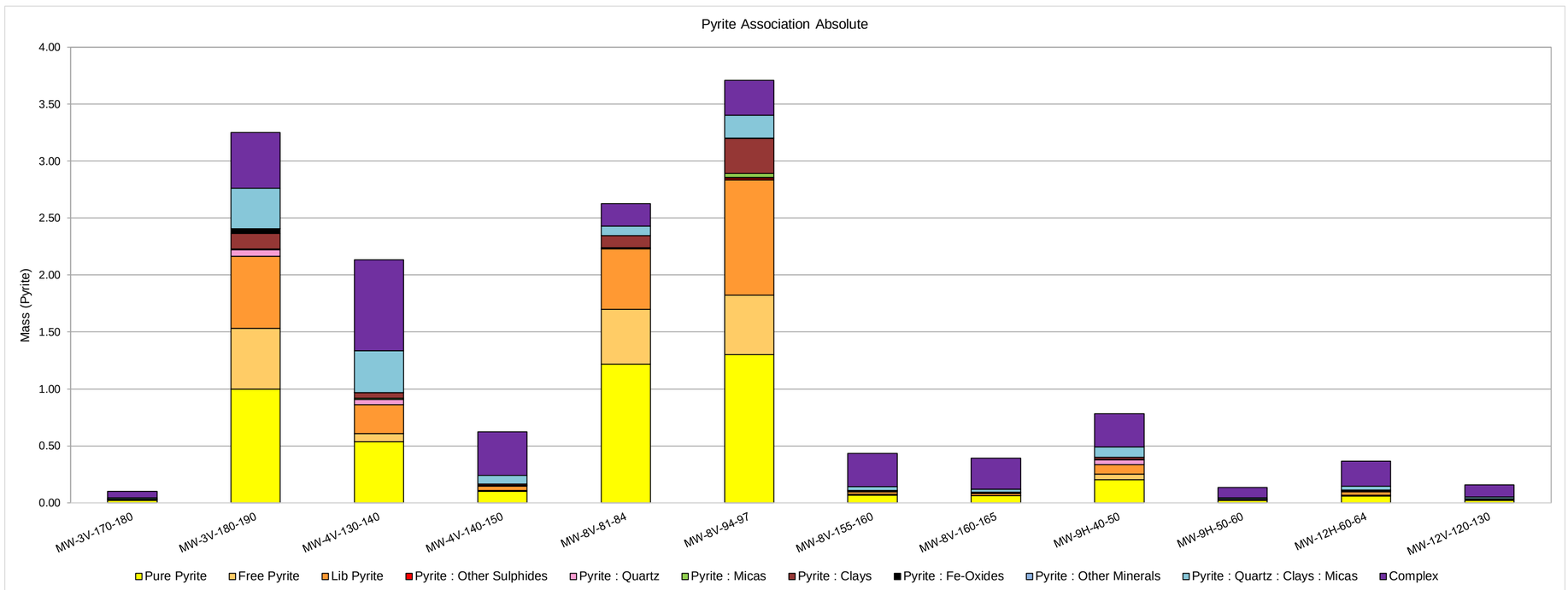
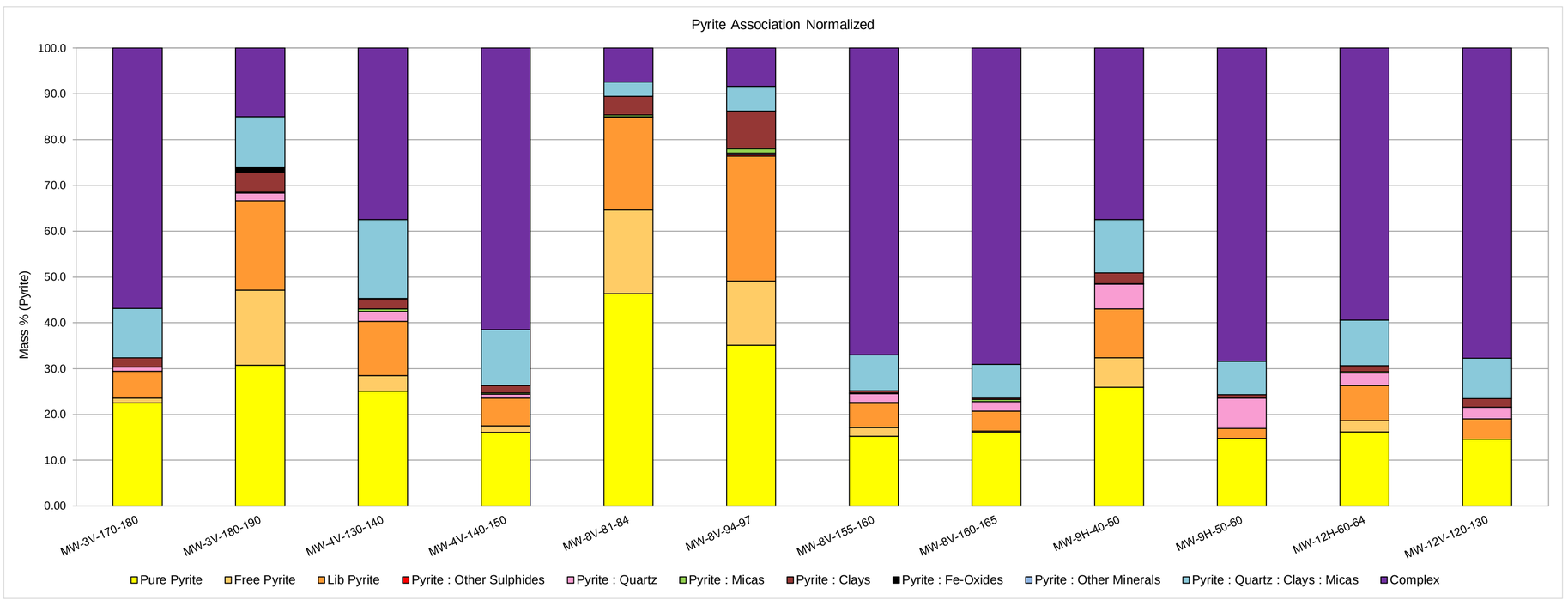
Pyrite Association



Pyrite Association Absolute

Mass (Pyrite)	MW-3V-170-180	MW-3V-180-190	MW-4V-130-140	MW-4V-140-150	MW-8V-81-84	MW-8V-94-97	MW-8V-155-160	MW-8V-160-165	MW-9H-40-50	MW-9H-50-60	MW-12H-60-64	MW-12V-120-130
Pure Pyrite	0.02	1.00	0.54	0.10	1.22	1.30	0.07	0.06	0.20	0.02	0.06	0.02
Free Pyrite	0.00	0.53	0.07	0.01	0.48	0.52	0.01	0.00	0.05	0.00	0.01	0.00
Lib Pyrite	0.01	0.63	0.25	0.04	0.53	1.01	0.02	0.02	0.08	0.00	0.03	0.01
Pyrite : Other Sulphides	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Pyrite : Quartz	0.00	0.06	0.05	0.01	0.00	0.01	0.01	0.01	0.04	0.01	0.01	0.00
Pyrite : Micas	0.00	0.01	0.01	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Pyrite : Clays	0.00	0.14	0.05	0.01	0.11	0.31	0.00	0.00	0.02	0.00	0.01	0.00
Pyrite : Fe-Oxides	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pyrite : Other Minerals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pyrite : Quartz : Clays : Micas	0.01	0.36	0.37	0.08	0.08	0.20	0.03	0.03	0.09	0.01	0.04	0.01
Complex	0.06	0.49	0.80	0.38	0.19	0.31	0.29	0.27	0.29	0.09	0.22	0.11
Mass %	0.10	3.25	2.14	0.62	2.63	3.71	0.43	0.39	0.78	0.14	0.37	0.16



Pyrite Association Normalized

Mass (% Pyrite)	MW-3V-170-180	MW-3V-180-190	MW-4V-130-140	MW-4V-140-150	MW-8V-81-84	MW-8V-94-97	MW-8V-155-160	MW-8V-160-165	MW-9H-40-50	MW-9H-50-60	MW-12H-60-64	MW-12V-120-130
Pure Pyrite	22.5	30.8	25.0	16.1	46.4	35.1	15.2	16.1	25.9	14.7	16.2	14.6
Free Pyrite	0.98	16.4	3.46	1.44	18.2	14.0	1.85	0.26	6.39	0.00	2.47	0.00
Lib Pyrite	5.88	19.4	11.8	6.10	20.2	27.3	5.31	4.35	10.7	2.21	7.67	4.43
Pyrite : Other Sulphides	0.00	0.00	0.00	0.00	0.00	0.38	0.23	0.00	0.00	0.00	0.00	0.00
Pyrite : Quartz	0.98	1.69	2.20	0.80	0.11	0.22	1.85	2.05	5.36	6.62	2.74	2.53
Pyrite : Micas	0.00	0.25	0.51	0.32	0.38	0.94	0.23	0.51	0.13	0.00	0.27	0.00
Pyrite : Clays	1.96	4.24	2.25	1.61	4.08	8.27	0.46	0.26	2.43	0.74	1.37	1.90
Pyrite : Fe-Oxides	0.00	1.17	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pyrite : Other Minerals	0.00	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Pyrite : Quartz : Clays : Micas	10.8	11.0	17.3	12.2	3.16	5.39	7.85	7.42	11.6	7.35	9.86	8.86
Complex	56.9	15.0	37.4	61.5	7.39	8.35	67.0	69.1	37.4	68.4	59.5	67.7
Total	100	100	100	100	100	100	100	100	100	100	100	100
Free and liberated	**29.4**	**66.6**	**40.3**	**23.6**	**84.9**	**76.4**	**22.4**	**20.7**	**43.0**	**16.9**	**26.3**	**19.0**

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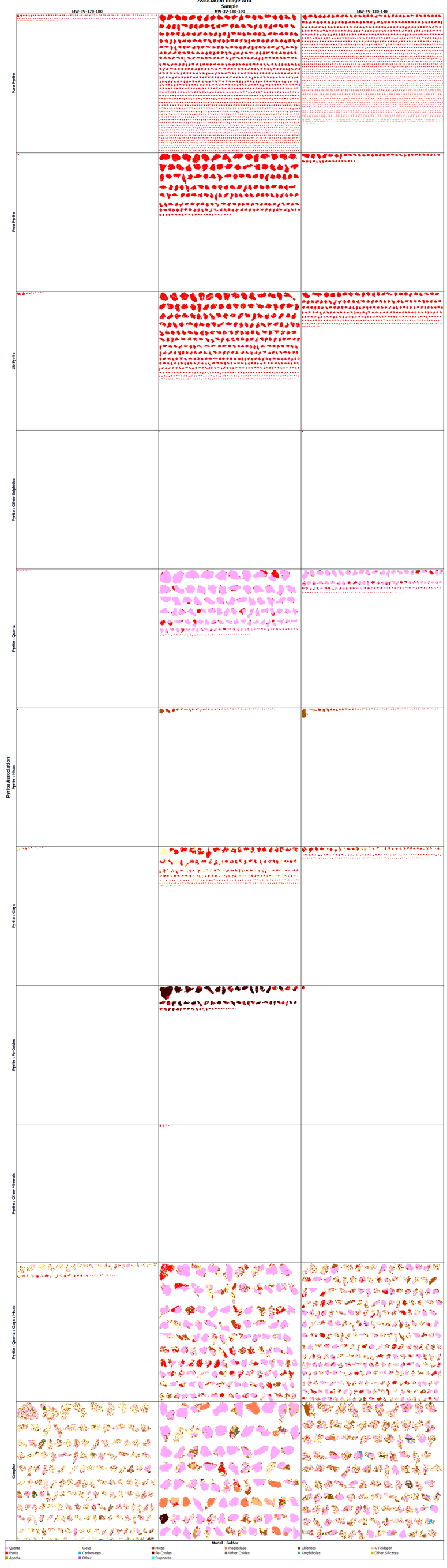
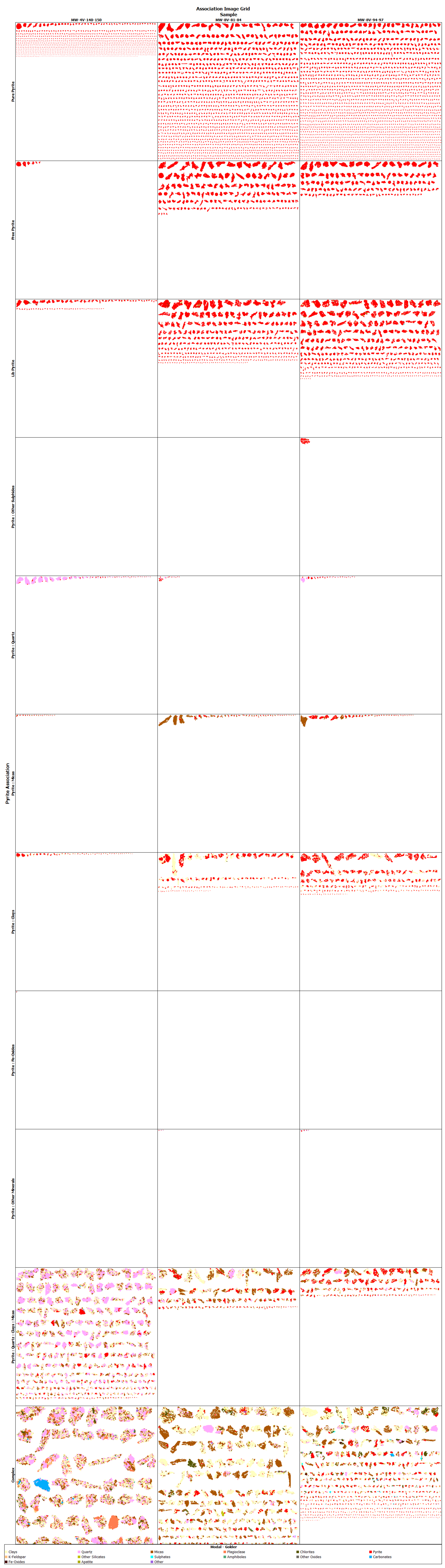
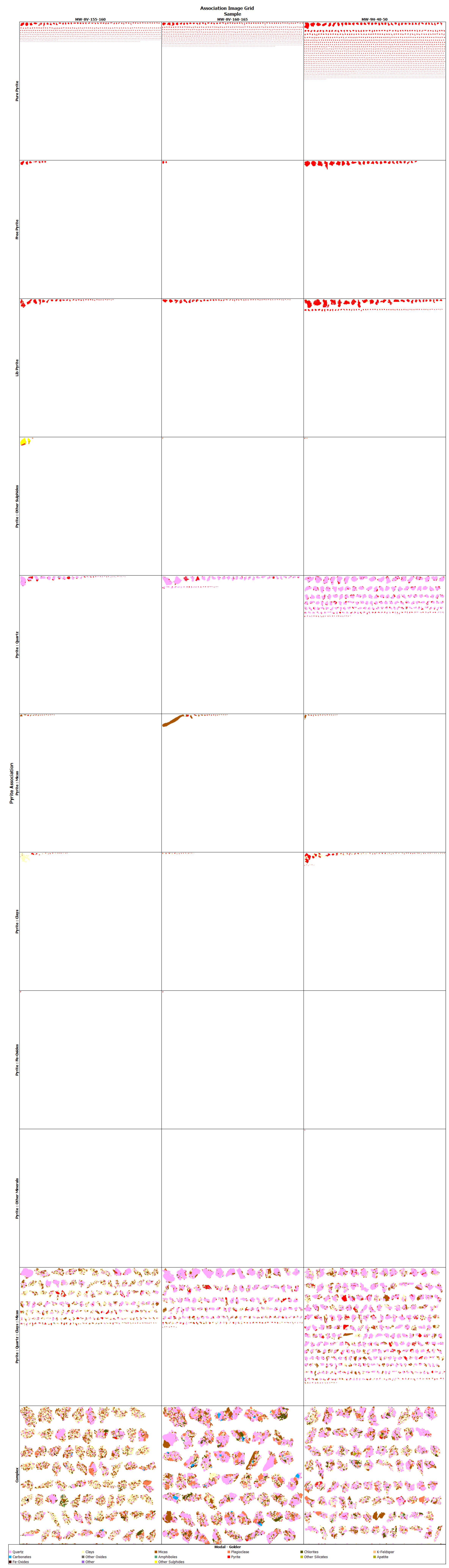
Pyrite Image Grids

