2022 SEMI-ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ALABAMA POWER COMPANY
PLANT BARRY
GYPSUM POND

July 31, 2022

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering

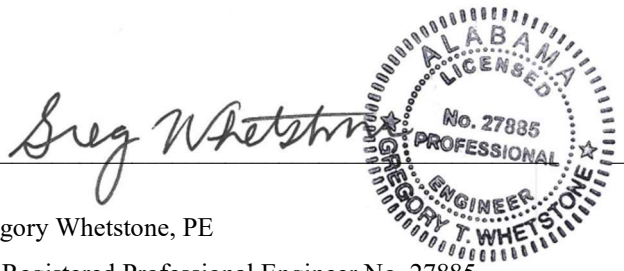
CERTIFICATION STATEMENT

This *Semi-Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Barry 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) and ADEM Admin. Code Ch. 335-13-15 under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.

7/31/2022

Austin C. Patton, P.G. Date

AL Registered Professional Geologist



7/31/2022

Gregory Whetstone, PE Date

AL Registered Professional Engineer No. 27885

EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2022 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the first 2022 semi-annual assessment groundwater monitoring activities at the Plant Barry Gypsum Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry 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 (SSIs) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018. Statistically significant levels (SSLs) of Appendix IV parameters have not been identified during assessment monitoring and therefore, the Site has remained in assessment monitoring.

Statistically significant levels (SSL) of Appendix IV parameters were not identified during the first 2022 semi-annual monitoring period, and in accordance with § 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), APC will continue semi-annual assessment monitoring.

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

- Submitted the 2021 Annual Groundwater Monitoring and Corrective Action Report to the Department on January 31, 2022.
- Completed the first 2022 semi-annual assessment groundwater monitoring event between May 23, 2022, and June 1, 2022.

  The CCR Unit concluded the monitoring period in Assessment Monitoring. The following next steps will be taken for the CCR Unit:

- Continue semi-annual assessment monitoring in the fall of 2022 and submit Annual Groundwater Monitoring and Corrective Action Report of 2022 to the Department by January 31, 2023.

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

Executive Summary Table.
Monitoring Period Summary
Plant Barry - Gypsum Pond

Assessment Monitoring Inintiated: January 15, 2018
Monitoring Period: January 1 - July 31, 2022
Beginning Status: Assessment
Ending Status: Assessment

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	BY-GSA-MW-5, BY-GSA-MW-6
Calcium	BY-GSA-MW-5, BY-GSA-MW-6
Chloride	BY-GSA-MW-5
Fluoride	None
pH	None
Sulfate	BY-GSA-MW-5
TDS	BY-GSA-MW-5, BY-GSA-MW-6

Appendix IV SSLs

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

Site Remains in Assessment Monitoring (§ 257.95(d) & Alabama Admin. Code r. 335-13-15-.06(6)(d))

Groundwater Remedy

Selected During Period: Yes
Selection Date: October 2021
Initiated During Period: No
Ongoing During Period: No

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ABBREVATIONS

ADEM	Alabama Department of Environmental Management
AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	American Society for Testing and Materials
BGS	below ground surface
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
COC	chain of custody
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
GWPS	Groundwater Protection Standard(s)
LCL	Lower Confidence Limit
m	meter
mg/L	milligram per liter
MSL	mean sea level
MW-	denotes “Monitoring Well”
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SM	Standard Method(s)
SSI	statistically significant increase
SSL	statistically significant level
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	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) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, 2022 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the first 2022 semi-annual assessment groundwater monitoring activities at the Plant Barry Gypsum Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry 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).

2.0 MONITORING PROGRAM STATUS

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 were identified at the Plant Barry Gypsum Pond during the first sampling event conducted in 2022 and the site remained in assessment monitoring. SSLs of Appendix IV constituents were not observed over the GWPS, in accordance with § 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), APC will continue assessment monitoring and will not implement assessment of corrective measures under § 257.96 and ADEM Admin. Code r. 335-13-15-.06(7).

3.0 SITE LOCATION AND DESCRIPTION

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

The Gypsum Pond is located south-southwest of the main plant, between Sisters Creek to the north, Cold Creek to the south, and the plant's discharge canal to the east. **Figure 1**, **Site Location Map**, depicts the location of the Plant and Gypsum Pond with respect to the surrounding area. The Gypsum Pond was constructed between 2007 and 2010 and consists of a 21.3-acre gypsum storage cell and a 10.4-acre sedimentation pond.

3.1 PHYSICAL SETTING

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is composed of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Land surface elevations near the Gypsum Pond slope from west to east and range from approximately 30 feet above mean sea level (MSL) to 10 feet MSL, respectively. **Figure 2**, **Site Topographic Map**, provides the topography of the site.

3.2 SITE GEOLOGY AND HYDROGEOLOGY

The geology of the site is characterized by sedimentary deposits ranging in age from Tertiary to Quaternary. Sedimentary alluvial and terrace deposits of the Quaternary Period overlie largely unconsolidated Tertiary deposits in and adjacent to the flood plains of the Mobile River. At the site, Holocene age alluvial and low terrace deposits overlie undifferentiated Miocene Series sediments. Miocene Series sediments were primarily deposited in a regressive marine depositional environment. The Miocene Series is composed of

fine to very coarse-grained sand with interbedded sandy clays, silts, and shell fragments (Walter and Kidd, 1979). Siliciclastic sediments of the Miocene Series are often micaceous and pyritic, and contain wood fragments, shell debris, and heavy minerals (Chandler et al., 1985). Alluvial, low terrace, and coastal deposits reflect estuarine, deltaic, lagoonal, and shoreface deposition in lowland areas from late Pleistocene to Holocene time. These deposits consist of fine to coarse sand, which can be rich in heavy detrital minerals (Hsu, 1960), silt, sandy clay, clay, and shell fragments (Chandler et al., 1985). **Figure 3**, **Site Geologic Map**, illustrates the surface geology at the site and neighboring areas.

Generalized near-surface stratigraphy of the site, in descending order, consists of (1) lean to flat clay down to an elevation of 10 feet MSL, (2) a poorly to well-sorted sand with lenses of clay down to elevations between -45 and -50 feet MSL, and (3) a basal clay layer (Unit 3). These units are considered part of the Pleistocene to Holocene age alluvial, low terrace, and coastal deposits described above.

The uppermost clay interval is described as a gray to brown to reddish-yellow, sandy lean clay that occasionally grades into an organic rich fat clay near the base of the unit. Some spatial heterogeneity is observed, as the clay is not present at boring location MW-1 and found to be much thicker at boring location MW-10. Portions of this clay-rich interval are likely inclusive of fill materials placed during construction of the Gypsum Pond.

Underlying the clay, an interval consists largely of coarse sediments and includes zones of clayey sand, well-sorted sand, poorly-sorted sand, and gravelly sand to gravel. The vertical and horizontal heterogeneity of these sands are not uncommon, as sand beds deposited in stream or creek valleys are lenticular and generally can be traced over only short distances (Davis, 1987). Clay stringers or clay-rich intervals are also encountered but are not prevalent. These clays represent low-energy deposition, while sands and gravels represent higher-energy environments. Gravel or sandy gravel intervals may be representative of buried creek beds.

Beneath the sandy layer, a medium to high plasticity, mottled gray to brown fat clay with sand was encountered in boring MW-8. At some locations (MW-6 and MW-7), the upper surface of this unit was described as a clayey sand or clayey gravel. Borings conducted at the site generally did not penetrate the vertical extent of this clay unit. However, limited data suggest this unit is 10 feet thick or greater beneath the site. **Figure 4A**, **Geologic Cross-Section A-A'** and **Figure 4B**, **Geologic Cross-Section B-B',** illustrate

the geologic layering beneath the site. The two major aquifers in northern Mobile County are the Miocene-Pliocene Aquifer and the Watercourse Aquifer.

The thickness of the Miocene-Pliocene Aquifer, which consists of the Miocene Series undifferentiated and the Pliocene-age Citronelle Formation, is about 3,400 feet in coastal areas to the south, but it is much thinner in northern Mobile County. This aquifer consists of beds of sand, gravel, and clay, where groundwater flows through sand and gravel beds that are irregular in thickness and of limited lateral extent. Clay intervals between the sand units are not laterally extensive enough to prevent downward movement of ground water, but they do provide semi-confinement in some areas. Correlation of one sand unit to another is difficult, due to the discontinuous nature of these deposits. In Northern Mobile County, the principal water-bearing sands in the aquifer are at the base of the Miocene- Pliocene sequence (Gillett et al., 2000). Although adequate supplies are available shallower, the Miocene-Pliocene Aquifer will yield one million gallons per day per well in deeper wells. Large-capacity wells screened in this aquifer generally range in depth from 150 to 800 feet BGS, with specific capacities that range from 5 to 35 gallons per minute per foot of drawdown (Reed and McCain, 1972).

The Watercourse Aquifer is composed of Quaternary alluvial and low terrace deposits consisting of interbedded sand, gravel, and clay. Buried sand and gravel channels, which yield large amounts of water, are surrounded by silty and clayey sediments that do not yield significant amounts of water but allow infiltration of water to recharge the sand and gravel beds. The present channels of the Mobile River are directly connected to some individual buried channels (Gillett et al., 2000). Alluvium and low terrace deposits in the Mobile River basin are a potential source of 0.5 to 1.0 million gallons per day per well. Wells ranging in depth from approximately 90 to 150 feet yield large capacities where saturated sands are of sufficient thickness. Specific capacities in these wells range from 6 to 73 gallons per minute per foot of drawdown (Reed and McCain, 1972).