Association Image Grid
Sample




Association Image Grid
Sample
MW-4V-140-150
MW-8V-81-84
MW-8V-94-97
Pyrite Association
Pure Pyrite
Free Pyrite
Lib Pyrite
Pyrite : Other Sulphides
Pyrite : Quartz
Pyrite : Micas
Pyrite : Clays
Pyrite : Fe-Oxides
Pyrite : Other Minerals
Pyrite : Quartz : Clays : Micas
Complex
Modal - Golder
Clays
Quartz
Micas
Plagioclase
Chlorites
Pyrite
K-Feldspar
Other Silicates
Sulphates
Amphiboles
Other Oxides
Carbonates
Fe-Oxides
Apatite
Other


Association Image Grid
Sample
MW-8V-155-160
MW-8V-160-165
MW-9H-40-50
Pyrite Association
Pure Pyrite
Free Pyrite
Lib Pyrite
Pyrite : Other Sulphides
Pyrite : Quartz
Pyrite : Micas
Pyrite : Clays
Pyrite : Fe-Oxides
Pyrite : Other Minerals
Pyrite : Quartz : Clays : Micas
Complex
Modal - Golder
Quartz
Clays
Micas
Plagioclase
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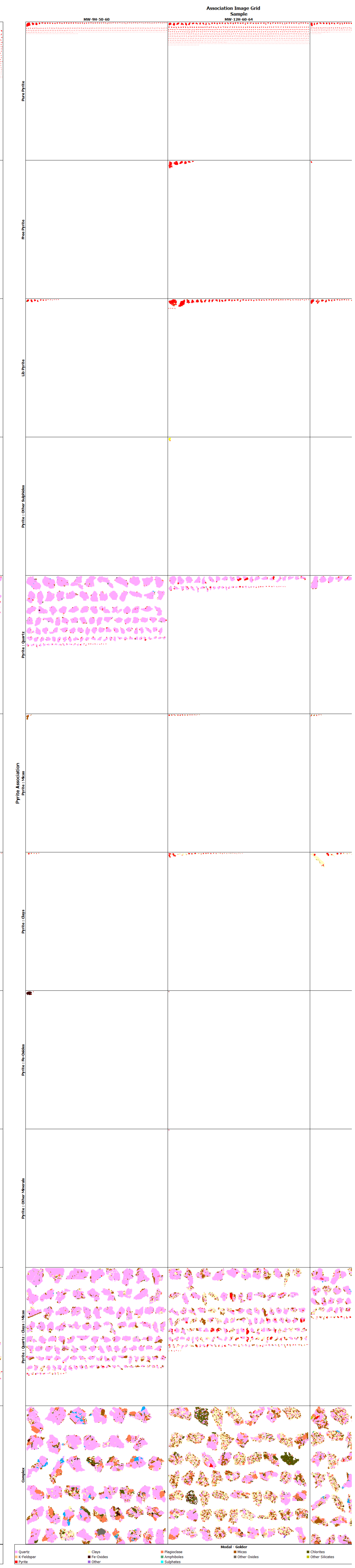
Other
Other Sulphides


Association Image Grid
Sample
MW-9H-50-60
MW-12H-60-64
Pyrite Association
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Free Pyrite
Lib Pyrite
Pyrite : Other Sulphides
Pyrite : Quartz
Pyrite : Micas
Pyrite : Clays
Pyrite : Fe-Oxides
Pyrite : Other Minerals
Pyrite : Quartz : Clays : Micas
Complex
Modal - Golder
Quartz
Clays
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Micas
Chlorites
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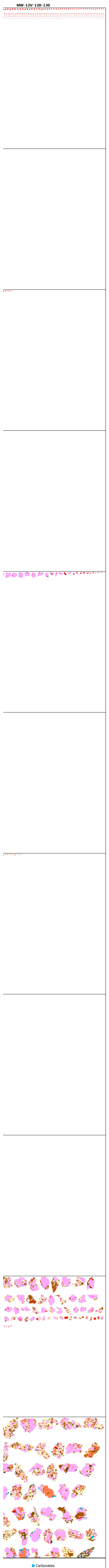
Fe-Oxides
Amphiboles
Other Oxides
Other Silicates
Pyrite
Other
Sulphates


MW-12V-120-130
Carbonates
Apatite

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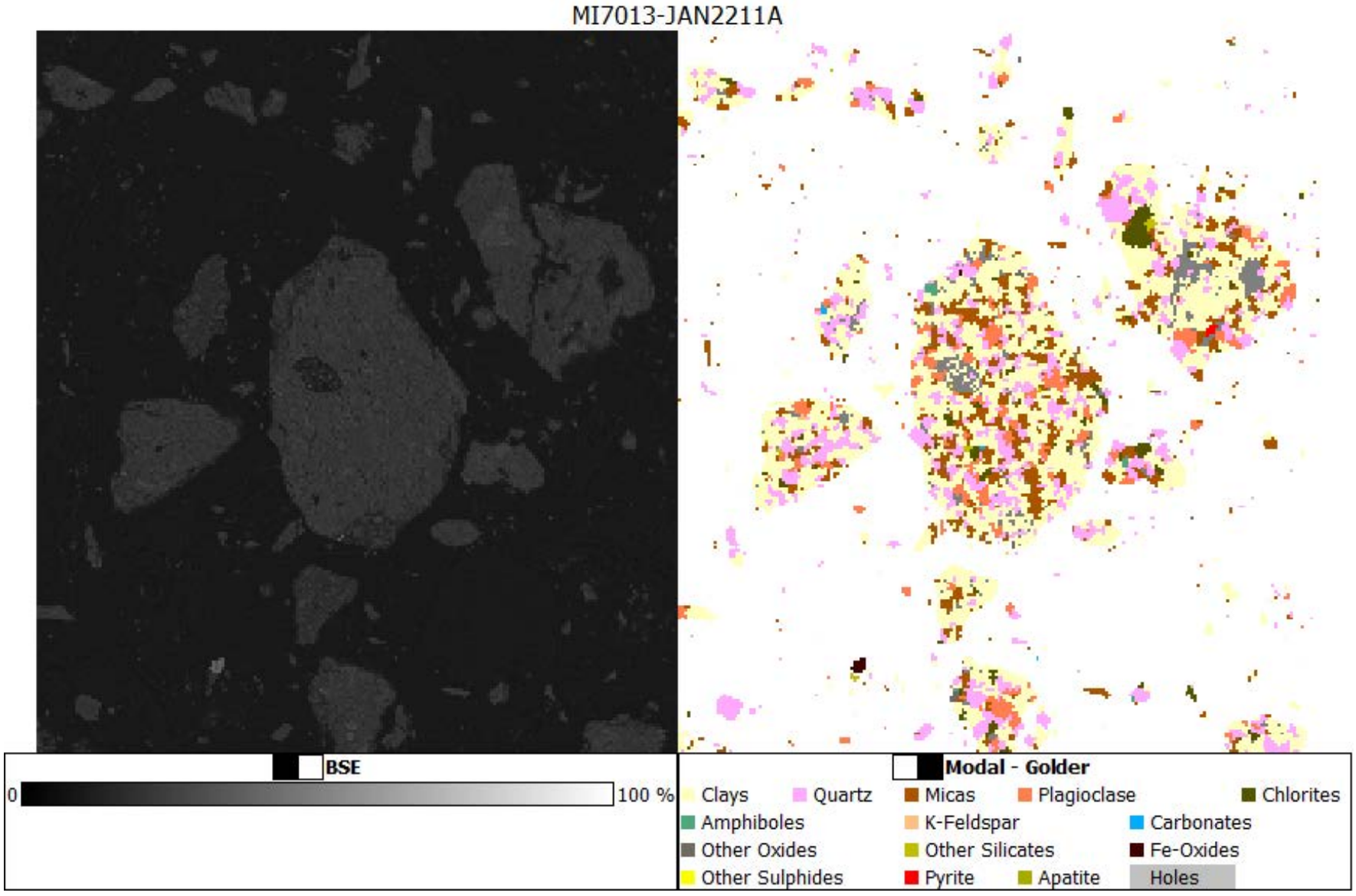
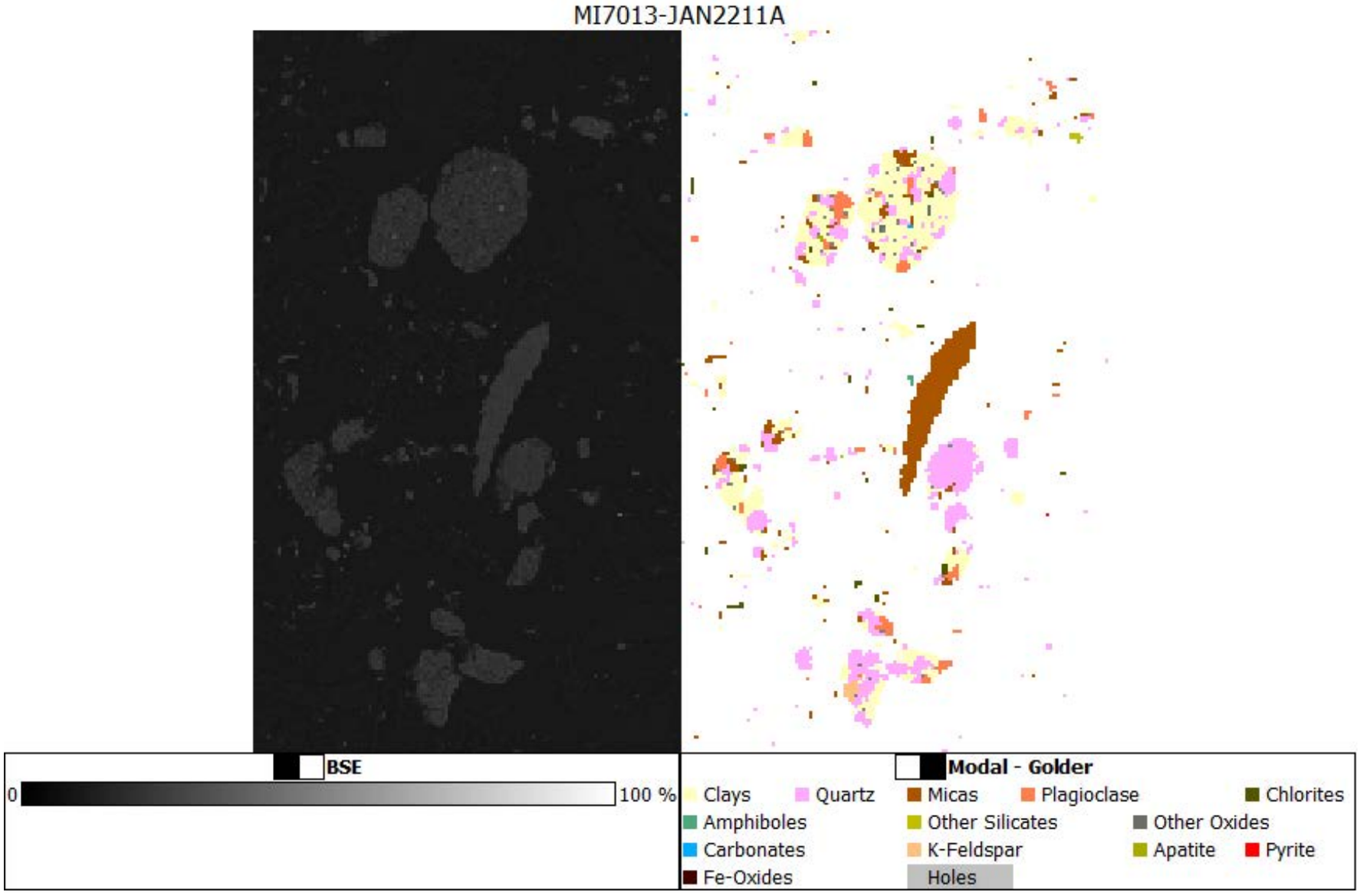
MI7013-JAN22