Porous sands provide large quantities of water from deposits throughout Mobile County. Geologic units ranging in age from Miocene to Holocene are partially composed of permeable sands that yield water. Wells screened in these sands within 150 feet of the land surface typically yield adequate supplies for domestic use in northern Mobile County (Reed and McCain, 1972).

3.2.1 Uppermost Aquifer

The uppermost aquifer beneath the site corresponds to alluvial, low terrace, and coastal deposit sands, which are part of the Watercourse Aquifer system. At the site, the Watercourse Aquifer consists of medium to coarse sands with discrete gravelly sand and gravel. Clay nodules, lenses, and stringers are present, but are not prevalent. Depth to the top of the Watercourse Aquifer generally ranges between 15 and 25 feet below ground surface (BGS) and appears to extend down to approximately 65 to 70 feet BGS, where clays are encountered. Groundwater recharge to the Watercourse Aquifer is largely accomplished by infiltration of precipitation and subsequent percolation down to the water table. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered to be hydraulically connected due to the discontinuous nature of clay aquitards. Locally, semi-confined to confined conditions may be present when a sufficient aquitard separates the aquifers or sand units.

3.2.2 Flow Interpretation

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations south of the Gypsum Pond to lower topographic elevations to the north. East of the Gypsum Pond, groundwater flow bends towards the northeast and the Plant Barry discharge canal. Groundwater flow is accomplished by porous or Darcian flow mechanics through sands of the Watercourse Aquifer. A potentiometric surface map for the site is presented in a later section.

3.3 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring well network to monitor groundwater quality within the uppermost aquifer. The certified groundwater monitoring system for the Plant Barry Gypsum Pond is designed to monitor groundwater flow passing the waste boundary of the CCR unit. Wells were sited 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

The groundwater monitoring network comprises 11 monitoring wells and 1 piezometer. Piezometer BY-GSA-PZ-12 is used to enhance groundwater potentiometric surfaces and constrain flow direction. Monitoring well locations and piezometers are presented on **Figure 5, Monitoring Well Location Map**. **Table 1A, Compliance Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Barry Gypsum Pond.

3.3.1.1 Upgradient Wells

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

Monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 serve as upgradient locations for the Gypsum Pond. Groundwater generally flows from south to north across the Site. Upgradient wells are located south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the Site. **Table 1A** summarizes well construction details for upgradient monitoring well locations.

3.3.1.2 Downgradient Wells

Monitoring well locations BY-GSA-MW-5 through BY-GSA-MW-10 and BY-GSA-PZ-11 are used as downgradient locations for the Gypsum Pond. As requested in the ADEM Letter of November 14, 2019, Responding to CCR Documents Submitted to ADEM for Plants Barry, Miller, Gaston, Greene County, and Gorgas; piezometer BY-GSA-PZ-11 was re-designated and used as a downgradient monitoring well during the first semi-annual sampling event of 2020. This change was included in the updated Groundwater Monitoring Plan submitted to ADEM in April 2020 and revised in August 2020. Downgradient monitoring wells are located lateral to and north of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the site. **Table 1A** summarizes well construction details for downgradient monitoring well locations.

3.3.1.3 Piezometers

Location BY-GSA-PZ-12 is used as a water level-only piezometer to enhance groundwater potentiometric surfaces and constrain flow direction. **Table 1B, Piezometer Network Details**, summarizes the piezometer construction details and design purpose for the Plant Barry Gypsum Pond.

3.3.1.4 Monitoring Well Replacement and Abandonment

During the first 2022 semi-annual monitoring period, monitoring well replacement or abandonment activities were not performed.

3.4 GROUNDWATER MONITORING HISTORY

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

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, Alabama Power initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR §257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in April 2018, within 90 days of initiating the assessment monitoring program. Statistical evaluations of 2018 assessment monitoring data did not identify SSLs of Appendix IV constituents above the GWPS. Therefore, in accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), the Site remained in Assessment Monitoring.

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

Historical groundwater elevations and potentiometric surface maps show that groundwater flow patterns are consistent across monitoring events and as described in **Section 3.2.2**. Tables summarizing groundwater

elevations from all groundwater monitoring events since 2016 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 the Department on April 15, 2019, to conform State monitoring requirements under the CCR rule to Federal requirements. The variance:

1. Retains boron as an Appendix III detection monitoring parameter and excludes it as an Appendix IV assessment monitoring parameter.
2. Authorizes the use of Federally-published groundwater protection standards (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.

As required by § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the preceding year. The Site 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 did not identify SSLs of Appendix IV constituents above the GWPS. Therefore, in accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), the Site remained in assessment monitoring.

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

3.5.2 Sample Preservation and Handling

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

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

3.5.3 Chain of Custody

A COC record was used to track sample possession from the time of collection to the time of receipt at the laboratory. 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 and Pace Analytical Services, LLC (Pace). Both APCEL and Pace are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed**. Table 2, Monitoring Parameters and Reporting Limits**, lists assessment monitoring constituents analyzed from site groundwater samples. Groundwater data and COC records for the monitoring event 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 preceding monitoring period. The first 2022 semi-annual Assessment Monitoring sampling event occurred in May 2022.

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during the Assessment Monitoring event. All groundwater sampling activities were conducted by APC Field and Water Services. Pace Analytical Services performed the laboratory analyses of Radium-226 and Radium-228 (reported combined). APCEL performed the remaining Appendix III and Appendix IV analyses. Analytical data from the groundwater monitoring event 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 5.51 to 6.75 feet NAVD88 (feet above reference 1988 North American Vertical Datum). **Figure 6, Potentiometric Surface Contour Map (May 23, 2022)** depicts groundwater elevations and inferred groundwater flow direction from higher elevation to lower.

As shown on **Figure 6**, groundwater flows from south to north-to-northeast consistent with historic observations. Recent groundwater elevation data collected during the first semi-annual sampling event has been tabulated and included in **Table 3, Groundwater Elevation Summary.**

4.1 GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow rates at the Site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Slug testing results from piezometers located near the Gypsum Pond provide an average hydraulic conductivity of $4.27\ x10^{-3}$ cm/sec, which correlates favorably with a long duration pumping test of the Watercourse Aquifer that revealed an average hydraulic conductivity of $3.3\ x10^{-3}$ cm/sec. The pumping test-derived hydraulic conductivity value of 3.3 x 10^{-3} cm/sec or 9.4 ft/day was used because the larger volume of aquifer allows averaging of small-scale heterogeneities, while slug tests are smaller in scale and could allow more results to skew an average. An estimated effective porosity of 25% is used in the flow rate calculations.

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

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

Where:

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

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

i = Horizontal hydraulic gradient

n_e= Effective porosity

Using this equation, horizontal groundwater flow velocity is calculated for the site and is tabulated in **Appendix D, Groundwater Flow Velocity Calculations**. **Appendix D** presents the horizontal flow velocity calculated using groundwater elevation data measured during the first 2022 semi-annual sampling event.

5.0 EVALUATION OF GROUNDWATER QUALITY DATA

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

5.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

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

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

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

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

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

level detections observed during the first 2022 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.

Based on this data validation step, four chromium results have qualifiers modified from J to (+) U*, and the corresponding MDL value, updated to match the blank concentration detected on the same date. **Table 4C, Field QC: Validation Results (Blanks)** provides a summarized list of data validation flags that are applied to Site data during the second semi-annual monitoring period. 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, are used for calcium, chloride, sulfate, and TDS to determine whether there has been a statistically significant increase (SSI) over background groundwater quality. Interwell prediction limits, combined with a 1-of-2 verification strategy, are used to evaluate boron, fluoride, and pH. 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 statistically significant increases (SSIs) over background. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to identify SSIs.

Groundwater Stats Consulting demonstrated that these test methods were appropriate in the October 2017 Statistical Analysis Plan, which was updated in the September 2019 data screening evaluation. Time series

plots were used to screen proposed background data for suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective. Suspected outliers at all wells for Appendix III parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database.

The following adjustments were made:

- 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 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. 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 2022 semi-annual monitoring event conducted in May were statistically analyzed in accordance with the Professional Engineer (PE)-certified Statistical Analysis Plan (October 2017) and updated August 2020 performed by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

5.3.1 Appendix III Constituents

A review of the Sanitas results presented in **Appendix E, Statistical Analysis** identified the following Appendix III SSIs during the first 2022 semi-annual monitoring event:

- BY-GSA-MW-5: Boron, Calcium, Chloride, Sulfate, and TDS.
- BY-GSA-MW-6: Boron, Calcium, and TDS.
- BY-GSA-MW-7: None
- BY-GSA-MW-9: None.
- BY-GSA-MW-10: None.

Since the site is performing assessment monitoring, no further action is required regarding these SSIs.

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 E.**

A review of the Sanitas results presented in **Appendix E** did not identify any Appendix IV SSLs during the first 2022 semi-annual monitoring event. **Table 6, First Semi-Annual Monitoring Event Analytical Summary**, provides a summary of all constituent concentrations for the first 2022 semi-annual sampling event.

5.3.2.1 First Semi-Annual Groundwater Monitoring Event

A review of the Sanitas results presented in **Appendix E** did not identify any Appendix IV SSLs during the first semi-annual monitoring event. **Table 6, First Semi-Annual Monitoring Event Analytical Summary** provides a summary of all constituent concentrations for the first semi-annual sampling event of 2022.

6.0 SUMMARY AND CONCLUSIONS

Based on results reported in the *2017 Annual Groundwater and Corrective Action Monitoring Report*, APC initiated an assessment monitoring program on January 15, 2018. Groundwater samples were subsequently collected from the certified well network and analyzed for Appendix III and IV parameters.

The certified compliance monitoring well network is resampled on a semi-annual basis. The groundwater samples were analyzed for all Appendix III and IV parameters. Statistical evaluations of the May 2022 assessment monitoring data did not identify SSLs of Appendix IV constituents above the GWPS. Therefore, in accordance with § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), APC will continue assessment monitoring. The following future actions will be taken or are recommended for the Site:

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

- Submitted the 2021 Annual Groundwater Monitoring and Corrective Action Report to the Department on January 31, 2022.
- Completed the first 2022 semi-annual assessment groundwater monitoring event between May 23, 2022, and June 1, 2022.

The CCR Unit concluded the monitoring period in Assessment Monitoring. The following next steps will be taken for the CCR Unit:

- Continue semi-annual assessment monitoring in the fall of 2022 and submit Annual Groundwater Monitoring and Corrective Action Report of 2022 to the Department by January 31, 2023.

7.0 REFERENCES

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United States Geological Survey (USGS), 1980 (Photorevised 1985), The Basin Alabama Quadrangle, 7.5 Minute Series Topographic Map.

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

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

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Figures

Legend

- Property Boundary (Approximate)
- Gypsum Pond Boundary

N

0 1,000 2,000 4,000 6,000 8,000 Feet

SCALE	1:24000
DATE	11/5/2020
DRAWN BY	KWR
CHECKED BY	GBD

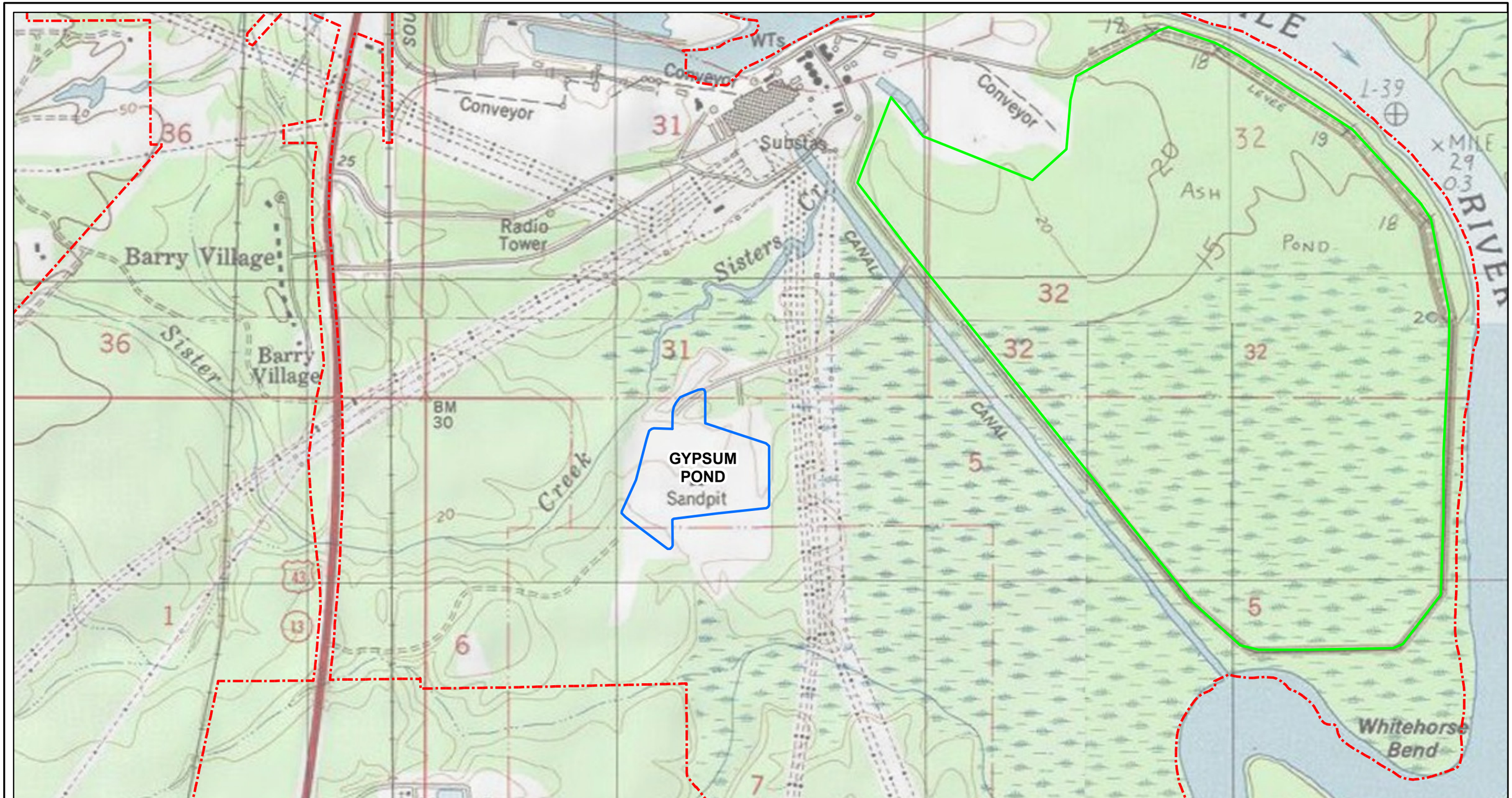
DRAWING TITLE

SITE LOCATION MAP
PLANT BARRY GYPSUM POND

FIGURE NO

FIGURE 1

Southern Company



Legend

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

N

0 1,000 2,000 4,000 Feet

SCALE	1:12000
DATE	11/5/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE

SITE TOPOGRAPHIC MAP
PLANT BARRY GYPSUM POND

FIGURE NO

FIGURE 2

Southern Company

Legend

- Gypsum Pond
- Property Boundary (Approximate)