Sample: MW-3V-170-180

Field H16
MI7013-JAN2211A



Field J16
MI7013-JAN2211A



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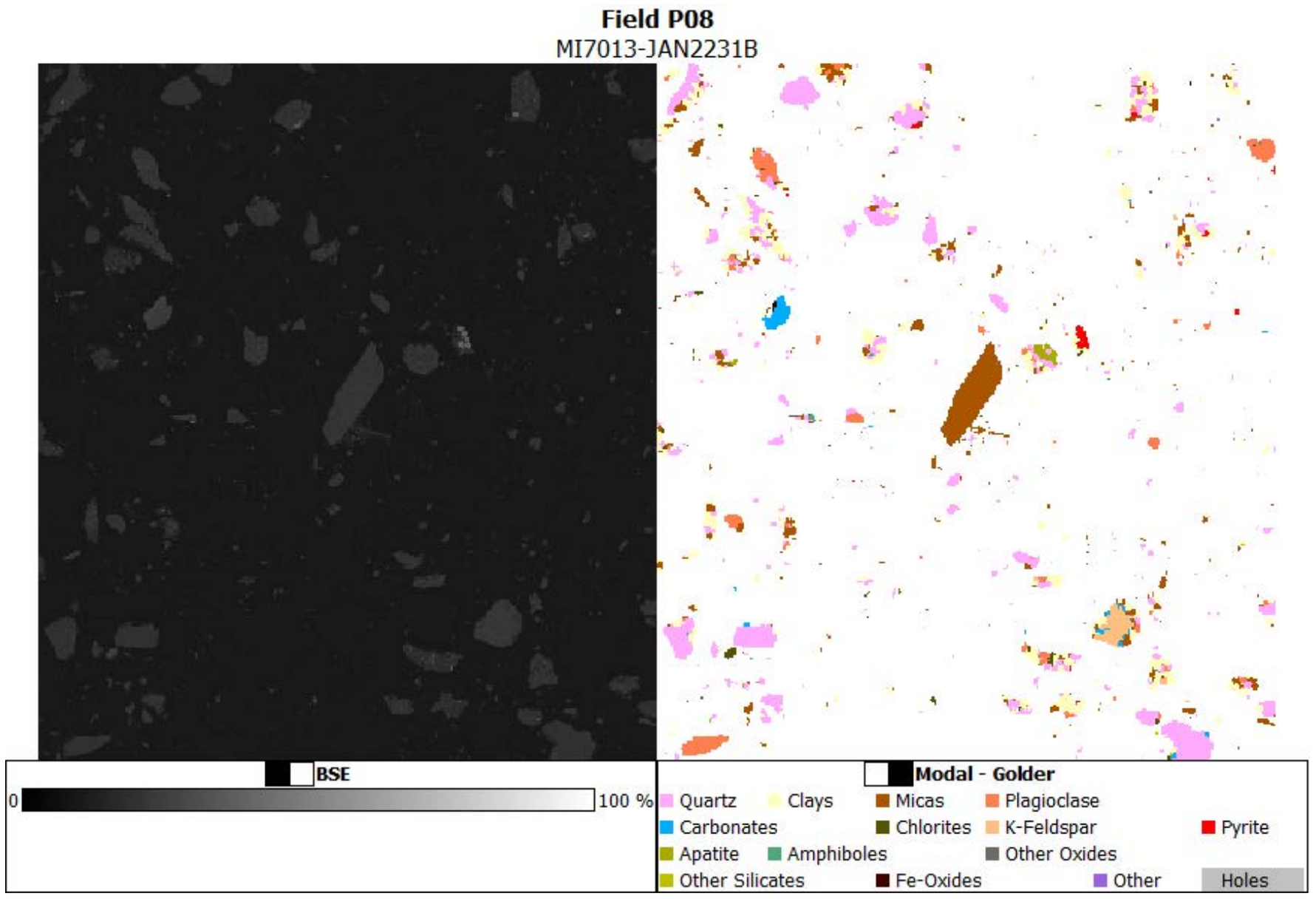
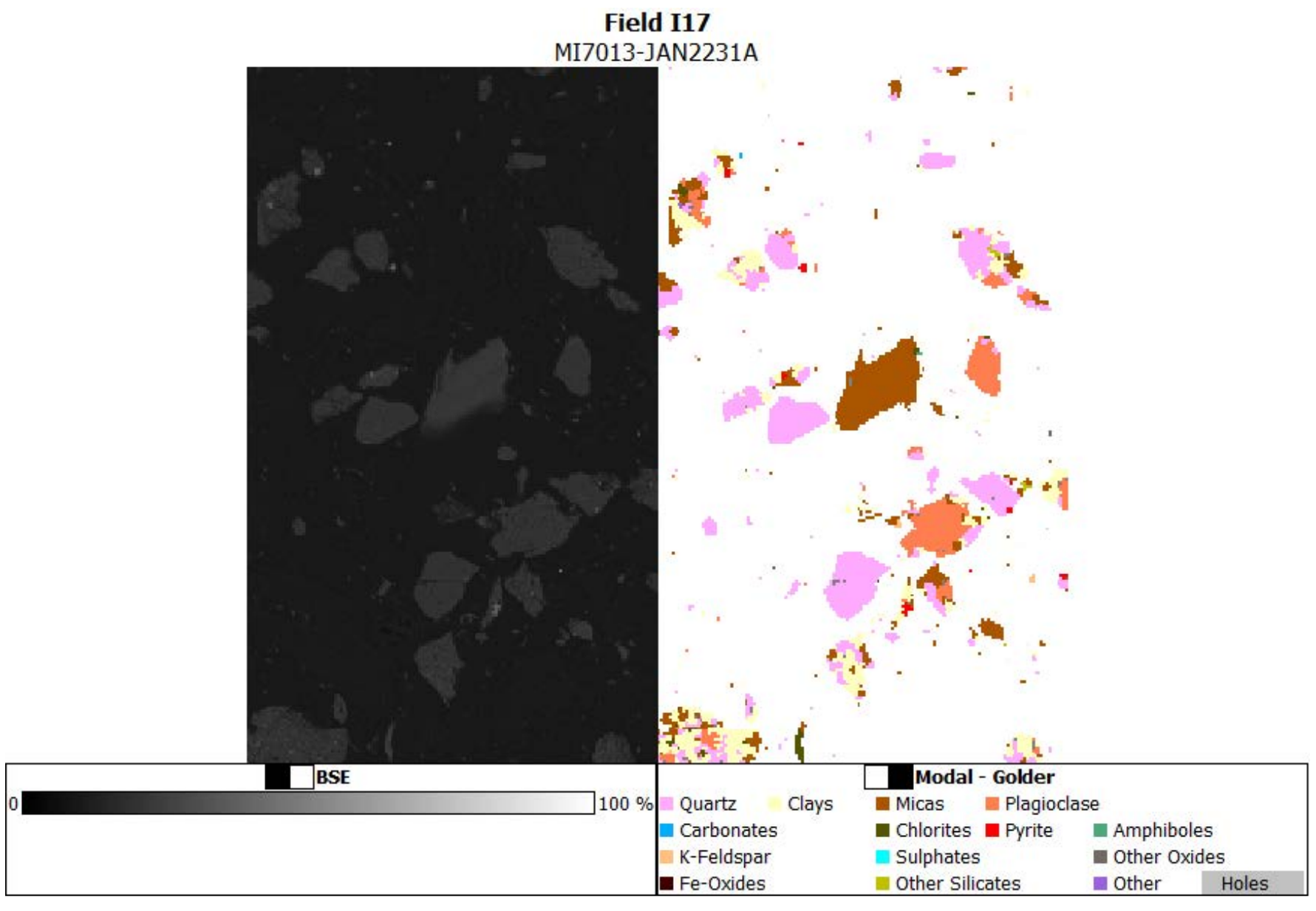
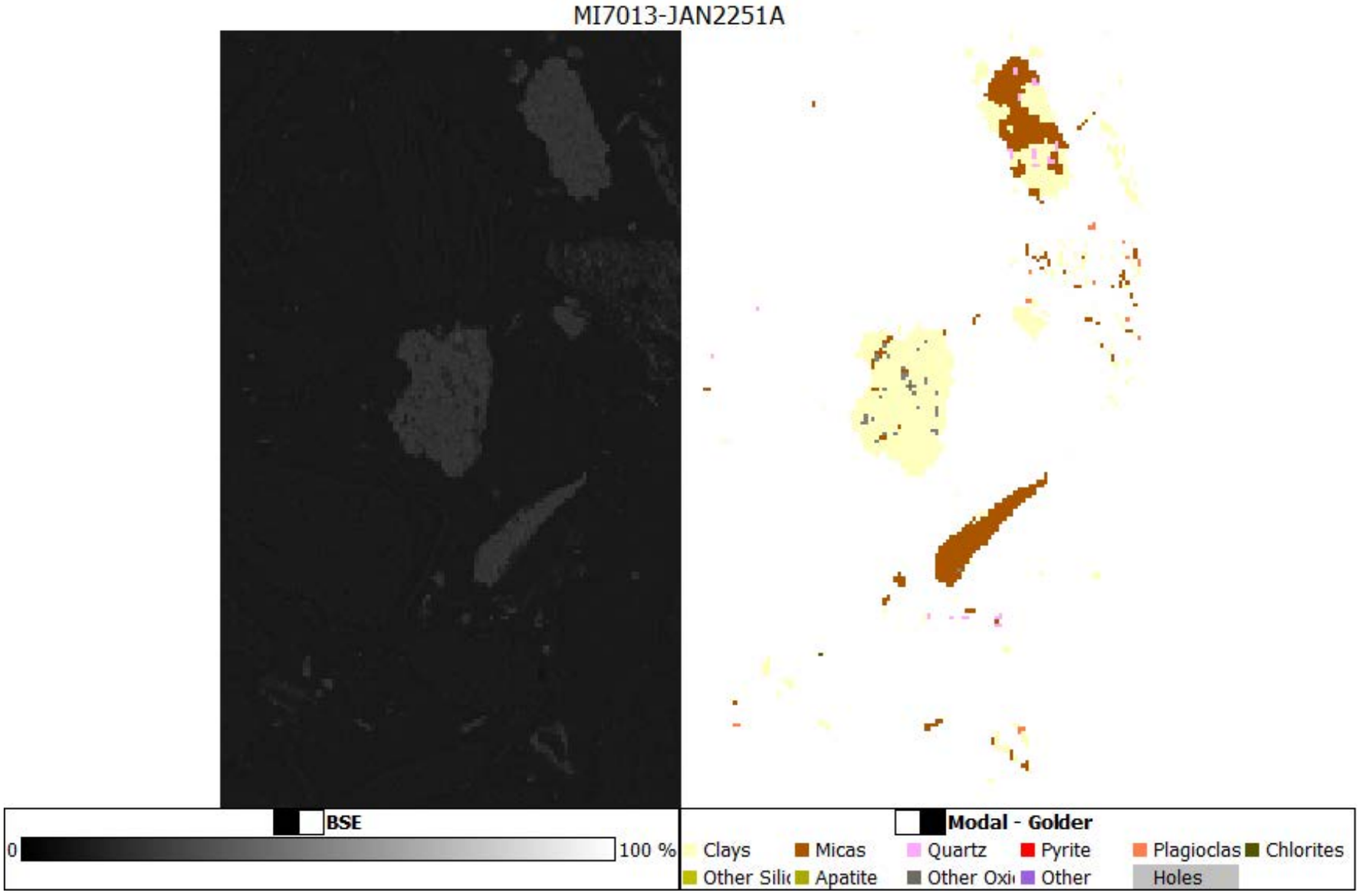