Geologic Units

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

N

0 1,000 2,000 4,000 6,000 Feet

SCALE	1:20000
DATE	11/5/2020
DRAWN BY	KWR
CHECKED BY	GBD

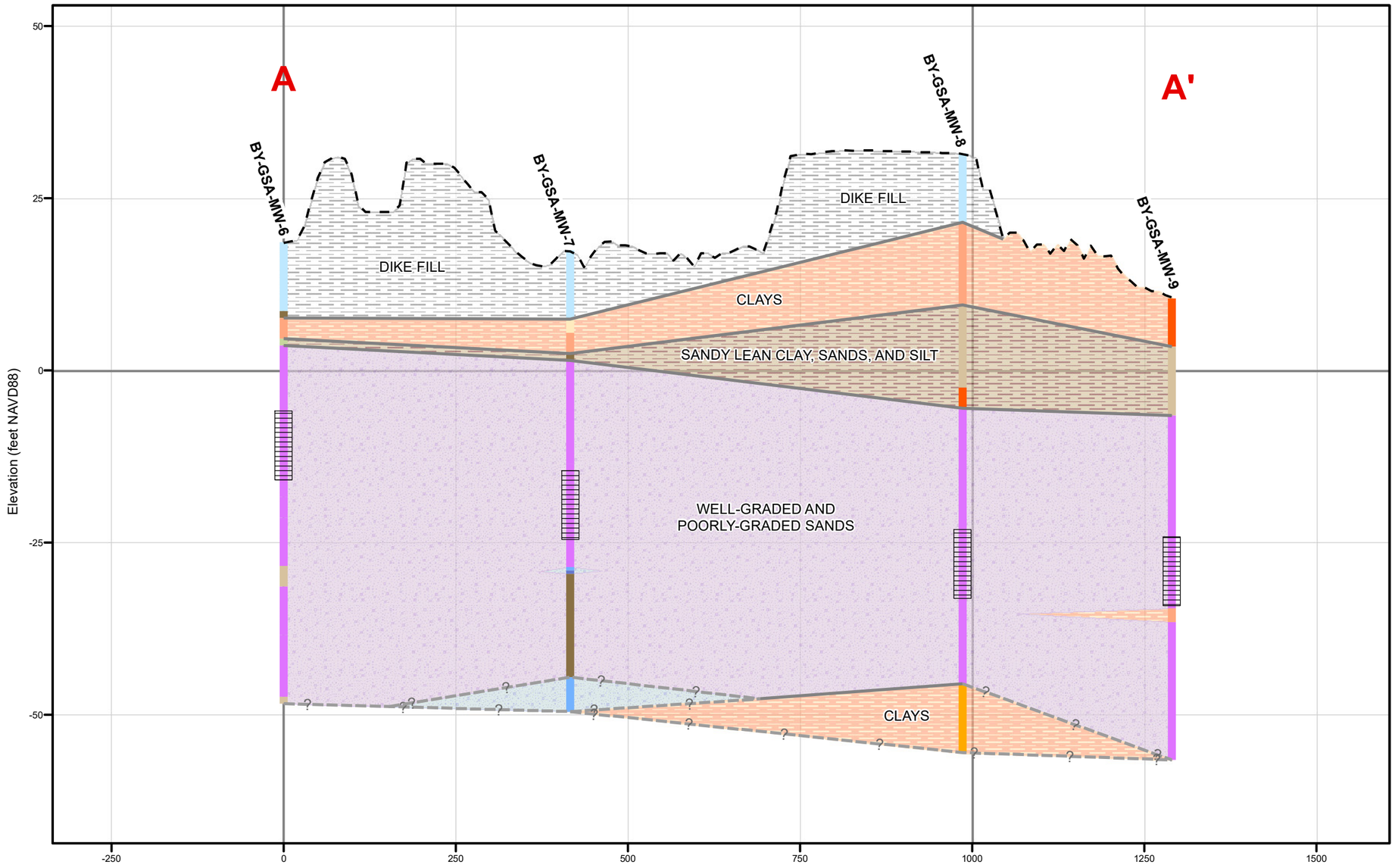
DRAWING TITLE

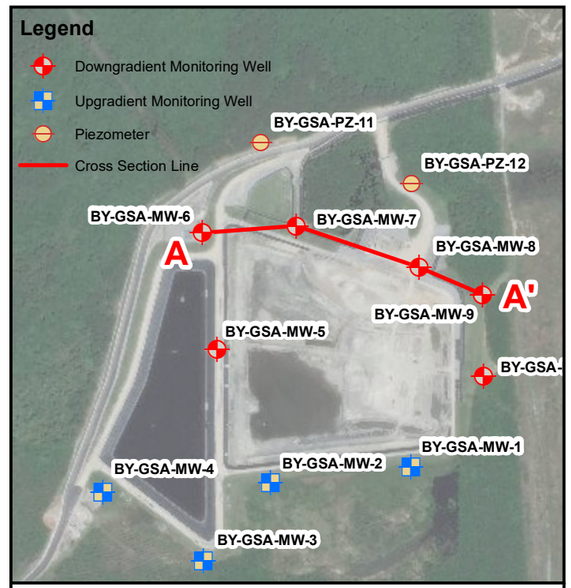
SITE GEOLOGIC MAP
PLANT BARRY GYPSUM POND

FIGURE NO

FIGURE 3

Southern Company





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

Legend

Ground Surface Elevation
Screened Interval
Unit Boundary (inferred)
Unit Boundary

Borehole Description

- Hydroexcavation
- Fat Clay
- Lean Clay
- Sandy Fat Clay
- Sandy Lean Clay
- Silt
- Clayey Sand
- Silty Sand
- Well-graded and Poorly-graded Sand
- Clayey Gravel
- Silty Gravel

Geologic Unit

- Fill
- Clays
- Sandy Lean Clay, Sands, and Silt
- Sands
- Gravels

SCALE	As Shown
DATE	6/22/2020
DRAWN BY	KWR
CHECKED BY	GBD

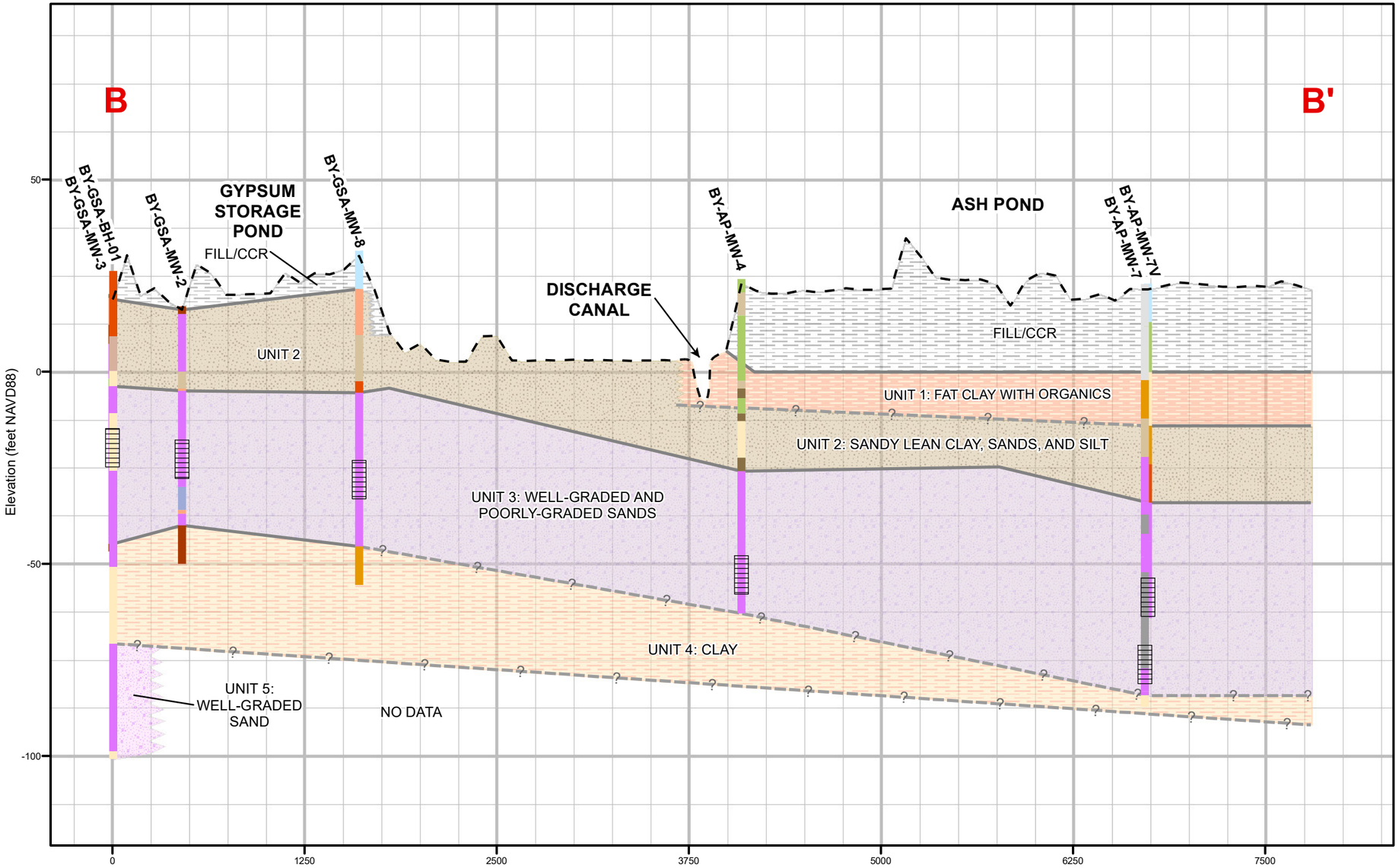
DRAWING TITLE

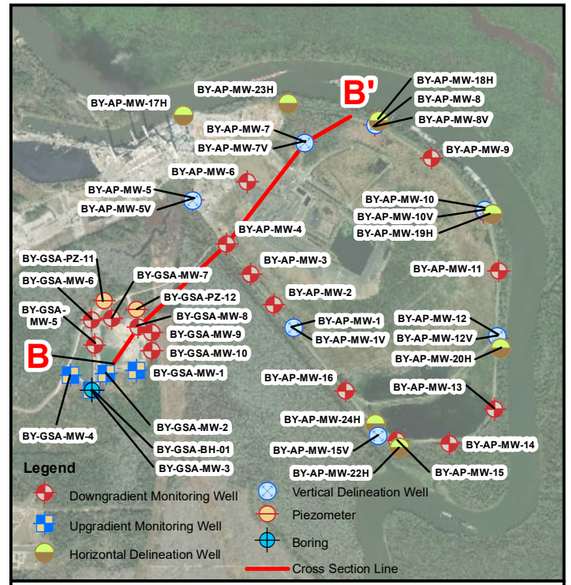
GEOLOGIC CROSS SECTION A - A'
PLANT BARRY GYPSUM POND

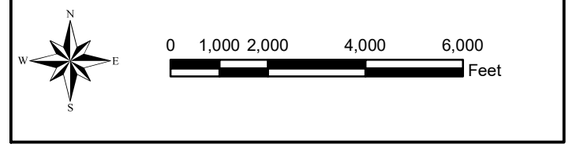
FIGURE NO

FIGURE 4A

Southern Company







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

Legend

Borehole Description

- Ground Surface Elevation
- Screen Interval
- Unit Boundary (inferred)
- Unit Boundary
- Hydroexcavation
- Fill
- No Recovery
- Fat Clay
- Lean Clay
- Sandy Fat Clay
- Sandy Lean Clay
- Organic Silt or Clay
- Silt
- Clayey Sand
- Clayey Silty Sand
- Silty Sand
- Well-graded and Poorly-graded Sands
- Well-graded and Poorly-graded Gravels

Geologic Unit

- Fill
- Unit 1: Fat Clay with Organics
- Unit 2: Sandy Lean Clay, Sands, and Silts
- Unit 3: Well-graded and Poorly-graded Sands
- Unit 4: Clay
- Unit 5: Well-Graded Sand