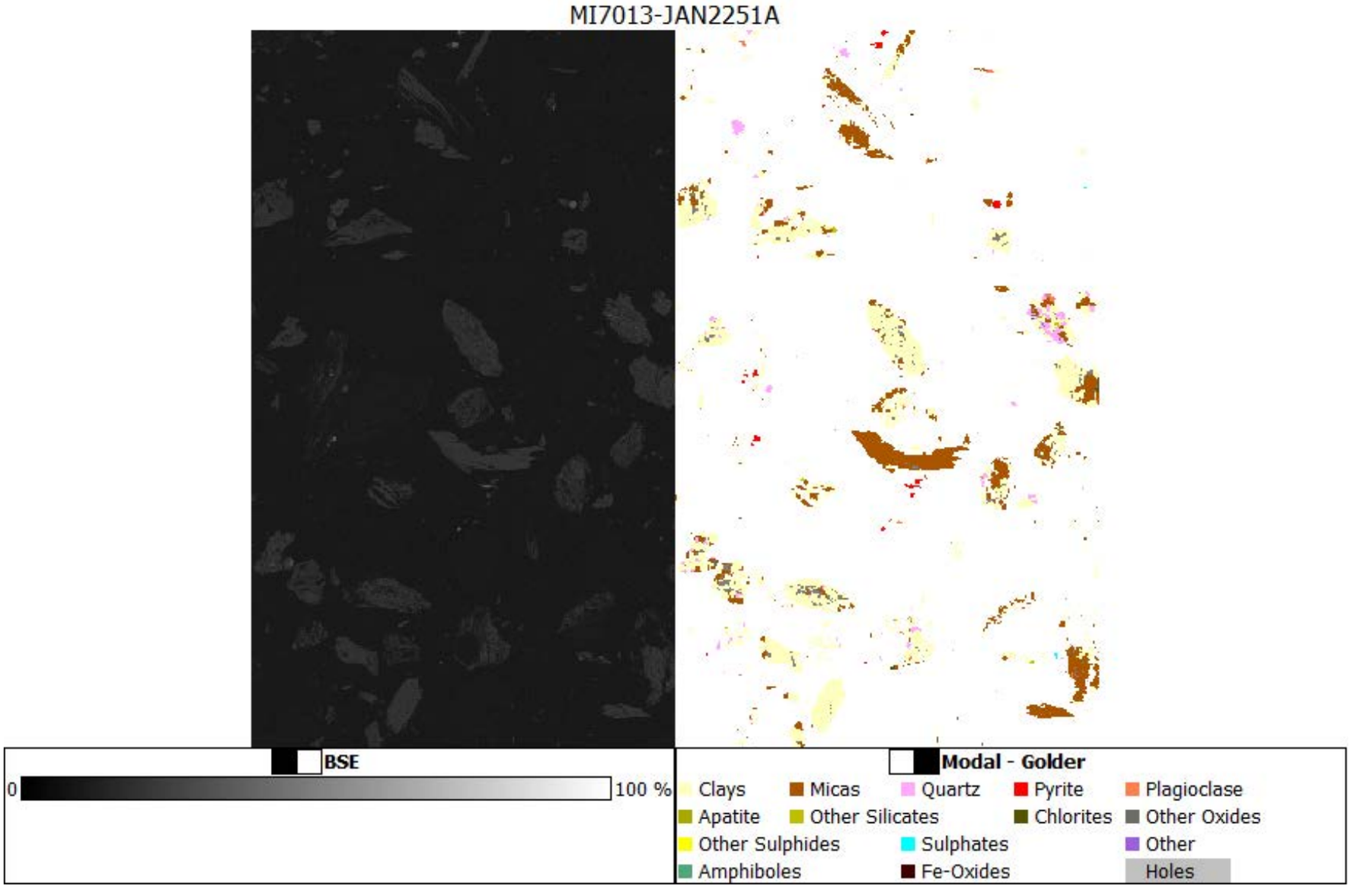


Sample: MW-8V-81-84

Field G15
MI7013-JAN2251A



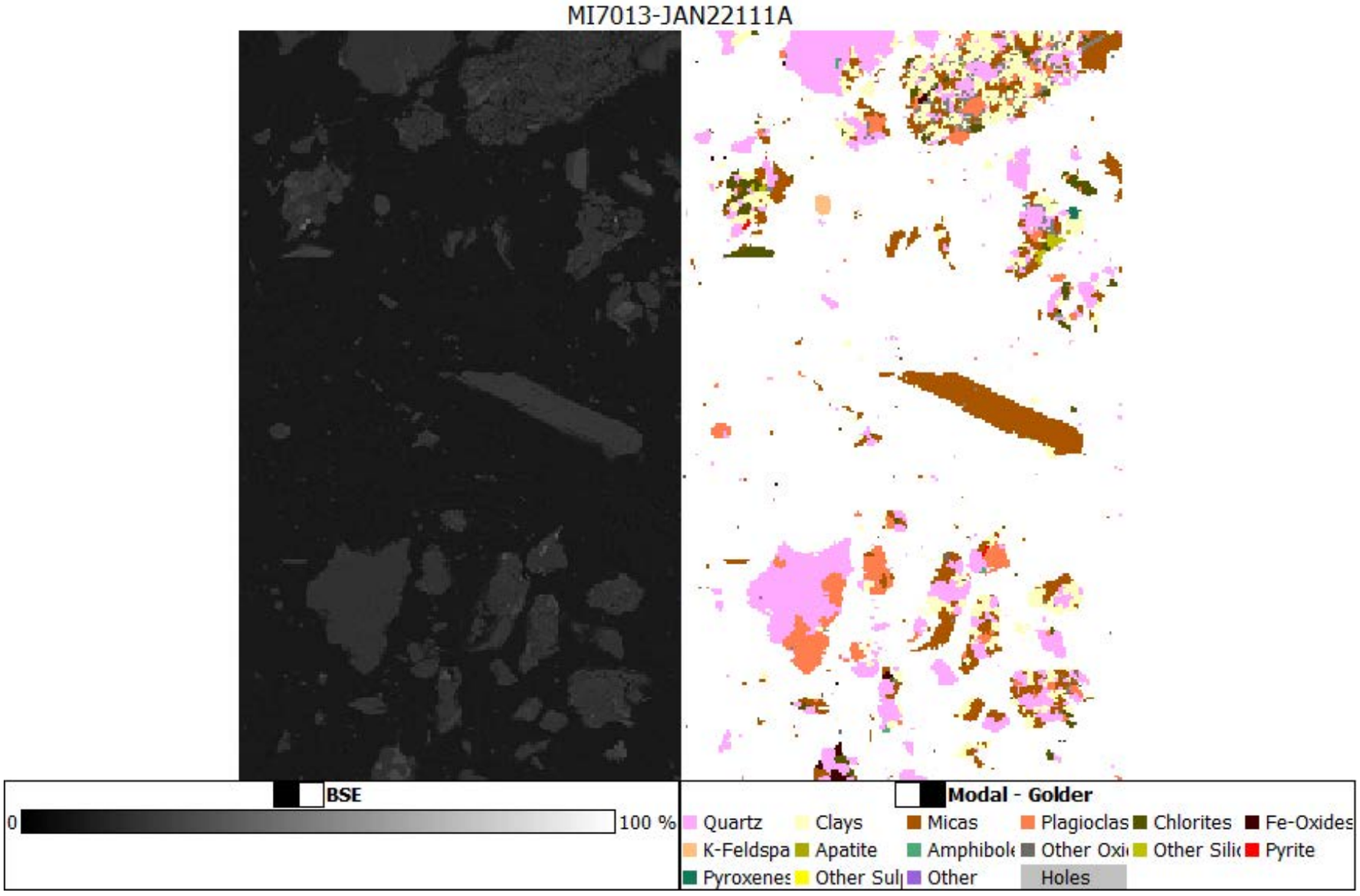
Field D08
MI7013-JAN2251A



Sample: MW-12H-60-64

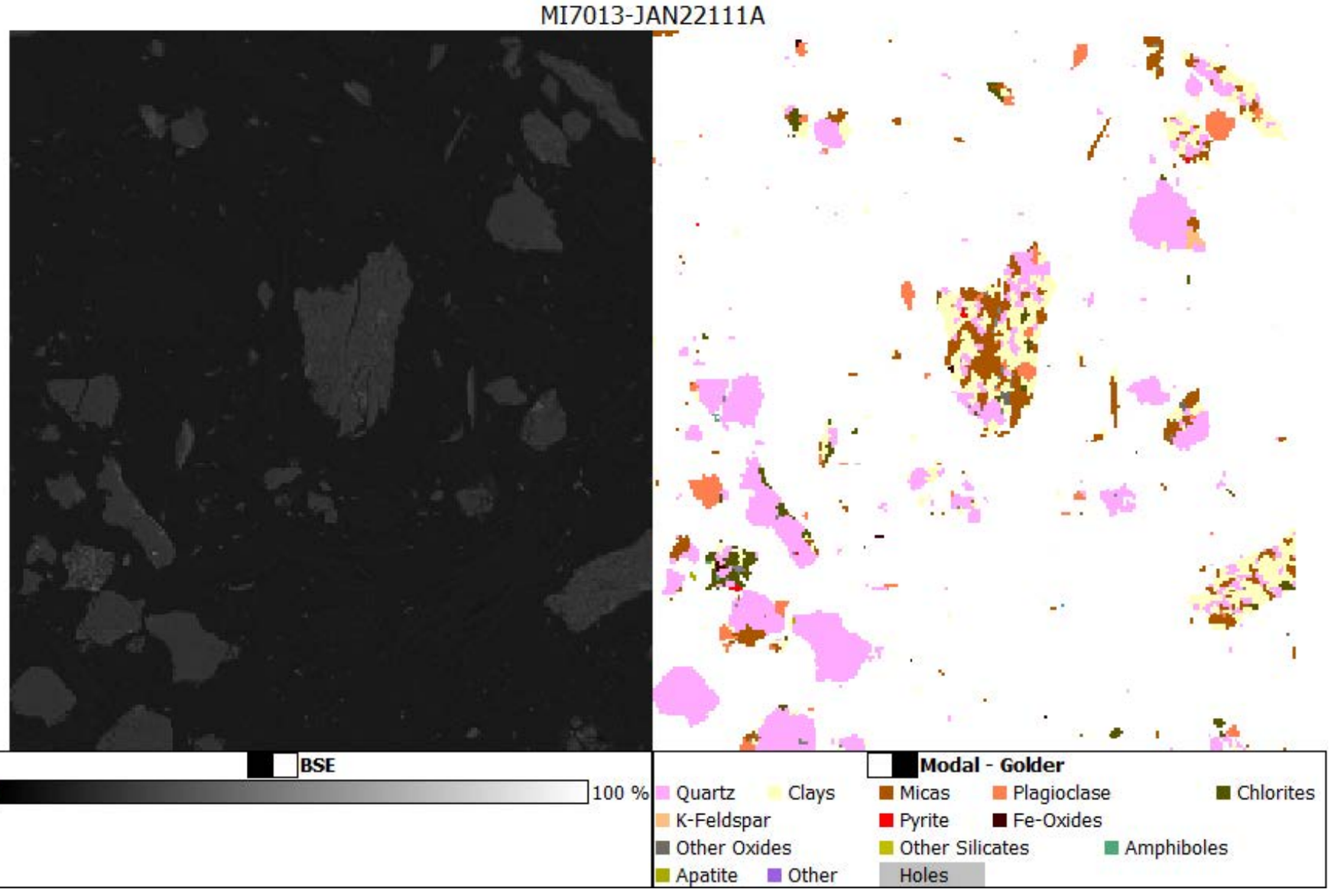
Field O08

MI7013-JAN22111A



Field E07

MI7013-JAN22111A



Oxide Weight Percent:
MW-3V-180-190
21A EMPA

																			LA-ICP-MS	
Pt#	**Na2O**	**MgO**	**Al2O3**	**SiO2**	**K2O**	**CaO**	**TiO2**	**MnO**	**FeO**	**Rb2O**	**Cs2O**	**BaO**	**F**	**Cl**	**Total**	**X(mm)**	**Y(mm)**	**Label**	**LA-ICP #**	**Li7_ppm_mean**
1	1.016	0.000	18.09	62.92	15.76	0.030	0.033	0.004	0.047	0.079	0.000	0.230	0.000	0.018	98.22	59.794	21.8945	Ksp	SGS - 1	BelowLOD
2	0.975	0.000	18.32	62.82	15.63	0.002	0.000	0.003	0.031	0.095	0.000	0.204	0.000	0.006	98.08	59.3125	21.8307	Ksp	SGS - 2	BelowLOD
3	11.34	0.005	19.79	68.13	0.046	0.148	0.029	0.009	0.051	0.056	0.013	0.000	0.000	0.005	99.62	60.2717	22.4315	Plg	SGS - 3	BelowLOD
4	0.008	0.033	36.74	41.81	0.035	0.010	0.000	0.019	0.503	0.014	0.000	0.149	0.087	0.008	79.38	60.393	23.2417	Clay	SGS - 4	70.91
5	0.202	0.923	31.95	50.60	2.562	0.111	0.317	0.005	2.709	0.036	0.020	0.000	0.027	0.014	89.47	61.0557	21.4775	Clay	SGS - 5	667.28
6	2.023	1.409	29.67	49.40	4.880	0.134	0.416	0.003	3.010	0.038	0.001	0.213	0.000	0.029	91.21	60.4622	21.8422	Clay	SGS - 6	389.75
7	0.299	1.559	28.82	44.79	9.620	0.006	1.489	0.042	3.870	0.029	0.000	0.149	0.021	0.013	90.69	62.9132	21.4712	Mica	SGS - 7	35.57
8	10.30	0.007	21.24	64.43	0.246	2.267	0.000	0.000	0.133	0.024	0.000	0.000	0.000	0.003	98.66	62.6445	21.435	Plg	SGS - 8	BelowLOD
9	0.183	6.060	21.76	34.84	2.942	0.229	3.300	0.063	16.92	0.035	0.000	0.138	0.186	0.029	86.61	62.5605	21.7802	Clay	SGS - 9	370.21
10	11.75	0.000	18.99	67.27	0.038	0.024	0.048	0.006	0.063	0.022	0.001	0.000	0.000	0.008	98.21	64.5787	22.9415	Plg	SGS - 10	BelowLOD
11	0.295	1.358	32.95	42.79	3.540	0.061	1.129	0.010	3.580	0.005	0.000	0.000	0.101	0.037	85.80	63.7907	22.4757	Clay	SGS - 11	1497.99
12	0.735	0.045	19.15	63.71	15.36	0.000	0.026	0.000	0.127	0.041	0.003	0.221	0.000	0.024	99.43	65.6867	20.0945	Ksp	SGS - 12	84.09
13	11.71	0.030	20.29	66.55	0.096	0.142	0.000	0.000	0.027	0.016	0.000	0.027	0.000	0.015	98.90	65.3832	20.081	Plg	SGS - 13	BelowLOD
14	1.117	0.000	17.70	64.11	15.43	0.000	0.000	0.001	0.077	0.052	0.000	0.060	0.000	0.005	98.55	64.8852	20.228	Ksp	SGS - 14	BelowLOD
15	0.019	0.192	38.28	46.79	0.589	0.089	0.003	0.000	0.377	0.009	0.000	0.000	0.033	0.009	86.37	67.7615	21.622	Clay	SGS - 15	147.12
16	11.14	0.171	20.87	65.74	0.567	0.443	0.070	0.022	0.522	0.022	0.000	0.000	0.005	0.017	99.57	68.2352	21.3977	Plg	SGS - 16	288.40
17	0.257	1.302	30.93	44.95	3.330	0.117	0.444	0.006	4.410	0.043	0.000	0.000	0.091	0.027	85.86	68.5885	21.5907	Clay	SGS - 17	1160.77
18	0.380	1.480	33.13	47.47	9.650	0.039	0.730	0.025	2.517	0.024	0.000	0.240	0.084	0.000	95.73	69.644	21.429	Mica	SGS - 18	35.74
19	0.532	1.200	28.93	49.81	3.940	0.213	1.640	0.006	6.490	0.031	0.000	0.000	0.058	0.014	92.84	69.9657	21.6415	Clay	SGS - 19	458.46
20	0.118	0.904	33.18	51.52	2.642	0.146	0.447	0.023	2.552	0.006	0.000	0.325	0.123	0.016	91.94	70.5937	21.602	Clay	SGS - 20	814.02
21	10.44	0.000	21.45	66.46	0.257	2.142	0.020	0.004	0.039	0.042	0.000	0.000	0.000	0.015	100.86	68.8902	20.5052	Plg	SGS - 21	BelowLOD
22	0.195	1.181	34.22	47.88	2.954	0.154	0.962	0.024	3.320	0.020	0.000	0.198	0.073	0.015	91.16	68.4935	20.9255	Clay	SGS - 22	I.S.
23	1.105	1.014	34.25	44.24	7.860	0.034	0.567	0.008	1.277	0.030	0.000	0.441	0.025	0.017	90.85	68.7417	21.1862	Mica	SGS - 23	29.31
24	0.596	0.923	21.67	53.96	3.610	0.077	0.538	0.005	6.700	0.034	0.000	0.201	0.141	0.046	88.43	71.9335	21.884	Clay	SGS - 24	651.50
25	0.514	0.004	18.17	62.85	16.06	0.015	0.000	0.014	0.138	0.096	0.000	0.199	0.000	0.000	98.05	72.0132	22.1272	Ksp	SGS - 25	10.03
26	11.44	0.000	19.29	67.76	0.061	0.286	0.000	0.009	0.097	0.025	0.000	0.022	0.000	0.005	98.99	71.7935	22.5532	Plg	SGS - 26	27.70
27	0.478	0.940	33.49	45.08	9.630	0.009	0.841	0.005	1.755	0.021	0.000	0.455	0.122	0.008	92.79	73.433	22.886	Mica	SGS - 27	67.02
28	0.186	0.829	33.81	50.23	2.592	0.077	0.269	0.000	2.223	0.021	0.000	0.000	0.055	0.014	90.28	73.0252	23.5955	Clay	SGS - 28	566.16
29	0.391	1.331	32.13	42.27	3.340	0.170	1.127	0.011	4.180	0.025	0.000	0.054	0.082	0.012	85.09	73.5895	23.276	Clay	SGS - 29	1193.64
30	4.840	1.022	16.73	54.02	2.386	0.624	0.895	0.090	6.980	0.047	0.000	0.243	0.028	0.012	87.91	68.3175	23.5017	Clay	SGS - 30	72.22
31	0.391	1.413	29.41	43.59	3.770	0.084	0.809	0.010	3.990	0.058	0.013	0.000	0.073	0.004	83.59	68.081	23.9762	Clay	SGS - 31	909.35
32	0.124	0.781	25.85	61.00	2.570	0.061	0.486	0.000	2.483	0.017	0.003	0.166	0.246	0.028	93.70	68.4497	24.0745	Clay	SGS - 32	687.07
33	0.296	1.517	34.41	48.51	3.320	0.156	1.664	0.021	4.270	0.050	0.000	0.000	0.126	0.020	94.31	68.869	24.197	Clay	SGS - 33	1371.41
34	0.723	0.000	18.16	64.35	16.15	0.000	0.000	0.008	0.212	0.058	0.000	0.000	0.000	0.009	99.67	68.6975	24.6622	Ksp	SGS - 34	170.94
35	0.171	1.046	33.34	48.09	2.863	0.122	0.397	0.000	2.897	0.016	0.000	0.030	0.046	0.008	89.01	68.6312	24.6595	Clay	SGS - 35	I.S.
36	0.098	0.739	14.97	73.48	2.214	0.074	0.336	0.001	3.050	0.053	0.000	0.198	0.018	0.005	95.23	68.0627	24.581	Clay	SGS - 36	125.66
37	0.218	1.034	30.60	40.88	4.730	0.137	0.668	0.000	3.060	0.048	0.000	0.117	0.107	0.030	81.58	65.2127	24.0252	Clay	SGS - 37	508.43
38	0.305	1.386	29.52	45.18	10.50	0.000	1.333	0.000	5.130	0.016	0.000	0.511	0.059	0.003	93.91	64.7265	24.043	Mica	SGS - 38	15.52
39	0.749	0.015	18.70	64.19	15.49	0.050	0.039	0.000	0.122	0.039	0.009	0.245	0.000	0.000	99.65	65.6725	25.5642	Ksp	SGS - 39	19.82
40	0.368	1.068	22.97	50.30	2.724	0.036	0.380	0.038	4.650	0.009	0.000	0.005	0.037	0.072	82.63	65.7602	24.8442	Clay	SGS - 40	255.78
41	0.192	0.985	32.38	47.38	3.000	0.040	0.332	0.015	2.961	0.037	0.000	0.081	0.093	0.049	87.50	65.2382	26.6055	Clay	SGS - 41	891.53
42	0.858	0.005	18.83	63.74	15.92	0.007	0.017	0.000	0.000	0.046	0.000	0.339	0.000	0.000	99.76	65.1645	26.5575	Ksp	SGS - 42	8.69
43	11.52	0.000	19.28	68.02	0.069	0.258	0.000	0.014	0.026	0.037	0.000	0.020	0.000	0.004	99.23	64.6625	26.651	Plg	SGS - 43	BelowLOD
44	0.287	0.017	18.26	63.99	16.26	0.000	0.000	0.015	0.125	0.071	0.018	0.020	0.000	0.009	99.07	64.5172	27.1542	Ksp	SGS - 44	32.92
45	0.239	0.888	29.36	47.13	5.220	0.169	0.744	0.014	4.090	0.033	0.000	0.135	0.101	0.006	88.09	63.8457	27.0957	Clay	SGS - 45	426.30
46	3.560	0.663	23.77	53.33	2.218	0.138	0.483	0.039	1.925	0.029	0.000	0.094	0.072	0.007	86.29	63.3045	27.3407	Clay	~~SGS - 46~~	~~616.50~~
47	0.970	0.000	18.48	65.13	15.58	0.012	0.007	0.014	0.056	0.038	0.000	0.306	0.000	0.007	100.59	63.0107	27.296	Ksp	SGS - 47	BelowLOD
48	11.37	0.011	18.94	68.99	0.113	0.110	0.010	0.000	0.055	0.023	0.000	0.000	0.000	0.000	99.63	61.6822	25.363	Plg	SGS - 48	BelowLOD
49	0.645	0.000	18.40	63.59	16.16	0.000	0.018	0.000	0.062	0.089	0.000	0.054	0.000	0.004	99.02	61.6182	25.5582	Ksp	SGS - 49	BelowLOD
50	0.357	0.000	18.06	63.18	16.20	0.001	0.000	0.000	0.068	0.058	0.000	0.591	0.000	0.000	98.52	61.5575	25.6027	Ksp	SGS - 50	BelowLOD
51	1.511	0.099	21.01	64.95	11.26	0.077	0.143	0.006	0.258	0.041	0.000	0.323	0.000	0.017	99.70	59.8655	26.3135	Ksp	SGS - 51	10.95
52	0.120	0.379	12.63	80.84	1.287	0.047	0.352	0.018	1.066	0.087	0.000	0.000	0.047	0.007	96.86	59.3785	26.4997	Clay	~~SGS - 52~~	~~224.07~~
53	0.004	0.000	0.000	99.74	0.000	0.001	0.005	0.003	0.074	0.080	0.000	0.021	0.000	0.000	99.93	59.4105	26.1235	Qtz	SGS - 53	BelowLOD

MW-4V-130-140
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Pt#	**Na2O**	**MgO**	**Al2O3**	**SiO2**	**K2O**	**CaO**	**TiO2**	**MnO**	**FeO**	**Rb2O**	**Cs2O**	**BaO**	**F**	**Cl**	**Total**	**X(mm)**	**Y(mm)**	**Label**	**LA-ICP #**	**Li7_ppm_mean**
54	0.205	2.117	20.69	59.99	4.470	0.151	0.506	0.026	2.764	0.033	0.000	0.124	0.220	0.000	91.21	39.1692	0.6612	Clay	SGS - 54	62.19
55	10.81	0.025	20.76	67.96	0.208	0.885	0.023	0.044	0.217	0.017	0.000	0.165	0.000	0.001	101.12	39.4217	1.0582	Plg	SGS - 55	12.76
56	0.109	7.630	15.54	26.43	0.593	9.010	0.889	0.155	21.01	0.003	0.000	0.049	0.426	0.007	81.66	38.7395	1.5855	Ca-Fe Sil	SGS - 56	136.61
57	0.524	1.029	8.990	79.78	2.015	0.463	0.119	0.050	3.040	0.039	0.014	0.041	0.063	0.013	96.15	39.259	2.3545	Clay	SGS - 57	31.55
58	0.555	0.000	18.80	63.12	16.06	0.000	0.000	0.008	0.173	0.050	0.030	0.000	0.000	0.011	98.80	38.6165	2.4955	Ksp	SGS - 58	BelowLOD
59	1.581	1.587	25.34	55.29	5.460	0.086	0.222	0.011	4.710	0.040	0.000	0.283	0.071	0.014	94.66	37.8605	2.6677	Clay	SGS - 59	52.41
60	1.111	0.002	18.91	63.06	15.27	0.058	0.000	0.000	0.132	0.058	0.000	0.198	0.000	0.007	98.80	35.955	2.625	Ksp	SGS - 60	BelowLOD
61	1.297	2.464	22.26	56.53	4.330	0.300	0.317	0.065	6.670	0.027	0.000	0.000	0.139	0.025	94.36	35.7662	2.2927	Clay	SGS - 61	87.48
62	0.000	14.71	22.20	25.50	0.032	0.077	0.077	0.341	24.38	0.010	0.008	0.057	0.050	0.006	87.43	35.3145	2.5685	Chl	SGS - 62	86.25
63	0.001	15.75	18.34	27.74	0.000	0.032	0.047	0.280	25.29	0.000	0.010	0.000	0.040	0.009	87.52	34.9087	2.0877	Chl	SGS - 63	57.44
64	0.182	1.242	17.34	69.21	4.630	0.073	0.585	0.018	3.140	0.043	0.002	0.110	0.073	0.026	96.63	34.8572	2.847	Clay	~~SGS - 64~~	~~68.07~~
65	0.008	0.000	0.010	99.50	0.000	0.004	0.000	0.014	0.095	0.058	0.000	0.035	0.000	0.001	99.72	34.6755	3.4327	Qtz	SGS - 65	I.S.
66	0.727	1.194	13.97	65.56	3.250	0.557	2.155	0.022	2.850	0.027	0.000	0.015	0.058	0.083	90.42	33.6375	3.8027	Clay	~~SGS - 66~~	~~48.73~~
67	3.990	1.404	24.09	61.40	4.950	0.054	0.466	0.012	2.110	0.029	0.004	0.209	0.069	0.006	98.76	33.3857	4.5315	Clay	SGS - 67	79.91
68	10.51	0.012	19.67	65.77	0.484	1.003	0.000	0.011	0.209	0.033	0.000	0.210	0.000	0.004	97.91	32.7577	4.424	Plg	SGS - 68	BelowLOD
69	11.46	0.000	20.08	66.41	0.026	0.188	0.000	0.000	0.154	0.031	0.002	0.000	0.000	0.000	98.35	31.4925	4.8092	Plg	SGS - 69	BelowLOD
70	10.47	0.004	21.33	66.45	0.108	2.002	0.016	0.010	0.107	0.028	0.010	0.000	0.000	0.005	100.54	31.3435	5.2175	Plg	SGS - 70	BelowLOD
71	11.77	0.014	18.87	66.01	0.052	0.370	0.013	0.012	0.093	0.038	0.000	0.026	0.000	0.006	97.27	30.892	6.0887	Plg	SGS - 71	BelowLOD
72	0.463	1.481	24.87	43.18	7.330	0.075	0.598	0.039	3.670	0.065	0.000	0.169	0.106	0.033	82.03	31.7162	6.3567	Clay	SGS - 72	74.89
73	0.414	2.029	16.37	51.25	3.110	0.127	0.503	0.014	8.230	0.041	0.003	0.000	0.241	0.017	82.24	33.3757	5.988	Clay	SGS - 73	49.67
74	0.180	0.681	0.000	0.074	0.025	56.47	0.000	0.116	1.021	0.000	0.000	0.000	0.157	0.015	58.67	34.895	5.346	Calcite	SGS - 74	I.S.
75	1.503	0.965	22.99	56.70	4.980	0.058	0.200	0.009	2.357	0.044	0.005	0.027	0.134	0.021	89.94	36.289	5.6205	Clay	SGS - 75	72.22
76	0.173	1.260	14.12	72.99	3.380	0.086	0.633	0.004	2.922	0.074	0.000	0.112	0.130	0.031	95.85	35.478	4.7102	Clay	SGS - 76	45.92
77	0.844	0.008	18.49	65.87	15.37	0.042	0.056	0.003	0.052	0.037	0.000	0.422	0.000	0.000	101.19	35.0245	4.7197	Ksp	SGS - 77	BelowLOD
78	10.33	0.068	20.39	66.91	1.056	0.090	0.000	0.019	0.142	0.013	0.000	0.355	0.000	0.003	99.37	36.0342	4.4095	Plg	SGS - 78	BelowLOD
79	0.875	0.003	18.42	66.20	15.47	0.000	0.002	0.000	0.044	0.044	0.006	0.092	0.000	0.006	101.17	39.1782	4.6377	Ksp	SGS - 79	BelowLOD
80	0.000	0.000	0.012	0.610	0.012	53.63	0.000	0.008	0.141	0.005	0.000	0.011	3.900	0.046	56.72	39.7115	4.5622	Apat (see	SGS - 80	14.71
81	0.062	6.540	18.90	32.72	7.090	0.059	2.388	0.103	25.09	0.055	0.014	0.061	0.370	0.000	93.29	39.7187	3.7497	Mica	SGS - 81	70.34
82	4.940	1.561	22.36	57.04	4.830	0.008	0.271	0.000	4.100	0.038	0.000	0.123	0.000	0.002	95.27	41.4172	2.7902	Clay	SGS - 82	43.00
83	0.527	1.331	29.68	50.60	7.360	0.241	0.597	0.000	3.200	0.018	0.000	0.328	0.040	0.028	93.92	42.177	2.781	Mica	SGS - 83	33.04
84	1.181	1.191	34.64	46.77	8.930	0.020	0.479	0.024	1.969	0.032	0.000	0.097	0.005	0.009	95.34	42.923	2.519	Mica	SGS - 84	90.42
85	0.260	0.541	0.010	0.076	0.023	54.39	0.000	0.022	0.122	0.009	0.000	0.040	0.018	0.007	55.50	43.4905	2.5232	Calcite	SGS - 85	5.34
86	0.156	2.332	23.88	55.57	8.090	0.049	0.166	0.040	5.060	0.049	0.000	0.000	0.162	0.004	95.49	43.5765	0.828	Mica	SGS - 86	37.69
87	1.537	1.765	19.40	58.13	4.130	0.142	3.180	0.020	4.910	0.028	0.003	0.107	0.162	0.026	93.46	44.459	2.2865	Clay	SGS - 87	97.83
88	10.93	0.057	19.41	67.56	0.150	1.228	0.057	0.016	0.127	0.032	0.007	0.000	0.000	0.013	99.58	44.5105	2.6232	Plg	SGS - 88	69.77
89	3.470	0.886	30.42	53.61	7.020	0.089	0.152	0.014	1.704	0.032	0.000	0.605	0.045	0.011	98.05	44.9515	3.1337	Mica	SGS - 89	83.99
90	11.42	0.011	19.84	69.06	0.107	0.080	0.007	0.000	0.088	0.033	0.000	0.120	0.000	0.012	100.78	46.3975	3.2955	Plg	SGS - 90	BelowLOD
91	1.467	0.060	15.12	54.76	10.30	0.034	0.031	0.000	0.230	0.034	0.000	0.197	0.000	0.158	82.36	46.7287	2.9645	Mica	SGS - 91	BelowLOD
92	0.457	1.767	18.79	59.18	4.080	0.129	0.352	0.025	4.450	0.050	0.000	0.059	0.110	0.061	89.45	47.6665	3.3187	Clay	SGS - 92	82.19
93	0.254	2.194	15.26	41.98	6.490	0.131	0.683	0.074	6.950	0.042	0.012	0.171	0.297	0.009	74.41	49.929	3.2987	Clay	~~SGS - 93~~	~~49.67~~
94	0.107	10.29	16.33	28.89	0.108	0.149	1.208	0.365	27.85	0.013	0.003	0.134	0.150	0.009	85.53	51.2217	3.006	Chl	SGS - 94	171.97
95	1.985	1.065	19.02	59.75	4.620	0.083	0.242	0.000	2.803	0.042	0.005	0.217	0.024	0.023	89.86	50.9217	3.511	Clay	~~SGS - 95~~	~~46.08~~
96	1.312	1.588	16.66	69.86	3.830	0.096	0.432	0.001	4.380	0.055	0.000	0.343	0.096	0.020	98.63	50.4275	4.0532	Clay	~~SGS - 96~~	~~56.47~~
97	10.21	0.494	24.44	62.10	1.504	0.381	0.013	0.013	0.236	0.035	0.000	0.141	0.051	0.018	99.61	49.601	4.3205	Ksp	SGS - 97	43.23
98	5.370	0.000	18.82	66.84	9.610	0.021	0.003	0.000	0.065	0.070	0.006	0.235	0.000	0.004	101.05	48.5307	5.2987	Ksp	SGS - 98	BelowLOD
99	0.337	2.612	20.71	49.54	4.580	0.310	0.627	0.121	9.760	0.040	0.000	0.314	0.132	0.021	89.04	50.6655	5.11	Clay	SGS - 99	76.31
100	0.724	1.198	26.10	57.82	5.660	0.067	0.211	0.021	1.986	0.041	0.004	0.234	0.087	0.011	94.12	49.9207	5.3477	Clay	SGS - 100	27.11
101	11.40	0.011	19.34	68.14	0.065	0.136	0.016	0.000	0.120	0.018	0.012	0.000	0.000	0.005	99.26	48.6147	6.2305	Plg	SGS - 101	56.44
102	0.333	0.000	18.41	65.35	16.14	0.000	0.000	0.000	0.244	0.059	0.000	0.137	0.000	0.003	100.66	48.2877	6.4202	Ksp	SGS - 102	24.66
103	0.068	7.040	16.19	34.34	9.000	0.007	3.160	0.291	23.24	0.064	0.000	0.175	0.558	0.017	93.91	44.9312	6.7227	Mica	SGS - 103	182.10
104	0.050	6.630	14.60	23.58	0.081	0.700	1.736	0.205	36.12	0.007	0.000	0.113	0.276	0.011	83.99	47.1782	6.9247	Chl	SGS - 104	121.30