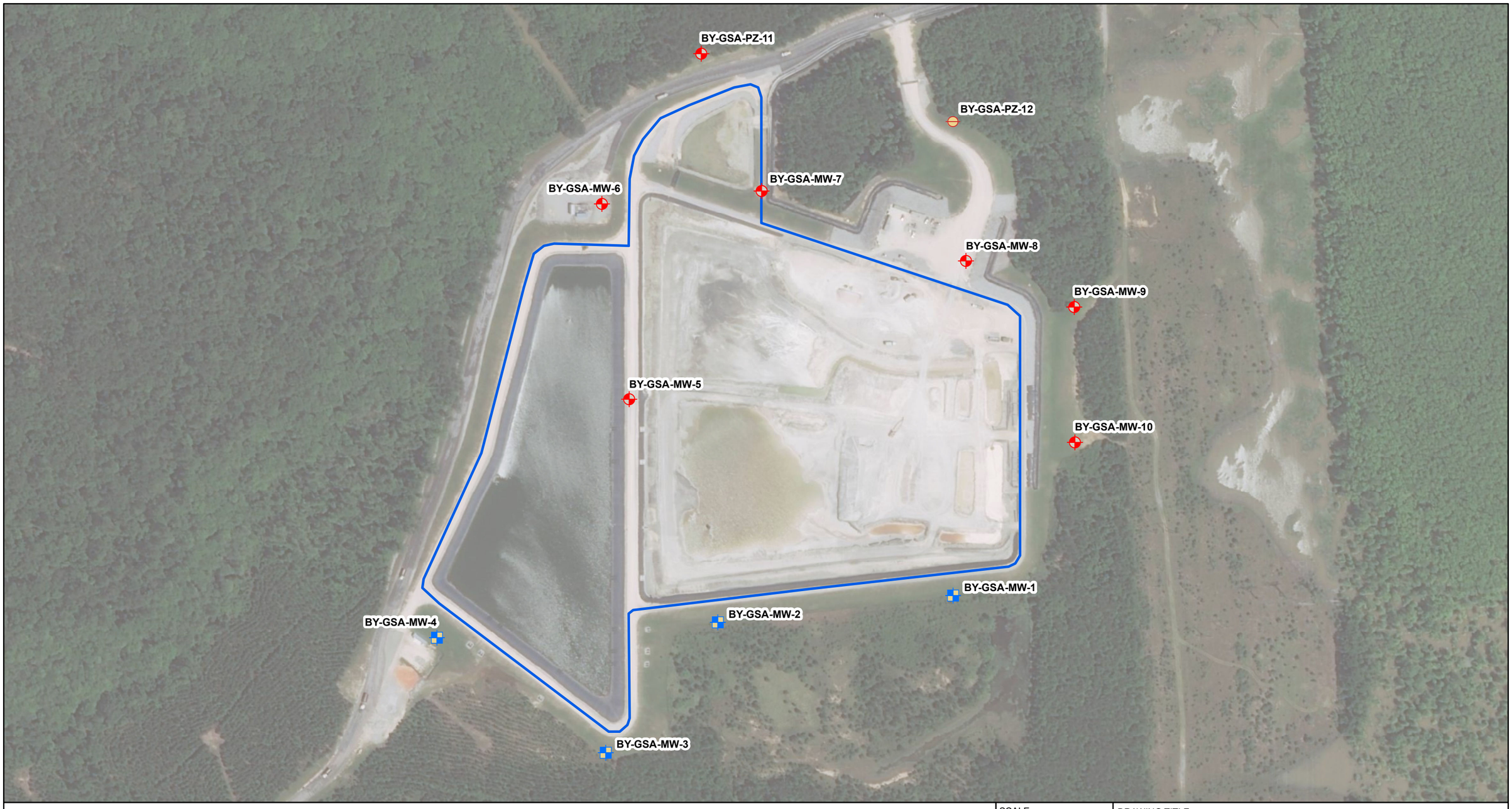
SCALE	As Shown
DATE	6/22/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE

GEOLOGIC CROSS SECTION B - B'
PLANT BARRY GYPSUM POND

FIGURE NO **FIGURE 4B**

Southern Company



Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Piezometer
- Gypsum Pond

N

0 250 500 1,000 Feet

SCALE	1:3000
DATE	7/26/2021
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE

MONITORING WELL LOCATION MAP
PLANT BARRY GYPSUM POND

FIGURE NO

FIGURE 5

Southern Company

Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Piezometer
- Potentiometric Surface Contour (ft NAVD)
- Groundwater Flow Direction
- Gypsum Pond

BY-GSA-MW-1 Well ID
6.17 Groundwater Elevation

N

0 250 500 1,000 Feet

SCALE	1:3000
DATE	7/28/2022
DRAWN BY	KAR
CHECKED BY	GBD

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
MAY 23, 2022
PLANT BARRY GYPSUM POND

FIGURE NO
FIGURE 6

Southern Company

Tables

Southern Company

Table 1a. - Compliance Monitoring Well Network Details
Plant Barry Gypsum Storage Area

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											
BY-UP-MW-1	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99445	-88.01134	17.49	20.66	44.4	-13.23	-23.23	10	10/7/2015
BY-UP-MW-2	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99425	-88.01331	17.00	19.95	47.6	-17.23	-27.23	10	10/7/2015
BY-UP-MW-3	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.9933	-88.01424	20.15	23.24	48.5	-14.89	-24.89	10	10/7/2015
BY-UP-MW-4	Upgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99413	-88.01566	26.16	29.12	64.1	-24.54	-34.54	10	10/13/2015
BY-GSA-MW-5	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99585	-88.01406	31.21	34.31	69.1	-24.41	-34.41	10	10/8/2015
BY-GSA-MW-6	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	30.99726	-88.0143	18.60	21.68	37.9	-5.80	-15.80	10	10/8/2015
BY-GSA-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99736	-88.01296	17.46	20.59	45.5	-14.54	-24.54	10	10/8/2015
BY-GSA-MW-8	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99686	-88.01125	31.51	34.36	68.8	-24.08	-34.08	10	10/8/2015
BY-GSA-MW-9	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99654	-88.01034	10.44	13.32	46.1	-22.42	-32.42	10	10/8/2015
BY-GSA-MW-10	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99556	-88.01032	14.65	17.61	44.7	-16.68	-26.68	10	10/8/2015
BY-GSA-PZ-11	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99835	-88.01347	23.56	25.92	57.9	-21.60	-31.60	10	10/8/2015

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. - Piezometer Well Network Details Plant Barry Gypsum Storage Area

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											
BY-GSA-PZ-12	Piezometer	Unit 3: Middle Sands (Watercourse Aq)	30.99787	-88.01136	14.14	17.43	43.5	-15.65	-25.65	10	10/8/2015

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 WGS 84 from NAD 27/83, State Plane, Alabama, feet.
(2) Vertical elevations are in feet relative to the North American Vertical Datum (NAVD)1988.
(3) Total well depth accounts for sump if data provided on well construction logs.

Southern Company

Table 2. Parameters And Reporting Limits

Plant Barry Gypsum Storage Area
05/31/2022 - 05/31/2022

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	mg/L
Chloride	SM4500Cl E	1	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
pH Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	2	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	0.001015	mg/L
Beryllium	EPA 200.8	0.001015	mg/L
Cadmium	EPA 200.8	0.000203	mg/L
Chromium	EPA 200.8	0.001015	mg/L
Cobalt	EPA 200.8	0.000203	mg/L
Fluoride	SM4500F G 2017	0.125	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	NA	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

Southern Company

Table 3. Groundwater Elevations Summary

Plant Barry Gypsum Storage Area
05/23/2022

Well	Measure Date	TOC Elevation (ft. NAVD)	Depth to Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)
BY-GSA-MW-1	05/23/2022	20.66	14.49	6.17
BY-GSA-MW-2	05/23/2022	19.95	13.92	6.03
BY-GSA-MW-3	05/23/2022	23.24	16.49	6.75
BY-GSA-MW-4	05/23/2022	29.12	22.75	6.37
BY-GSA-MW-5	05/23/2022	34.31	28.19	6.12
BY-GSA-MW-6	05/23/2022	21.68	15.94	5.74
BY-GSA-MW-7	05/23/2022	20.59	14.87	5.72
BY-GSA-MW-8	05/23/2022	34.36	28.34	6.02
BY-GSA-MW-9	05/23/2022	13.32	7.31	6.01
BY-GSA-MW-10	05/23/2022	17.61	11.36	6.25
BY-GSA-PZ-11	05/23/2022	25.92	20.41	5.51
BY-GSA-PZ-12	05/23/2022	17.43	11.60	5.83

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

Southern Company

Table 4a. Relative Percent Difference (RPD) Calculations

Plant Barry Gypsum Storage Area
05/31/2022 - 05/31/2022

BY-GSA-MW-6				
Sample Date = 5/31/2022				
Analyte	**Units**	**Original Result**	**Duplicate Result**	**RPD (%)**
Boron	mg/L	0.685	0.683	0.29%
Calcium	mg/L	9.98	9.88	1.01%
Chloride	mg/L	7.22	7.1	1.68%
Sulfate	mg/L	38.6	37.9	1.83%
Arsenic	mg/L	0.00052	0.00048	8.08%
Barium	mg/L	0.202	0.205	1.47%
Cadmium	mg/L	0.00023	0.00024	2.94%
Chromium	mg/L	0.00412	0.004	2.96%
Cobalt	mg/L	0.00724	0.00732	1.10%
Selenium	mg/L	0.0132	0.0131	0.76%
BY-UP-MW-3				
Sample Date = 5/31/2022				
Analyte	**Units**	**Original Result**	**Duplicate Result**	**RPD (%)**
Calcium	mg/L	1.95	1.97	1.02%
Chloride	mg/L	3.39	3.41	0.59%
Sulfate	mg/L	7.02	7.18	2.25%
Barium	mg/L	0.0992	0.101	1.80%
Chromium	mg/L	0.00139	0.00134	3.66%
Cobalt	mg/L	0.00149	0.00152	1.99%

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 Barry Gypsum Storage Area
06/01/2022 - 06/01/2022

Parameters Detected Above MDL					
Sample Date	**QC Location**	**Parameter**	**Blank Concentration**	**Units**	**MDL**
06/01/2022	EB-1	Chromium	0.00025 J	mg/L	0.0002
06/01/2022	FB-1	Chromium	0.00027 J	mg/L	0.0002

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

Table 4c – Field QC: Data Validation Results (Blanks)

Plant Barry Gypsum Storage Area
06/01/2022 - 06/01/2022

List of Compliance Sample Concentrations < 5x Blank Concentrations							
Sample Date	**QC Sample**	**Parameter**	**QC Sample Result (5x)**	**Sample Location**	**Result**	**Units**	**Validation Flag**
06/01/2022	EB-1	Chromium	0.00125	BY-GSA-MW-10	0.00089 J	mg/L	+(U)*
06/01/2022	FB-1	Chromium	0.00137	BY-GSA-MW-10	0.00089 J	mg/L	+(U)*
06/01/2022	EB-1	Chromium	0.00125	BY-GSA-MW-9	0.00104 v	mg/L	+(U)*
06/01/2022	FB-1	Chromium	0.00137	BY-GSA-MW-9	0.00104 v	mg/L	+(U)*

Notes:
1. Lab qualifiers have been appended to result when applicable
2. QC Sample listed represents the source of comparison, validation flag.
3. Only Appendix 4 Constituents were compared and validated. Radium data was not validated.
4. mg/L = milligrams per liter
5. Wells with concentrations less than 5x Blank Detections are flagged with (U)*.

Southern Company

Table 5. Summary of Background Levels and Groundwater Protection Standards

Plant Barry Gypsum Storage Area

Analyte	Units	Background	GWPS
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.0157
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002
Combined Radium 226 + 228	pCi/L	3	5

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

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	BY-UP-MW-1	05/31/2022	57.06	0.34	193.96	3.89	20.77	2
Upgradient	BY-UP-MW-2	05/31/2022	50.04	6.27	226.41	3.31	20	4.82
Upgradient	BY-UP-MW-3	05/31/2022	49.57	5.82	223.76	3.54	20.09	3.1
Upgradient	BY-UP-MW-4	05/31/2022	52.45	6.48	223.18	3.97	22.67	8.23
Downgradient	BY-GSA-MW-10	06/01/2022	58.57	4.43	351.55	4.56	20.8	4.6
Downgradient	BY-GSA-MW-5	05/31/2022	168.62	4.41	272.37	4.61	23.83	4.65
Downgradient	BY-GSA-MW-6	05/31/2022	143.33	4.64	275.76	4.98	22.95	3.42
Downgradient	BY-GSA-MW-7	06/01/2022	64.53	2.66	347.78	4.56	22.13	4.86
Downgradient	BY-GSA-MW-8	06/01/2022	44.9	0.87	404.01	4.03	22.17	2.9
Downgradient	BY-GSA-MW-9	06/01/2022	64.76	3.03	308.06	4.49	21.31	4.02
Downgradient	BY-GSA-PZ-11	06/01/2022	49.53	5.02	352.58	4.74	22.95	3.83

Notes:
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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.

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	BY-UP-MW-1	05/31/2022	0.0567 J	1.14	1.93	<0.06	3.89	12.8
Upgradient	BY-UP-MW-2	05/31/2022	<0.03	1.24	2.17	<0.06	3.31	8.09
Upgradient	BY-UP-MW-3	05/31/2022	<0.03	1.95	3.39	<0.06	3.54	7.02
Upgradient	BY-UP-MW-4	05/31/2022	<0.03	2.02	3.31	<0.06	3.97	7.94
Downgradient	BY-GSA-MW-10	06/01/2022	0.0493 J	1.04	3.35	<0.06	4.56	11.4
Downgradient	BY-GSA-MW-5	05/31/2022	0.939	8.52	7.83	<0.06	4.61	48.7
Downgradient	BY-GSA-MW-6	05/31/2022	0.685	9.98	7.22	<0.06	4.98	38.6
Downgradient	BY-GSA-MW-7	06/01/2022	<0.03	1.27	14.7	<0.06	4.56	3.4
Downgradient	BY-GSA-MW-8	06/01/2022	<0.03	0.94	5.38	<0.06	4.03	5.11
Downgradient	BY-GSA-MW-9	06/01/2022	0.0933 J	1.55	4.29	<0.06	4.49	13
Downgradient	BY-GSA-PZ-11	06/01/2022	0.0564 J	1.13	7.97	<0.06	4.74	4.75

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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.

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	BY-UP-MW-1	05/31/2022	<0.000508	0.000237	0.1	<0.000406	<6.8e-005	0.000334 J	0.00487	<0.06
Upgradient	BY-UP-MW-2	05/31/2022	<0.000508	8.79e-005 J	0.153	0.000413 J	<6.8e-005	0.0012	0.00194	<0.06
Upgradient	BY-UP-MW-3	05/31/2022	<0.000508	<8.1e-005	0.0992	<0.000406	<6.8e-005	0.00139	0.00149	<0.06
Upgradient	BY-UP-MW-4	05/31/2022	<0.000508	0.000203	0.129	<0.000406	<6.8e-005	0.00156	0.0015	<0.06
Downgradient	BY-GSA-MW-10	06/01/2022	<0.000508	8.93e-005 J	0.136	<0.000406	<6.8e-005	0.000893 J	0.0027	<0.06
Downgradient	BY-GSA-MW-5	05/31/2022	<0.000508	0.000527	0.226	0.000713 J	0.000122 J	0.00281	0.00606	<0.06
Downgradient	BY-GSA-MW-6	05/31/2022	<0.000508	0.000515	0.202	0.00066 J	0.000235	0.00412	0.00724	<0.06
Downgradient	BY-GSA-MW-7	06/01/2022	<0.000508	0.000238	0.0803	<0.000406	<6.8e-005	0.00157	0.00162	<0.06
Downgradient	BY-GSA-MW-8	06/01/2022	<0.000508	<8.1e-005	0.0477	<0.000406	<6.8e-005	0.00226	0.000482	<0.06
Downgradient	BY-GSA-MW-9	06/01/2022	<0.000508	0.000105 J	0.142	<0.000406	<6.8e-005	0.00104	0.00131	<0.06
Downgradient	BY-GSA-PZ-11	06/01/2022	<0.000508	<8.1e-005	0.0821	<0.000406	<6.8e-005	0.00292	0.00143	<0.06

Notes:
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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.

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

EPA Appendix IV Set									
Hydraulic Location	**Well**	**Sample Date**	**Lead mg/L**	**Lithium mg/L**	**Mercury mg/L**	**Molybdenum mg/L**	**Selenium mg/L**	**Thallium mg/L**	**Combined Radium 226 + 228 pCi/L**
Upgradient	BY-UP-MW-1	05/31/2022	8.38e-005 J	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.34
Upgradient	BY-UP-MW-2	05/31/2022	7.81e-005 J	<0.007105	<0.0003	<0.000102	0.000633 J	<6.8e-005	1.38
Upgradient	BY-UP-MW-3	05/31/2022	<6.8e-005	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.67
Upgradient	BY-UP-MW-4	05/31/2022	0.000173 J	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.47
Downgradient	BY-GSA-MW-10	06/01/2022	0.000102 J	<0.007105	<0.0003	<0.000102	0.00125	<6.8e-005	2.27
Downgradient	BY-GSA-MW-5	05/31/2022	0.000182 J	<0.007105	0.000362 J	<0.000102	0.0217	<6.8e-005	2.31
Downgradient	BY-GSA-MW-6	05/31/2022	0.000111 J	<0.007105	0.000345 J	<0.000102	0.0132	<6.8e-005	2.22
Downgradient	BY-GSA-MW-7	06/01/2022	7.97e-005 J	<0.007105	<0.0003	<0.000102	0.000581 J	<6.8e-005	0.99
Downgradient	BY-GSA-MW-8	06/01/2022	<6.8e-005	<0.007105	<0.0003	<0.000102	<0.000508	<6.8e-005	1.37
Downgradient	BY-GSA-MW-9	06/01/2022	0.000232	<0.007105	<0.0003	<0.000102	0.00204	<6.8e-005	2.05
Downgradient	BY-GSA-PZ-11	06/01/2022	0.00012 J	<0.007105	<0.0003	<0.000102	0.00132	<6.8e-005	1.13

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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 Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L	Manganese Total mg/L	Sodium mg/L	Silica mg/L	Silicon mg/L	Carbon, Total Organic mg/L
Upgradient	BY-UP-MW-1	05/31/2022	4.8	0.444 J	2.23	0.154	2.05	6.74	3.15	1.58 J
Upgradient	BY-UP-MW-2	05/31/2022	0.0704	0.905	2.48	0.0241	2.25	8.39	3.92	1.14 J
Upgradient	BY-UP-MW-3	05/31/2022	0.027 J	0.987	2.05	0.0196	3.11	8.6	4.02	<1
Upgradient	BY-UP-MW-4	05/31/2022	0.222	1.05	2.2	0.0173	2.69	8.82	4.12	<1
Downgradient	BY-GSA-MW-10	06/01/2022	0.0987	0.827	2.58	0.04	2.62	7.9	3.69	1.17 J
Downgradient	BY-GSA-MW-5	05/31/2022	0.0362 J	1.83	8.35	0.0615	4.4	10.6	4.97	<1
Downgradient	BY-GSA-MW-6	05/31/2022	0.0318 J	1.68	6.24	0.0748	3.98	10.7	4.99	<1
Downgradient	BY-GSA-MW-7	06/01/2022	0.111	1.09	1.4	0.0157	7.53	10.4	4.86	<1
Downgradient	BY-GSA-MW-8	06/01/2022	0.0374 J	0.891	1.09	0.0175	4.84	11.2	5.23	<1
Downgradient	BY-GSA-MW-9	06/01/2022	0.0286 J	0.971	2.59	0.0427	2.84	8.37	3.91	<1
Downgradient	BY-GSA-PZ-11	06/01/2022	0.0679	1.28	1.32	0.0125	3.95	10.6	4.96	<1