MW-8V-81-84
51A

Pt#	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	F	Cl	Total	X(mm)	Y(mm)	Label		
105	0.203	1.224	30.83	45.89	5.420	0.074	1.920	0.028	2.164	0.022	0.000	0.336	0.045	0.020	88.15	15.818	16.7475	Clay	SGS - 105	188.91
106	0.197	1.777	28.94	49.10	4.840	0.037	0.839	0.000	5.310	0.024	0.000	0.151	0.067	0.018	91.27	14.549	16.723	Clay	SGS - 106	962.91
107	0.168	1.810	27.66	49.19	3.510	0.142	1.105	0.049	5.420	0.021	0.000	0.140	0.108	0.041	89.30	12.8115	17.1267	Clay	SGS - 107	296.75
108	0.189	1.447	33.22	49.45	3.700	0.154	0.788	0.032	3.110	0.019	0.000	0.195	0.184	0.017	92.42	12.7367	17.6437	mica	SGS - 108	483.19
109	0.305	1.431	33.46	50.14	4.810	0.084	0.639	0.006	2.832	0.048	0.005	0.147	0.124	0.027	93.99	13.1662	17.9237	mica	SGS - 109	383.11
110	0.200	1.384	31.16	48.00	4.290	0.059	0.979	0.021	3.110	0.034	0.000	0.092	0.038	0.014	89.37	12.91	18.1465	mica	SGS - 110	398.83
111	0.205	1.341	29.42	52.73	5.170	0.040	0.774	0.000	2.680	0.041	0.000	0.196	0.089	0.012	92.66	12.1065	18.591	mica	SGS - 111	191.89
112	0.208	1.299	32.63	49.37	3.900	0.053	0.767	0.016	3.050	0.019	0.000	0.103	0.153	0.022	91.52	12.265	19.1182	mica	SGS - 112	661.88
113	0.199	0.947	25.01	60.56	3.360	0.085	0.422	0.000	2.410	0.058	0.000	0.104	0.076	0.015	93.21	13.93	18.7657	Clay	SGS - 113	385.92
114	0.259	1.376	31.84	46.59	5.360	0.045	0.797	0.015	3.280	0.040	0.008	0.092	0.103	0.032	89.78	15.0352	18.7222	Clay	SGS - 114	800.52
115	0.182	1.270	28.22	52.44	4.900	0.044	3.260	0.000	2.738	0.019	0.000	0.076	0.167	0.011	93.25	16.0785	18.1607	Clay	SGS - 115	237.35
116	0.192	1.311	32.32	48.94	4.050	0.060	1.351	0.010	3.130	0.015	0.000	0.000	0.055	0.010	91.41	17.2395	18.6622	mica	SGS - 116	507.19
117	0.004	0.000	0.019	100.32	0.000	0.000	0.008	0.022	0.050	0.065	0.021	0.000	0.000	0.016	100.52	17.624	18.0712	Qtz	SGS - 117	BelowLOD
118	0.166	1.359	23.98	60.79	5.050	0.025	2.189	0.027	3.380	0.018	0.000	0.228	0.046	0.016	97.25	19.0727	17.9682	Clay	SGS - 118	191.39
119	0.377	1.741	32.34	48.44	5.530	0.112	0.523	0.011	4.340	0.014	0.000	0.292	0.000	0.015	93.73	20.16	18.0387	Clay	SGS - 119	438.21
120	0.280	1.538	33.19	51.61	4.200	0.087	0.893	0.010	3.410	0.021	0.009	0.152	0.030	0.035	95.44	20.292	17.5472	Clay	SGS - 120	416.09
121	0.768	1.620	20.58	60.89	4.390	0.031	1.273	0.016	4.900	0.038	0.000	0.205	0.000	0.046	94.74	21.899	18.042	Clay	SGS - 121	82.35
122	0.215	1.341	32.27	46.48	5.990	0.112	0.636	0.013	2.854	0.031	0.000	0.222	0.045	0.028	90.21	22.3877	18.7637	Clay	SGS - 122	647.20
123	0.315	1.383	31.81	45.40	6.480	0.034	0.290	0.020	3.060	0.018	0.000	0.049	0.093	0.020	88.92	23.275	19.355	Clay	SGS - 123	403.25
124	0.179	1.458	25.33	46.07	4.500	0.077	0.781	0.054	4.360	0.054	0.002	0.188	0.151	0.083	83.20	23.8415	19.7992	Clay	SGS - 124	223.75
125	0.444	1.459	32.30	46.65	3.940	0.076	0.595	0.000	2.731	0.023	0.006	0.157	0.056	0.003	88.41	23.6522	20.4757	Clay	SGS - 125	597.66
126	0.160	0.982	26.41	57.21	4.490	0.062	0.633	0.009	2.288	0.027	0.000	0.000	0.100	0.010	92.35	23.6735	21.837	Clay	~~SGS - 126~~	~~362.48~~
127	0.270	1.286	31.83	54.30	2.802	0.165	0.858	0.018	3.420	0.023	0.022	0.011	0.106	0.030	95.09	23.3277	22.1232	Clay	SGS - 127	805.51
128	0.215	1.066	29.64	50.74	3.010	0.154	1.441	0.017	3.110	0.026	0.000	0.168	0.121	0.007	89.67	21.9165	21.6882	Clay	SGS - 128	616.56
129	0.365	2.434	31.04	44.87	6.590	0.030	0.599	0.024	4.720	0.036	0.000	0.395	0.083	0.016	91.17	20.826	21.448	Clay	SGS - 129	546.82
130	0.208	1.355	32.00	48.15	4.100	0.035	0.643	0.015	3.100	0.041	0.000	0.043	0.000	0.026	89.71	20.8265	20.6582	mica	SGS - 130	450.84
131	0.175	1.274	29.87	50.87	5.070	0.032	0.511	0.016	3.270	0.052	0.000	0.080	0.040	0.021	91.25	19.74	20.8437	Clay	SGS - 131	127.42
132	0.180	1.705	27.01	44.43	5.050	0.067	0.793	0.020	4.280	0.042	0.000	0.062	0.009	0.032	83.67	19.0707	22.7912	Clay	SGS - 132	275.07
133	0.270	1.385	28.56	41.44	4.860	0.037	0.554	0.024	3.190	0.026	0.005	0.118	0.072	0.044	80.55	17.5785	22.8632	Clay	SGS - 133	404.98
134	0.377	1.976	32.32	43.46	3.350	0.087	1.265	0.020	4.170	0.013	0.000	0.026	0.056	0.026	87.12	17.4277	23.406	Clay	SGS - 134	1117.32
135	0.311	1.397	31.94	46.44	6.410	0.018	0.669	0.024	2.412	0.033	0.007	0.338	0.101	0.014	90.07	16.7417	23.0512	mica	SGS - 135	321.87
136	0.309	1.410	32.98	49.11	5.000	0.085	0.783	0.001	2.799	0.010	0.000	0.104	0.077	0.002	92.64	13.7135	22.855	Clay	SGS - 136	680.90
137	0.317	1.385	30.78	43.65	2.809	0.118	0.628	0.000	3.830	0.023	0.000	0.139	0.219	0.015	83.82	13.206	22.6147	Clay	SGS - 137	989.71
138	0.388	1.308	17.75	68.52	3.990	0.008	0.564	0.016	3.490	0.048	0.000	0.135	0.043	0.028	96.26	12.6137	23.3097	Clay	SGS - 138	66.42
139	0.212	1.775	26.28	56.89	5.690	0.017	0.441	0.012	3.880	0.047	0.000	0.134	0.075	0.008	95.42	12.4737	22.792	Clay	SGS - 139	126.64
140	0.312	1.556	33.34	47.24	3.520	0.040	0.766	0.001	3.290	0.027	0.000	0.273	0.050	0.005	90.39	12.042	24.6547	mica	SGS - 140	771.79
141	0.244	1.148	28.10	43.58	3.530	0.076	0.575	0.011	4.020	0.011	0.003	0.103	0.078	0.089	81.53	8.9262	24.7342	mica	SGS - 141	583.08
142	2.920	2.322	14.14	67.96	7.240	5.160	0.133	0.028	0.143	0.080	0.000	0.000	0.000	0.010	100.13	8.988	24.9707	Ksp?	SGS - 142	513.39
143	0.227	1.875	30.70	47.72	5.910	0.070	1.023	0.000	3.590	0.020	0.005	0.056	0.106	0.015	91.27	10.0585	25.715	Clay	SGS - 143	172.30
144	0.182	1.205	28.73	47.31	4.040	0.038	0.410	0.000	2.522	0.046	0.001	0.285	0.070	0.061	84.85	8.1532	25.7882	mica	SGS - 144	390.49
145	0.375	1.633	31.48	48.41	4.880	0.064	1.314	0.005	3.880	0.010	0.015	0.107	0.077	0.014	92.23	7.0227	25.6327	mica	SGS - 145	406.46
146	0.392	1.578	31.95	46.75	5.550	0.036	0.632	0.014	2.944	0.041	0.000	0.092	0.102	0.009	90.05	5.9962	26.5387	Clay	SGS - 146	335.09
147	1.394	1.830	20.24	47.49	3.750	0.605	0.593	0.065	4.620	0.050	0.000	0.170	0.065	0.074	80.90	8.0952	28.0817	Clay	SGS - 147	120.40
148	0.057	0.032	28.78	0.000	0.029	5.090	0.025	0.012	0.381	0.000	0.000	6.170	0.042	0.022	40.61	9.9267	28.0792	phos (see	~~SGS - 148~~	~~295.75~~
149	0.421	1.476	30.39	43.83	4.960	0.041	0.895	0.014	3.200	0.021	0.000	0.180	0.048	0.012	85.47	12.445	28.2257	Clay	SGS - 149	523.56
150	0.156	1.557	26.13	45.81	4.500	0.129	0.834	0.003	4.220	0.009	0.000	0.373	0.022	0.035	83.77	15.171	28.5405	Clay	SGS - 150	295.11
151	0.279	1.350	32.84	46.67	4.630	0.051	0.671	0.014	3.420	0.031	0.000	0.148	0.106	0.036	90.18	16.9375	29.2907	Clay	SGS - 151	532.15
152	0.264	1.584	30.73	44.78	6.010	0.027	0.990	0.027	3.700	0.026	0.000	0.078	0.041	0.030	88.26	20.4595	29.2615	Clay	SGS - 152	379.44
153	0.161	1.116	25.34	58.17	4.400	0.034	0.222	0.030	2.313	0.056	0.000	0.026	0.165	0.018	91.97	21.9317	29.7845	Clay	SGS - 153	184.63
154	0.383	1.540	28.93	45.51	3.790	0.081	1.428	0.016	3.630	0.030	0.005	0.041	0.027	0.021	85.41	20.1695	29.8247	mica	SGS - 154	614.58
155	0.185	1.171	29.61	45.50	5.260	0.040	0.155	0.031	2.250	0.027	0.030	0.057	0.068	0.013	84.36	19.3215	30.8365	Clay	SGS - 155	416.46
156	0.364	1.611	32.60	49.61	6.500	0.016	0.766	0.000	2.920	0.040	0.003	0.249	0.095	0.016	94.75	18.7162	31.2865	Clay	SGS - 156	240.69

MW-8V-155-160
71A

Pt#	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	F	Cl	Total	X(mm)	Y(mm)	Label		
157	11.57	0.001	18.74	66.79	0.074	0.030	0.012	0.000	0.156	0.023	0.000	0.000	0.000	0.005	97.40	66.2447	53.5997	Plg	SGS - 157	BelowLOD
158	1.310	0.988	15.79	61.64	4.820	0.035	0.202	0.043	3.310	0.062	0.000	0.000	0.051	0.032	88.25	65.0062	54.1452	Clay	SGS - 158	55.21
159	0.002	0.000	0.039	97.99	0.005	0.001	0.013	0.000	0.055	0.088	0.000	0.000	0.004	0.005	98.20	64.6802	54.8852	Qtz	SGS - 159	BelowLOD
160	0.280	2.710	21.17	41.08	5.060	0.182	0.720	0.106	10.38	0.029	0.003	0.000	0.033	0.005	81.74	62.7795	54.9617	Clay	SGS - 160	67.96
161	0.261	6.560	13.72	24.32	0.040	1.869	1.153	0.395	36.03	0.011	0.000	0.057	0.233	0.021	84.57	62.8757	54.8002	Chl	SGS - 161	144.09
162	0.432	1.572	20.00	49.38	5.530	0.213	1.101	0.044	5.360	0.043	0.000	0.219	0.087	0.039	83.97	64.8097	55.6495	Clay	SGS - 162	74.24
163	0.783	0.008	17.59	63.72	15.71	0.110	0.000	0.003	0.123	0.050	0.000	0.257	0.000	0.010	98.36	65.526	54.7977	Ksp	SGS - 163	BelowLOD
164	11.80	0.000	19.24	68.94	0.074	0.261	0.000	0.005	0.215	0.028	0.000	0.078	0.000	0.000	100.63	66.987	54.9385	Plg	SGS - 164	34.48
165	10.17	0.030	20.93	65.99	1.594	0.387	0.000	0.009	0.258	0.055	0.000	0.000	0.035	0.010	99.44	65.2382	56.6522	Plg	SGS - 165	5.63
166	12.08	0.006	18.92	67.25	0.059	0.197	0.000	0.001	0.116	0.042	0.000	0.000	0.000	0.004	98.68	64.3047	56.7095	Plg	SGS - 166	BelowLOD
167	0.019	0.000	0.025	98.12	0.011	0.015	0.000	0.011	0.095	0.069	0.000	0.084	0.003	0.000	98.45	63.1475	56.6817	Qtz	SGS - 167	BelowLOD
168	0.225	1.618	27.23	48.99	10.87	0.000	1.408	0.075	5.310	0.041	0.000	0.366	0.189	0.008	96.25	63.367	57.534	Mica	SGS - 168	38.27
169	1.073	0.006	17.19	66.46	15.57	0.024	0.000	0.002	0.124	0.091	0.000	0.215	0.000	0.000	100.75	63.0725	57.8665	Ksp	SGS - 169	55.35
170	0.350	2.335	17.62	54.17	4.590	1.063	0.639	0.108	10.52	0.045	0.005	0.158	0.120	0.016	91.69	65.677	58.5567	Clay	~~SGS - 170~~	~~65.69~~
171	1.866	0.009	17.58	66.13	14.21	0.006	0.039	0.021	0.196	0.065	0.010	0.000	0.000	0.008	100.14	65.601	58.7627	Ksp	SGS - 171	BelowLOD
172	0.020	16.11	18.86	27.35	0.000	0.021	0.018	0.510	23.28	0.028	0.002	0.029	0.064	0.009	86.27	65.878	59.1665	Chl	SGS - 172	154.12
173	0.508	1.574	25.77	48.88	9.010	0.014	0.496	0.003	3.510	0.049	0.016	0.164	0.048	0.030	90.05	67.1167	59.196	Mica	SGS - 173	99.18
174	0.633	2.179	19.20	57.47	4.640	0.136	0.171	0.074	8.430	0.048	0.000	0.183	0.090	0.006	93.22	67.837	59.905	Clay	SGS - 174	58.97
175	0.177	2.282	18.37	49.41	4.570	0.251	1.134	0.119	9.880	0.032	0.000	0.256	0.071	0.053	86.57	67.377	60.182	Clay	SGS - 175	61.86
176	0.000	0.021	0.266	101.77	0.078	0.002	0.017	0.019	0.277	0.078	0.004	0.000	0.041	0.000	102.56	67.3987	60.4707	Mica	SGS - 176	BelowLOD
177	11.74	0.001	19.02	69.38	0.057	0.157	0.000	0.000	0.122	0.032	0.000	0.015	0.000	0.007	100.53	66.6775	61.1725	Plg	SGS - 177	BelowLOD
178	11.69	0.075	17.84	67.68	0.046	0.054	0.020	0.009	0.497	0.042	0.000	0.000	0.000	0.002	97.95	66.4655	61.2912	Plg	SGS - 178	BelowLOD
179	11.70	0.000	18.90	66.53	0.028	0.090	0.000	0.011	0.124	0.022	0.000	0.000	0.000	0.008	97.41	65.0525	61.3612	Plg	SGS - 179	BelowLOD
180	0.163	0.799	28.57	44.75	10.16	0.026	0.335	0.003	1.510	0.019	0.000	0.038	0.014	0.024	86.41	64.3702	61.4717	Ksp	SGS - 180	16.91
181	2.010	1.705	17.03	56.67	4.270	0.048	0.418	0.013	6.430	0.061	0.001	0.171	0.001	0.019	88.84	63.6732	61.2835	Clay	~~SGS - 181~~	~~71.31~~
182	0.477	1.777	22.13	48.80	6.590	0.096	0.462	0.046	5.790	0.042	0.025	0.195	0.040	0.024	86.46	62.8615	61.2137	Clay	SGS - 182	55.09
183	0.580	0.971	11.26	66.07	3.440	0.298	1.062	0.047	4.780	0.069	0.000	0.109	0.142	0.010	88.76	62.1475	61.4557	Clay	SGS - 183	44.62
184	0.797	0.000	18.28	63.73	15.70	0.000	0.000	0.006	0.089	0.042	0.008	0.517	0.000	0.011	99.18	62.6165	62.6777	Ksp	SGS - 184	BelowLOD
185	1.891	1.643	16.94	59.93	3.770	0.101	0.538	0.064	7.790	0.072	0.000	0.000	0.118	0.013	92.81	62.481	62.8897	Clay	~~SGS - 185~~	~~56.44~~
186	0.123	8.520	17.35	34.75	7.480	0.209	2.658	0.260	21.90	0.034	0.007	0.319	0.315	0.035	93.81	60.821	62.6327	Clay	SGS - 186	114.58
187	0.681	1.730	22.59	50.12	6.330	0.212	0.481	0.047	5.160	0.050	0.007	0.125	0.099	0.026	87.62	60.5155	62.3867	Clay	SGS - 187	95.19
188	0.112	1.728	21.13	49.15	7.770	0.252	0.597	0.038	5.890	0.051	0.000	0.282	0.050	0.005	87.03	61.0345	63.6612	Clay	SGS - 188	48.67
189	0.314	1.721	15.95	56.69	5.250	0.085	0.677	0.041	6.210	0.079	0.000	0.124	0.091	0.002	87.20	59.6802	63.6017	Clay	~~SGS - 189~~	~~45.57~~
190	0.448	1.661	22.49	50.60	7.470	0.192	0.379	0.055	5.310	0.076	0.000	0.000	0.085	0.016	88.74	59.3327	62.661	Clay	SGS - 190	75.18
191	0.210	2.035	12.89	58.12	3.720	0.116	0.182	0.037	5.930	0.041	0.004	0.049	0.067	0.045	83.42	58.42	62.5417	Clay	~~SGS - 191~~	~~37.29~~
192	1.505	0.006	18.34	65.29	14.99	0.010	0.036	0.022	0.100	0.102	0.000	0.088	0.000	0.000	100.49	57.7227	62.8632	Ksp	SGS - 192	BelowLOD
193	1.338	0.691	14.07	60.77	4.380	0.064	0.244	0.033	1.809	0.047	0.011	0.247	0.074	0.032	83.77	57.4642	61.6145	Clay	SGS - 193	34.30
194	0.229	1.319	15.21	59.37	3.310	1.540	0.701	0.088	3.260	0.049	0.003	0.410	0.014	0.025	85.52	57.187	61.3395	Clay	SGS - 194	37.80
195	10.26	0.001	20.06	64.75	0.095	0.645	0.024	0.034	0.094	0.051	0.013	0.145	0.000	0.000	96.16	56.4682	61.0287	Plg	SGS - 195	BelowLOD
196	0.295	0.617	28.18	43.94	9.440	0.006	0.215	0.010	2.584	0.086	0.012	0.037	0.280	0.040	85.62	56.9577	59.8062	Mica	SGS - 196	169.90
197	0.049	3.390	11.26	60.49	0.981	0.007	0.600	0.096	15.24	0.040	0.004	0.062	0.240	0.057	92.40	57.6507	60.1417	Clay	SGS - 197	24.20
198	11.46	0.000	19.40	66.14	0.029	0.153	0.000	0.001	0.147	0.049	0.001	0.016	0.000	0.012	97.40	58.41	59.9387	Plg	SGS - 198	BelowLOD
199	0.079	6.400	7.910	12.26	0.767	4.510	0.158	0.803	39.51	0.000	0.018	0.028	0.180	0.020	72.55	60.688	59.8017	?	SGS - 199	53.72
200	1.434	0.570	36.20	44.02	8.020	0.013	0.478	0.001	0.943	0.029	0.000	0.224	0.000	0.000	91.93	60.9517	60.8022	Mica	SGS - 200	17.10
201	0.362	2.566	21.41	48.80	6.320	0.080	0.461	0.060	8.640	0.049	0.015	0.139	0.065	0.016	88.95	61.3302	60.5845	Clay	SGS - 201	56.96
202	0.640	1.714	23.38	50.22	6.830	0.104	0.806	0.033	5.970	0.063	0.000	0.177	0.071	0.009	89.99	62.3867	60.3652	Clay	~~SGS - 202~~	~~359.03~~
203	0.580	1.380	16.38	59.67	4.710	0.107	0.358	0.067	4.640	0.057	0.000	0.010	0.047	0.054	88.03	64.1252	60.1795	Clay	SGS - 203	49.99
204	0.193	0.208	0.043	1.217	0.008	54.98	0.007	0.084	0.309	0.000	0.000	0.000	0.095	0.023	57.13	65.1305	59.631	Calcite	~~SGS - 204~~	~~BelowLOD~~
205	0.310	1.561	19.45	53.02	5.920	0.235	0.343	0.039	5.440	0.067	0.008	0.221	0.074	0.006	86.67	65.3487	59.536	Clay	SGS - 205	57.27
206	11.33	0.003	16.87	70.37	0.043	0.542	0.000	0.000	0.082	0.049	0.000	0.041	0.000	0.005	99.34	65.9347	59.3895	Plg	~~SGS - 206~~	~~BelowLOD~~
207	0.292	0.471	9.690	80.45	2.683	0.038	0.269	0.012	0.848	0.066	0.016	0.430	0.000	0.007	95.27	65.5955	60.5597	Clay	~~SGS - 207~~	~~13.48~~
208	1.805	0.875	16.57	58.15	5.600	0.048	0.862	0.032	2.855	0.068	0.000	0.269	0.068	0.024	87.20	63.052	59.5547	Clay	~~SGS - 208~~	~~38.29~~