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Southern Company

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Alkalinity Total as CaCO3 mg/L	Carbonate Alkalinity as CaCO3 mg/L	Bicarbonate Alkalinity as CaCO3 mg/L	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Aluminum mg/L	Sulfide mg/L
Upgradient	BY-UP-MW-1	05/31/2022	8.56	-10000	8.56	1.93	<0.2	12.8	0.0898	0
Upgradient	BY-UP-MW-2	05/31/2022	0.44	-10000	-10000	2.17	1.84	8.09	0.127	0
Upgradient	BY-UP-MW-3	05/31/2022	1.24	-10000	1.24	3.39	2.11	7.02	0.0446	0
Upgradient	BY-UP-MW-4	05/31/2022	0.44	-10000	-10000	3.31	2.55	7.94	0.233	0
Downgradient	BY-GSA-MW-10	06/01/2022	0.36	-10000	-10000	3.35	0.643	11.4	0.28	0
Downgradient	BY-GSA-MW-5	05/31/2022	--	-10000	-10000	7.83	1.3	48.7	0.263	0
Downgradient	BY-GSA-MW-6	05/31/2022	7.08	-10000	7.08	7.22	1.22	38.6	0.289	0
Downgradient	BY-GSA-MW-7	06/01/2022	1.88	-10000	1.88	14.7	0.326	3.4	0.0846	0
Downgradient	BY-GSA-MW-8	06/01/2022	4.76	-10000	4.76	5.38	0.237 J	5.11	0.028	0
Downgradient	BY-GSA-MW-9	06/01/2022	0.32	-10000	-10000	4.29	0.314	13	0.225	0
Downgradient	BY-GSA-PZ-11	06/01/2022	0.44	-10000	-10000	7.97	0.457	4.75	0.232	0

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Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
05/31/2022 - 06/01/2022

General Chemistry and MNA Parameters			
Hydraulic Location	**Well**	**Sample Date**	**Calcium mg/L**
Upgradient	BY-UP-MW-1	05/31/2022	1.14
Upgradient	BY-UP-MW-2	05/31/2022	1.24
Upgradient	BY-UP-MW-3	05/31/2022	1.95
Upgradient	BY-UP-MW-4	05/31/2022	2.02
Downgradient	BY-GSA-MW-10	06/01/2022	1.04
Downgradient	BY-GSA-MW-5	05/31/2022	8.52
Downgradient	BY-GSA-MW-6	05/31/2022	9.98
Downgradient	BY-GSA-MW-7	06/01/2022	1.27
Downgradient	BY-GSA-MW-8	06/01/2022	0.94
Downgradient	BY-GSA-MW-9	06/01/2022	1.55
Downgradient	BY-GSA-PZ-11	06/01/2022	1.13