MW-9H-40-50
91A

Pt#	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	F	Cl	Total	X(mm)	Y(mm)	Label		
209	0.505	0.682	31.66	46.21	9.690	0.032	0.534	0.028	4.070	0.043	0.000	0.228	0.071	0.013	93.73	38.1745	39.3045	Mica	SGS - 209	18.96
210	0.011	0.000	0.384	98.40	0.063	0.006	0.000	0.000	0.083	0.097	0.002	0.105	0.000	0.002	99.15	39.069	38.8105	Qtz	SGS - 210	I.S.
211	0.745	0.730	28.65	43.40	9.350	0.027	0.161	0.017	3.330	0.025	0.000	0.378	0.015	0.018	86.83	40.9077	38.6665	Mica	SGS - 211	22.84
212	0.334	1.401	25.75	44.00	10.52	0.047	0.521	0.016	4.040	0.048	0.000	0.103	0.097	0.024	86.85	41.4705	38.099	Mica	SGS - 212	71.11
213	7.000	0.557	20.23	63.60	2.568	0.226	0.255	0.024	1.934	0.057	0.000	0.000	0.066	0.013	96.50	41.7942	38.754	Clay	SGS - 213	70.34
214	0.189	2.983	20.44	52.30	4.770	0.082	0.507	0.038	10.15	0.027	0.000	0.005	0.035	0.018	91.53	43.3482	38.9105	Mica	SGS - 214	71.45
215	1.024	0.964	18.71	58.02	5.110	0.080	2.124	0.000	3.270	0.078	0.004	0.159	0.043	0.028	89.60	41.2497	40.7512	Clay	SGS - 215	38.94
216	3.600	0.348	30.23	52.06	3.910	0.059	0.029	0.013	0.866	0.017	0.000	0.124	0.058	0.011	91.31	40.5065	40.0522	Clay	SGS - 216	118.31
217	0.524	1.458	24.19	49.84	5.960	0.105	0.557	0.061	6.080	0.034	0.000	0.123	0.145	0.013	89.04	39.066	39.966	Clay	SGS - 217	70.24
218	11.44	0.068	18.36	68.97	0.499	0.248	0.052	0.026	0.233	0.034	0.002	0.140	0.000	0.012	100.07	36.0532	39.7695	Plg	SGS - 218	BelowLOD
219	11.59	0.009	18.18	70.18	0.117	0.100	0.038	0.006	0.093	0.043	0.009	0.077	0.000	0.006	100.45	34.2285	39.737	Plg	SGS - 219	5.25
220	0.493	1.430	29.26	47.35	9.670	0.005	0.443	0.000	2.266	0.062	0.000	0.628	0.053	0.011	91.65	32.9582	41.3745	Ksp	SGS - 220	67.51
221	1.293	0.945	30.39	46.15	8.640	0.002	0.352	0.028	1.644	0.040	0.000	0.432	0.026	0.011	89.94	34.2997	41.3105	Mica	SGS - 221	469.69
222	0.382	0.566	31.00	45.18	7.500	0.015	0.370	0.030	1.518	0.025	0.000	0.757	0.028	0.011	87.37	37.5025	41.1712	Mica	SGS - 222	24.33
223	11.77	0.004	19.26	68.11	0.051	0.136	0.000	0.028	0.084	0.033	0.021	0.010	0.000	0.015	99.52	38.3875	41.2062	Plg	SGS - 223	I.S.
224	11.58	0.044	20.42	67.80	0.372	0.153	0.000	0.025	0.152	0.038	0.000	0.086	0.000	0.009	100.68	38.7602	41.0047	Plg	SGS - 224	23.86
225	0.354	0.790	32.47	45.24	8.990	0.031	0.685	0.033	4.360	0.027	0.000	0.205	0.000	0.017	93.19	41.9127	41.5435	Mica	SGS - 225	172.56
226	11.41	0.000	18.74	70.23	0.029	0.035	0.006	0.019	0.113	0.041	0.000	0.000	0.000	0.004	100.63	42.8155	42.384	Plg	SGS - 226	I.S.
227	0.487	1.456	21.65	51.88	4.430	0.046	0.287	0.027	5.600	0.043	0.000	0.198	0.062	0.055	86.18	44.581	42.4962	Clay	SGS - 227	97.15
228	0.207	1.400	32.08	46.74	8.610	0.034	0.854	0.051	2.131	0.043	0.004	0.495	0.172	0.014	92.76	45.5102	42.5295	Mica	SGS - 228	46.38
229	0.062	1.020	14.90	58.12	4.230	0.068	0.945	0.000	2.305	0.065	0.005	0.119	0.065	0.034	81.90	45.1942	41.189	Clay	SGS - 229	62.61
230	0.651	1.441	17.92	68.75	5.240	0.048	0.422	0.009	3.150	0.063	0.000	0.099	0.038	0.032	97.83	46.006	41.6615	Clay	SGS - 230	33.38
231	0.208	5.750	19.39	31.10	0.715	0.198	2.015	0.201	21.69	0.016	0.000	0.104	0.192	0.060	81.54	49.849	45.504	Chl	SGS - 231	450.99
232	0.096	1.816	23.82	55.48	7.170	0.028	0.702	0.001	2.185	0.038	0.000	0.187	0.141	0.028	91.62	44.006	42.7422	Clay	SGS - 232	131.53
233	0.114	3.270	27.76	48.13	8.620	0.033	0.496	0.001	5.010	0.042	0.000	0.569	0.100	0.015	94.10	42.0415	44.756	Clay	SGS - 233	156.31
234	0.532	0.000	18.40	63.42	15.64	0.033	0.038	0.000	0.182	0.051	0.007	0.669	0.000	0.032	99.00	41.8377	44.7745	Ksp	SGS - 234	20.47
235	0.155	0.995	21.06	48.27	7.130	0.044	0.418	0.004	2.186	0.054	0.000	0.288	0.059	0.052	80.69	38.0325	43.6152	Clay	SGS - 235	71.46
236	0.153	1.363	15.30	64.17	4.020	0.049	0.475	0.006	5.030	0.076	0.000	0.066	0.083	0.031	90.78	33.5007	43.9842	Clay	SGS - 236	126.54
237	4.080	0.375	20.51	52.16	1.390	0.046	0.219	0.010	1.325	0.034	0.000	0.000	0.026	0.014	80.17	33.9775	42.8737	Clay	~~SGS - 237~~	~~75.76~~
238	1.834	0.530	13.78	62.54	1.606	0.074	0.277	0.000	2.872	0.028	0.011	0.134	0.072	0.044	83.77	44.1387	44.8152	Clay	~~SGS - 238~~	~~209.00~~
239	11.64	0.000	18.20	67.71	0.073	0.247	0.000	0.000	0.087	0.045	0.000	0.000	0.000	0.005	98.00	48.1155	43.7977	Plg	SGS - 239	BelowLOD
240	0.050	0.408	7.020	86.73	1.636	0.055	0.151	0.002	0.637	0.070	0.000	0.011	0.000	0.024	96.78	49.4862	47.4335	Clay	SGS - 240	24.49
241	10.91	0.072	20.56	68.52	0.955	0.298	0.033	0.000	0.329	0.019	0.000	0.000	0.000	0.009	101.70	48.3355	46.7457	Plg	SGS - 241	BelowLOD
242	0.255	1.277	29.00	47.65	4.810	0.107	0.800	0.005	3.600	0.029	0.000	0.129	0.104	0.021	87.74	40.0292	42.796	Clay	SGS - 242	403.59
243	0.123	1.758	19.75	45.17	5.970	0.101	0.750	0.014	5.810	0.048	0.000	0.247	0.095	0.015	79.81	38.6085	47.1492	Clay	SGS - 243	78.73
244	0.112	1.398	16.22	52.96	4.930	0.178	0.576	0.060	3.510	0.056	0.000	0.096	0.033	0.136	80.22	33.3792	44.6937	Clay	SGS - 244	173.66
245	2.812	0.266	18.85	65.49	1.147	0.050	0.159	0.000	1.203	0.041	0.009	0.000	0.065	0.045	90.09	28.078	44.3262	Clay	SGS - 245	282.01
246	11.20	0.021	19.80	69.87	0.210	0.291	0.000	0.011	0.192	0.044	0.000	0.000	0.000	0.019	101.65	27.3845	44.904	Plg	SGS - 246	BelowLOD
247	0.805	0.956	27.98	40.46	7.810	0.038	0.370	0.019	1.067	0.031	0.000	0.131	0.039	0.119	79.78	33.1072	45.4322	Mica	SGS - 247	34.05
248	0.177	6.310	20.35	29.59	0.077	0.149	1.513	0.088	28.82	0.002	0.000	0.000	0.157	0.011	87.17	32.3547	46.36	Chl	SGS - 248	397.65
249	10.58	0.017	18.67	68.59	0.142	0.088	0.055	0.005	0.599	0.017	0.005	0.000	0.000	0.040	98.80	41.4552	46.1217	Plg	SGS - 249	BelowLOD
250	0.465	0.000	18.19	64.44	15.93	0.000	0.000	0.018	0.084	0.066	0.000	0.273	0.000	0.010	99.47	42.2447	46.449	Ksp	SGS - 250	7.41
251	0.109	1.519	8.970	80.54	1.594	0.032	0.089	0.045	4.440	0.050	0.002	0.172	0.020	0.010	97.57	33.7112	48.5177	Clay	~~SGS - 251~~	~~94.57~~
252	10.57	0.000	18.17	68.20	0.014	0.563	0.041	0.001	0.071	0.030	0.015	0.000	0.000	0.014	97.69	29.2027	48.2722	Plg	SGS - 252	BelowLOD
253	11.74	0.007	19.82	68.01	0.047	0.000	0.018	0.000	0.460	0.032	0.000	0.000	0.000	0.003	100.14	27.0347	46.8942	Plg	~~SGS - 253~~	~~201.90~~
254	0.042	0.556	14.73	55.32	2.546	0.027	0.140	0.000	1.501	0.076	0.000	0.000	0.008	0.014	74.96	26.0465	46.73	Clay	SGS - 254	114.58
255	0.077	0.484	16.20	63.59	0.335	0.013	0.094	0.000	2.369	0.091	0.003	0.000	0.000	0.010	83.26	29.1742	48.8235	Mica	~~SGS - 255~~	~~139.47~~
256	0.217	1.237	33.07	49.36	10.02	0.010	1.565	0.024	1.961	0.046	0.000	0.314	0.063	0.000	97.86	26.6697	50.1662	Mica	SGS - 256	71.93
257	0.240	1.532	20.27	43.37	5.490	0.163	0.337	0.005	9.320	0.043	0.000	0.434	0.188	0.059	81.36	26.4557	49.5442	Clay	SGS - 257	65.03
258	0.045	0.498	30.86	56.53	1.277	0.031	0.341	0.000	2.223	0.013	0.000	0.000	0.026	0.028	91.85	33.2025	50.5515	Clay	~~SGS - 258~~	~~680.39~~

MW-12H-60-64
111A

Pt#	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	F	Cl	Total	X(mm)	Y(mm)	Label		
259	0.182	0.625	13.38	61.33	2.073	0.110	0.204	0.036	2.427	0.016	0.000	0.236	0.005	0.124	80.71	9.1287	52.4305	Clay	~~SGS - 259~~	~~59.53~~
260	0.004	0.000	0.044	100.62	0.006	0.000	0.010	0.000	0.140	0.056	0.014	0.000	0.000	0.001	100.89	9.0645	52.3007	Qtz	SGS - 260	46.15
261	0.497	1.010	25.14	54.07	7.010	0.124	0.878	0.057	2.815	0.048	0.000	0.093	0.201	0.016	91.87	8.4637	52.5047	Clay	SGS - 261	66.77
262	7.100	0.020	13.53	79.15	0.043	0.025	0.020	0.000	0.113	0.051	0.013	0.000	0.000	0.006	100.07	7.0682	53.0982	Plg+Qtz	~~SGS - 262~~	~~96.78~~
263	0.342	1.650	22.16	48.40	5.490	0.112	0.525	0.075	4.260	0.024	0.009	0.126	0.078	0.068	83.27	5.856	54.8652	Clay	SGS - 263	73.10
264	11.23	0.034	19.49	69.15	0.103	0.288	0.041	0.015	0.282	0.043	0.000	0.000	0.000	0.000	100.67	6.9347	54.098	Plg	SGS - 264	13.63
265	1.009	0.091	2.966	97.39	0.629	0.009	0.032	0.000	0.249	0.086	0.000	0.235	0.000	0.006	102.70	8.9705	53.1332	Qtz	SGS - 265	I.S.
266	0.508	2.157	23.57	50.30	5.390	0.197	0.613	0.198	9.940	0.043	0.022	0.260	0.059	0.002	93.24	10.4665	53.236	Clay	SGS - 266	79.55
267	0.407	1.967	15.18	67.44	3.390	0.153	0.285	0.112	7.540	0.063	0.011	0.271	0.124	0.013	96.90	12.2092	52.6142	Clay	~~SGS - 267~~	~~61.54~~
268	0.202	1.054	16.66	70.61	3.750	0.084	0.201	0.042	3.360	0.057	0.000	0.039	0.048	0.073	96.14	14.3185	52.1365	Clay	~~SGS - 268~~	~~64.18~~
269	11.49	0.015	19.35	69.89	0.139	0.099	0.000	0.000	0.134	0.041	0.005	0.000	0.000	0.014	101.18	14.8932	52.614	Plg	SGS - 269	BelowLOD
270	1.002	0.630	16.46	69.43	2.908	0.104	7.680	0.000	1.193	0.035	0.000	0.231	0.027	0.030	99.71	15.9212	54.0485	Clay	SGS - 270	45.12
271	1.030	2.234	24.34	45.16	5.690	0.145	2.300	0.047	7.590	0.047	0.000	0.259	0.089	0.024	88.90	12.353	54.1877	Clay	SGS - 271	79.36
272	0.114	1.048	12.00	78.15	2.508	0.098	0.329	0.040	2.112	0.064	0.019	0.053	0.087	0.005	96.59	11.9012	55.1127	Clay	~~SGS - 272~~	~~31.50~~
273	11.46	0.000	18.72	68.00	0.013	0.250	0.007	0.000	0.196	0.043	0.009	0.091	0.000	0.004	98.80	12.197	55.47	Plg	SGS - 273	BelowLOD
274	0.689	1.702	24.49	50.93	6.820	0.090	0.303	0.030	5.010	0.066	0.000	0.000	0.097	0.011	90.20	15.7262	56.968	Clay	SGS - 274	82.55
275	11.19	0.003	19.48	67.47	0.122	0.904	0.023	0.027	0.098	0.065	0.017	0.000	0.000	0.001	99.40	14.614	55.6195	Plg	SGS - 275	BelowLOD
276	0.302	1.736	18.06	36.75	3.780	1.428	0.833	0.005	5.190	0.024	0.000	0.231	0.004	0.182	68.48	15.6317	55.13	Clay	SGS - 276	80.81
277	0.560	1.625	21.59	57.81	4.110	0.149	0.441	0.068	5.660	0.032	0.001	0.037	0.020	0.048	92.12	16.1405	54.7192	Clay	SGS - 277	63.95
278	0.866	2.301	14.58	55.13	3.300	0.160	0.540	0.113	9.780	0.022	0.018	0.223	0.054	0.324	87.31	18.257	54.3105	Clay	~~SGS - 278~~	~~36.56~~
279	0.903	1.603	22.74	55.19	5.560	0.081	2.067	0.063	6.160	0.052	0.000	0.047	0.029	0.033	94.51	18.4097	55.6437	Clay	SGS - 279	78.12
280	0.177	1.005	18.87	53.22	5.060	0.091	0.963	0.002	3.230	0.033	0.000	0.237	0.041	0.044	82.93	18.897	56.3822	Clay	SGS - 280	42.26
281	0.326	2.004	26.53	47.16	7.380	0.156	0.919	0.062	5.940	0.049	0.005	0.173	0.061	0.045	90.78	16.5015	55.9367	Clay	SGS - 281	68.62
282	1.143	0.900	33.09	47.36	9.240	0.005	0.537	0.026	3.240	0.019	0.009	0.539	0.047	0.009	96.15	17.0562	57.2117	Mica	SGS - 282	21.92
283	0.856	0.994	31.36	48.45	9.890	0.005	0.530	0.000	3.980	0.033	0.018	0.259	0.014	0.010	96.39	17.048	57.6757	Mica	SGS - 283	18.57
284	0.904	0.866	31.76	44.20	7.530	0.596	0.671	0.008	1.222	0.020	0.000	0.635	0.035	0.058	88.48	16.3522	58.059	Mica	SGS - 284	23.70
285	0.211	1.456	11.88	67.92	2.555	0.322	0.330	0.118	8.270	0.058	0.000	0.011	0.064	0.002	93.17	14.7185	59.5	Clay	~~SGS - 285~~	~~51.07~~
286	0.652	0.010	18.76	64.65	15.35	0.015	0.005	0.000	0.141	0.024	0.000	0.469	0.000	0.003	100.07	13.9007	59.6835	Ksp	SGS - 286	I.S.
287	0.427	0.286	19.77	64.97	14.23	0.046	0.006	0.000	0.406	0.034	0.000	0.428	0.000	0.015	100.62	15.1917	60.119	Ksp	SGS - 287	BelowLOD
288	0.373	0.806	34.93	47.60	10.10	0.051	0.662	0.020	2.174	0.045	0.000	0.345	0.000	0.006	97.10	15.6262	60.1405	Mica	SGS - 288	13.04
289	0.512	0.000	17.69	65.27	15.76	0.009	0.000	0.046	0.099	0.033	0.000	1.429	0.000	0.000	100.84	16.519	60.0677	Ksp	SGS - 289	BelowLOD
290	0.084	6.150	13.57	25.11	0.131	0.368	2.384	0.324	36.06	0.015	0.000	0.067	0.191	0.036	84.40	17.3287	59.7245	Chl	SGS - 290	96.27
291	0.272	7.240	17.52	33.97	4.090	0.115	1.577	0.182	26.08	0.085	0.000	0.045	0.347	0.017	91.39	21.7602	58.5585	mica	SGS - 291	150.48
292	0.346	1.058	14.63	70.00	3.860	0.144	0.371	0.034	3.180	0.064	0.006	0.116	0.090	0.039	93.89	20.9692	59.7687	Clay	~~SGS - 292~~	~~76.41~~
293	11.27	0.014	19.92	68.93	0.187	0.517	0.003	0.008	0.135	0.023	0.000	0.000	0.000	0.011	101.01	19.261	61.3287	Plg	~~SGS - 293~~	~~50.46~~
294	11.61	0.006	19.32	68.81	0.051	0.006	0.023	0.003	0.113	0.030	0.019	0.000	0.000	0.007	99.99	18.3577	62.2777	Plg	SGS - 294	BelowLOD
295	0.965	1.195	33.21	47.55	9.600	0.000	0.769	0.004	1.467	0.021	0.000	0.493	0.053	0.001	95.30	18.481	62.4847	Mica	SGS - 295	22.59
296	0.257	1.665	17.98	54.95	4.440	0.091	1.292	0.036	4.050	0.050	0.000	0.157	0.054	0.085	85.08	16.0717	63.1757	Clay	SGS - 296	52.56
297	0.205	1.570	17.49	62.77	3.820	0.078	0.485	0.024	5.360	0.048	0.000	0.172	0.049	0.044	92.07	12.4415	64.2857	Clay	SGS - 297	78.41
298	11.46	0.006	19.86	69.20	0.138	0.208	0.000	0.006	0.172	0.019	0.000	0.000	0.000	0.006	101.08	11.7882	65.407	Plg	SGS - 298	BelowLOD
299	0.773	1.382	14.03	64.46	3.290	0.233	0.718	0.150	6.520	0.056	0.006	0.121	0.023	0.036	91.78	10.903	65.2717	Clay	~~SGS - 299~~	~~52.83~~
300	10.92	0.022	19.69	68.10	0.280	0.973	0.000	0.000	0.113	0.033	0.006	0.112	0.000	0.002	100.26	10.8165	65.3452	Plg	SGS - 300	BelowLOD
301	0.757	1.282	17.76	68.35	4.610	0.082	0.303	0.033	3.020	0.072	0.018	0.074	0.129	0.013	96.44	9.4467	65.1282	Clay	SGS - 301	53.05
302	0.056	1.222	10.23	81.67	2.820	0.017	0.283	0.005	3.880	0.064	0.000	0.000	0.003	0.008	100.25	7.629	65.8647	Clay	SGS - 302	7.53
303	0.125	11.19	19.51	26.02	0.083	0.118	0.086	0.329	27.63	0.014	0.000	0.000	0.059	0.016	85.14	6.9462	66.269	Chl	SGS - 303	108.80
304	0.088	0.976	10.25	79.40	2.047	0.105	0.409	0.023	3.690	0.062	0.023	0.116	0.107	0.012	97.27	6.1335	66.705	Clay	~~SGS - 304~~	~~29.50~~
305	0.417	0.728	19.64	68.80	5.300	0.057	0.363	0.000	2.165	0.069	0.000	0.343	0.026	0.022	97.91	5.5315	66.5932	Clay	SGS - 305	94.82
306	0.111	6.140	16.55	29.17	4.940	2.794	2.345	0.283	25.14	0.026	0.000	0.075	0.339	0.032	87.81	2.5127	65.5677	Mica	SGS - 306	71.39
307	0.924	1.695	17.37	62.92	3.020	0.168	0.221	0.047	6.040	0.049	0.000	0.074	0.061	0.020	92.59	2.0432	65.1627	Clay	SGS - 307	58.55
308	0.306	1.368	29.87	48.03	10.03	0.004	0.940	0.015	2.613	0.059	0.006	0.031	0.065	0.016	93.32	2.722	63.4155	mica	SGS - 308	41.42
309	0.239	2.112	22.56	48.80	5.370	0.179	0.552	0.073	9.260	0.044	0.000	0.149	0.080	0.046	89.41	2.4332	63.4265	Clay	SGS - 309	94.04

Pt#	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	P2O5	F	Cl	Total	X(mm)	Y(mm)	Label
80	0.000	0.000	0.012	0.591	0.014	54.39	0.000	0.008	0.142	0.005	0.000	0.011	41.49	3.580	0.051	98.78	39.7115	4.5622	Apat
148	0.057	0.031	26.26	0.000	0.029	5.230	0.025	0.012	0.386	0.000	0.000	6.190	25.98	0.046	0.023	64.25	9.9267	28.0792	phos

Sanadine (Hohenfels, Germany)

	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	F	Cl	Total
	2.975	0.000	18.63	65.89	12.11	0.000	0.000	0.017	0.183	0.035	0.000	1.199	0.000	0.000	101.04
	2.981	0.000	18.98	65.24	12.28	0.006	0.000	0.024	0.129	0.031	0.000	1.446	0.000	0.000	101.11
	3.010	0.000	18.97	64.86	12.38	0.000	0.000	0.001	0.150	0.022	0.000	1.311	0.000	0.000	100.69
Average	**2.989**	**0.000**	**18.86**	**65.33**	**12.26**	**0.002**	**0.000**	**0.014**	**0.154**	**0.029**	**0.000**	**1.319**	**0.000**	**0.000**	
Recomme	3.010		18.76	64.67	12.11	0.010			0.180			1.090			

Bytownite (gabbro sill; Crystal Bay, Minnesota); Borg and Heard (Contrib. Mineral. Petrol. 1969).

	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	F	Cl	Total
	2.746	0.153	31.76	48.41	0.073	15.23	0.078	0.008	0.453	0.024	0.000	0.065	0.000	0.004	98.99
	2.710	0.151	31.77	48.92	0.074	15.14	0.077	0.003	0.444	0.028	0.000	0.000	0.000	0.000	99.32
Average	**2.728**	**0.152**	**31.77**	**48.67**	**0.073**	**15.19**	**0.078**	**0.006**	**0.448**	**0.026**	**0.000**	**0.032**	**0.000**	**0.002**	
Recomme	2.670	0.130	32.01	49.10	0.080	15.50			0.410						

Mica Sheet (In-house)

	Na2O	MgO	Al2O3	SiO2	K2O	CaO	TiO2	MnO	FeO	Rb2O	Cs2O	BaO	F	Cl	Total
	0.701	0.749	33.99	45.58	10.18	0.000	0.384	0.013	1.948	0.029	0.000	0.048	0.144	0.002	93.70
	0.693	0.740	33.90	45.66	10.18	0.000	0.326	0.003	1.847	0.050	0.000	0.124	0.158	0.001	93.61
	0.724	0.761	33.80	45.56	10.03	0.000	0.354	0.004	1.818	0.039	0.000	0.000	0.120	0.007	93.16
Average	**0.706**	**0.750**	**33.90**	**45.60**	**10.13**	**0.000**	**0.355**	**0.007**	**1.871**	**0.039**	**0.000**	**0.057**	**0.141**	**0.003**	
Recomme	0.710	0.760	34.12	45.89	10.21		0.380		1.950						