Notes:
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Appendix A

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Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-UP-MW-1																			
		02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021	10/19/2021	05/31/2022
Appendix III																					
Boron	mg/L	0.0212 J	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	0.0362 J	0.11	0.188	0.097 J	0.157	0.0999 J	0.0841 J	0.0708 J	0.0564 J
Calcium	mg/L	1.28	1.19	1.19	1.11	1.04	1.19	--	1.05	0.978	1.14	--	1.64	2.01	1.85	1.55	1.96	1.43	1.34	1.17	1.14
Chloride	mg/L	3.59	2.89	3.12	3.91	3.9	--	3.5	3.5	3.1	4	--	9.9	4.7	5.48	3.65	3.17	2.92	2.18	2.37	1.93
Fluoride	mg/L	0.03 J	0.023 J	0.062 J	0.053 J	0.042 J	--	<0.032	0.04 J	<0.032	0.04 J	<0.032	0.04 J	<0.032	0.0502 J	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.62	4.74	4.65	4.64	4.74	4.54	4.67	4.79	4.76	4.81	4.79	4.62	4.73	4.65	4.57	4.64	4.65	4.74	4.67	3.89
Sulfate	mg/L	8.59	8.27	8.66	9.74	10.2	--	8.3	6.6	7.6	8.4	--	5.9	22	23.3	17.5	24.3	16.5	16.3	15.5	12.8
TDS	mg/L	26.7	--	32.7	33.3	27.3	32	--	31.3	35.3	36.7	--	34	50.7	58	46	53.3	42	40.7	40	32
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000925 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000336	0.000346	0.000168 J
Barium	mg/L	0.117	0.099	0.107	0.106	0.102	0.0944	--	0.0868	0.0799	--	0.0884	0.137	0.157	0.166	0.129	0.176	0.124	0.123	0.103	0.1
Beryllium	mg/L	<0.0006	<0.0006	0.000612 J	<0.0006	<0.0006	<0.0006	--	0.00069 J	<0.0006	--	<0.0006	<0.0006	0.000856 J	<0.0006	<0.0006	<0.0006	<0.0006	0.000694 J	<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	0.000296 J	0.000301 J	0.000334 J
Cobalt	mg/L	0.0035 J	0.0038 J	0.00427 J	0.00348 J	0.00338 J	0.00308 J	--	0.00314 J	0.0036 J	--	0.00586 J	0.00702 J	0.0157	0.0109	0.0129	0.0123	0.00697	0.00611	0.00517	0.00484
Combined Radium 226+228	pCi/L	2.8971 U	1 U	0.841	1.74	1.47	0.952	--	0.768	1.04	--	0.513 U	0.916	1.37	1.57	0.905	1.77	1.77	0.639 U	1.77	1.34
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	9.79e-005 J	0.000115 J	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	<6.8e-005	<6.8e-005	<0.000102
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-UP-MW-2																			
		02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/19/2021	05/31/2022
Appendix III																					
Boron	mg/L	0.0252 J	<0.02	0.0202 J	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	0.0207 J	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.11	1.09	1.16	1.08	1.03	1.23	--	1.28	1.25	1.6	--	1.58	1.49	1.59	1.7	1.43	1.5	1.39	1.32	1.24
Chloride	mg/L	3.99	4.08	4.28	4.26	4.26	--	4.1	5	3.9	4.3	--	3.7	3.2	2.93	2.75	2.72	2.32	2.16	2.08	2.17
Fluoride	mg/L	0.02 J	0.021 J	0.06 J	0.05 J	0.04 J	--	<0.032	0.04 J	0.04 J	0.043 J	0.04 J	0.04 J	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.79	4.84	4.81	4.76	4.84	4.6	4.71	4.8	4.72	4.71	4.67	4.61	4.72	4.58	4.43	4.6	4.67	4.29	4.6	3.31
Sulfate	mg/L	7.2	7.22	7.92	8.17	7.99	--	6.1	5	5.3	4.9 J	--	4.2 J	3.7 J	5.94	6.04	6.83	6.08	7.92	7.48	8.09
TDS	mg/L	30.7	--	35.3	27.3	--	32.7	--	30.7	34.7	39.3	--	42	31.3	40	41.3	40	40.7	35.3	36	30.7
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000898 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000136 J	0.000122 J	8.79e-005 J
Barium	mg/L	0.111	0.0875	0.0979	0.108	0.103	0.109	--	0.125	0.108	--	0.153	0.167	0.158	0.172	0.183	0.171	0.172	0.165	0.145	0.153
Beryllium	mg/L	<0.0006	<0.0006	0.00093 J	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	0.000801 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	0.000413 J
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	--	0.00596 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00136	0.00135	0.0012
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	0.0021 J	<0.002	0.00209 J	0.00248 J	0.00244 J	0.00224 J	0.00219 J	0.00194	0.00192	0.00187
Combined Radium 226+228	pCi/L	1 U	1 U	0.652	0.411 U	1	0.398 U	--	0.66	0.639	--	0.669 U	1.06	0.636	0.579 U	1.33	0.814	0.653 U	0.945 U	1.85	1.38
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	0.000118 J	0.0001 J	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	<6.8e-005	<6.8e-005	<0.000102
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	0.000602 J	<0.000508	0.000575 J
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-UP-MW-3																			
		02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/18/2021	05/31/2022
Appendix III																					
Boron	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.77	1.68	1.68	1.62	1.53	1.65	--	1.58	1.55	1.71	--	1.76	1.69	1.74	1.86	1.92	1.97	2.06	2.1	1.94
Chloride	mg/L	3.68	3.72	3.66	3.7	3.77	--	3.7	4.6	3.4	3.9	--	4.1	3.5	3.58	3.64	3.47	3.47	3.42	3.41	3.41
Fluoride	mg/L	0.02 J	0.016 J	0.052 J	0.038 J	0.03 J	--	<0.032	0.1	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.96	4.94	4.96	4.92	4.98	4.74	4.9	4.98	4.94	4.93	4.91	4.87	4.94	4.8	4.52	4.4	4.76	4.53	4.55	3.54
Sulfate	mg/L	7.44	7.66	8.16	8.43	8.47	--	7.4	6.3	7.1	7.3	--	6.9	6.5	7.81	7.62	7.98	7.13	7.73	7.36	7.02
TDS	mg/L	40	32	38.7	31.3	26.7	30	--	30.7	32.7	38	--	35.3	36	37.3	36.7	39.3	42.7	44	54	35.3
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000911 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	8.69e-005 J	<8.1e-005
Barium	mg/L	0.0862	0.0718	0.0754	0.0768	0.0727	0.0698	--	0.0723	0.07	--	0.0747	0.0877	0.0804	0.0831	0.089	0.0927	0.0919	0.0981	0.0935	0.0993
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	7.25e-005 J	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	0.00229 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00146	0.00135	0.00122
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	0.00142	0.00156	0.00154
Combined Radium 226+228	pCi/L	1 U	1 U	0.342 U	0.702	0.791	0.0613 U	--	0.974	0.748	--	0.558 U	0.296 U	0.357 U	0.275 U	0.458 U	0.941	1.05	0.521 U	1.75	1.67
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	<6.8e-005	<6.8e-005	<0.000102
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-UP-MW-4																			
		02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/12/2017	01/23/2018	05/01/2018	11/26/2018	05/28/2019	10/02/2019	03/31/2020	09/08/2020	05/11/2021	10/18/2021	05/31/2022
Appendix III																					
Boron	mg/L	0.0257 J	<0.02	<0.02	<0.02	0.022 J	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.42	1.31	1.35	1.31	1.22	1.36	--	1.24	1.28	1.47	--	1.47	1.52	1.6	1.7	1.78	1.94	1.93	2.01	2.02
Chloride	mg/L	3.5	3.63	3.6	3.54	3.68	--	4.6	3.9	3.4	4.3	--	3.8	3.6	3.6	3.5	3.34	3.29	3.33	3.32	3.31
Fluoride	mg/L	0.02 J	0.015 J	0.05 J	0.036 J	0.025 J	--	<0.032	0.1	0.1	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.74	4.86	4.88	4.91	4.95	4.71	4.83	4.93	4.9	4.82	4.85	4.8	4.88	4.73	4.67	4.51	4.75	4.67	4.38	3.97
Sulfate	mg/L	7.04	6.74	7.04	7.57	6.62	--	7	5.6	6.6	7.2	--	5.9	5.1	7.1	6.88	10.8	6.52	6.8	6.58	7.94
TDS	mg/L	--	--	28.7	25.3	--	26	--	--	42.7	26.7	--	34.7	32.7	31.3	36	36.7	39.3	46.7	36	36.7
Appendix IV																					
Antimony	mg/L	0.000606 J	<0.0006	<0.0006	<0.0006	<0.0006	0.000928 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	0.0017 J	<0.001	0.000217	0.000193 J	0.000203
Barium	mg/L	0.0973	0.0802	0.0862	0.0841	0.0715	0.0825	--	0.0777	0.078	--	0.0825	0.102	0.0994	0.102	0.111	0.129	0.125	0.125	0.124	0.129
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<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	0.00604 J	<0.002	0.00159	0.00146	0.00156
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	0.00137	0.00139	0.00138
Combined Radium 226+228	pCi/L	2.1138	1 U	0.757	0.992	0.905	1.08	--	1.18	1.1	--	1.32 U	1.19	0.863	0.474 U	0.624 U	1.09	1.27	0.969 U	2.19	1.47
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	0.00126 J	<0.001	0.000159 J	0.00012 J	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	<6.8e-005	<6.8e-005	<0.000102
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-MW-5																			
		02/23/2016	04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/13/2017	01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/19/2021	05/31/2022
Appendix III																					
Boron	mg/L	0.163	0.361	0.169	0.0858 J	0.0778 J	0.077 J	--	0.0602 J	0.0442 J	0.0411 J	--	0.0334 J	0.0265 J	<0.03	<0.03	<0.03	0.521	0.511	0.243	0.939
Calcium	mg/L	2.42	4.65	3.1	2.19	1.97	1.73	--	1.74	1.66	1.61	--	1.44	1.3	1.25	1.33	1.26	3.24	7	2.75	8.6
Chloride	mg/L	3.86	4.46	3.74	3.5	3.5	--	2.8	3.9	3.4	3.9	--	3.5	3.7	3.69	3.49	3.45	6.23	5.89	4.81	7.83
Fluoride	mg/L	0.02 J	0.04 J	0.066 J	0.046 J	0.034 J	--	<0.032	<0.032	0.1	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.76	4.75	4.77	4.82	4.82	4.8	4.86	4.89	4.86	4.89	4.86	4.87	4.92	4.8	4.44	4.83	4.77	4.61	4.79	4.61
Sulfate	mg/L	12.5	28.6	18.7	13.8	12.2	--	8.6	8	8.6	7.6	--	6	5.5	6.5	6.55	6.34	15.1	38.2	12.3	48.7
TDS	mg/L	38	62	51.3	38	28.7	34	--	37.3	36.7	37.3	--	30.7	--	26	34.7	32	55.3	85.3	48.7	104
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000866 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000501	0.000199 J	0.000527
Barium	mg/L	0.109	0.135	0.0892	0.083	0.0859	0.0779	--	0.0799	0.0788	--	0.0746	0.085	0.072	0.0684	0.0728	0.0718	0.181	0.106	0.0998	0.224
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	0.000575 J	<0.000406	0.000731 J
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	8.67e-005 J	0.000137 J	0.000122 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	0.00221 J	0.00232	0.00268	0.00266
Cobalt	mg/L	<0.002	0.00278 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	0.00227 J	0.0046	0.00217	0.00606
Combined Radium 226+228	pCi/L	1 U	1 U	1.03	0.696	0.966	0.724	--	0.587	0.591	--	0.566 U	0.401	0.611	0.391 U	0.954	0.525	0.845	0.465 U	0.719 U	2.31
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	9.94e-005 J	0.00026	0.00014 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	0.000362 J
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	0.000105 J	<0.000102
Selenium	mg/L	0.00572 J	0.0141	0.00698 J	0.0042 J	0.00386 J	0.00247 J	--	0.00284 J	0.003 J	--	0.00201 J	<0.002	<0.002	<0.002	<0.002	<0.002	0.0052 J	0.0163	0.0029	0.0217
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-MW-6																			
		02/23/2016	04/18/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/12/2017	01/22/2018	05/01/2018	11/26/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/18/2021	05/31/2022
Appendix III																					
Boron	mg/L	0.638	0.908	0.733	0.448	0.249	0.121	--	0.0695 J	0.0509 J	0.0709 J	--	0.0365 J	0.0836 J	0.556	0.186	0.304	0.362	0.876	0.987	0.685
Calcium	mg/L	18.3	23.2	19.7	10.9	8.74	7.89	--	5.81	4.72	4.39	--	4.66	3.41	10	4.94	7.56	6.38	13.5	9.06	9.88
Chloride	mg/L	6.06	6.13	5.52	5.35	4.55	--	3.5	4.8	3.6	4.3	--	3.8	3.5	6.26	4.13	4.95	5.71	7.77	10	7.22
Fluoride	mg/L	0.06 J	0.138 J	0.148 J	0.072 J	0.049 J	--	<0.032	0.1	0.1	<0.032	<0.032	<0.032	<0.032	0.0591 J	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	6.59	6.21	5.97	5.99	5.94	5.92	5.74	5.82	5.77	5.64	5.66	5.71	5.58	5.21	5.4	5.51	5.15	5.46	5.28	4.98
Sulfate	mg/L	36.5	80.2	0.498 J	27.8	22.5	--	15	11	10	7.5	--	8.5	7.4	32.7	15.9	21.8	17.7	37.1	24.7	38.6
TDS	mg/L	128	166	131	86.7	67.3	60.7	--	50	47.3	42.7	--	44	38	77.3	50.7	58	59.3	98.7	77.3	93.3
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	0.000633 J	<0.0006	<0.0006	0.000926 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000821	0.000317	0.000475
Barium	mg/L	0.237	0.263	0.206	0.165	0.148	0.123	--	0.098	0.0844	--	0.0593	0.081	0.0657	0.17	0.0985	0.142	0.0981	0.159	0.146	0.205
Beryllium	mg/L	<0.0006	0.000681 J	<0.0006	<0.0006	<0.0006	<0.0006	--	0.000704 J	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000763 J	<0.000406	0.000674 J
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.000154 J	0.000111 J	0.000242
Chromium	mg/L	0.00209 J	0.00324 J	0.0031 J	0.00227 J	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00223 J	<0.002	0.00273 J	0.00237 J	0.0034	0.00335	0.00412
Cobalt	mg/L	<0.002	0.00338 J	0.00361 J	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	0.00301 J	<0.002	0.0031 J	0.00296 J	0.0054	0.00552	0.00732
Combined Radium 226+228	pCi/L	1.2261 U	1.92151 U	1.47	1.91	0.966	1.01	--	1.41	0.476	--	0.814 U	0.931	0.815	2.08	0.836	1.54	0.402 U	2.47	2.03	2.22
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	0.000213	0.000112 J	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	0.000345 J
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	<0.000102
Selenium	mg/L	0.0266	0.0529	0.0382	0.014	0.0105	0.0104	--	0.00778 J	0.00576 J	--	0.00287 J	0.00367 J	0.00286 J	0.0089 J	0.00472 J	0.00658 J	0.0052 J	0.0123	0.00672	0.0132
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-MW-7																			
		02/23/2016	04/18/2016	06/06/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017	09/12/2017	01/22/2018	05/01/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/18/2021	5/31/2022
Appendix III																					
Boron	mg/L	0.0314 J	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.4	1.2	1.48	1.13	1.45	1.95	--	0.908	1.29	1.44	--	0.695	0.798	0.973	0.929	1.32	1.12	1.63	1.56	1.3
Chloride	mg/L	4.08	4.14	4.09	4.6	8.32	--	5.6	4.8	6.3	8.5	--	4	4.3	4.63	5.02	10.5	8.74	17.2	16.7	14.7
Fluoride	mg/L	0.02 J	0.018 J	0.051 J	0.039 J	0.025 J	--	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	5.12	5.11	5.14	5.06	5.01	4.74	5.04	5.08	5.07	5.03	5.06	4.89	5.05	4.83	5.04	4.91	4.39	4.84	5.05	4.56
Sulfate	mg/L	3.82	3.48	3.76	3.62	2.58	--	3.3 J	2.5 J	3.1 J	3 J	--	1.6 J	1.9 J	4.86	4.6	4.29	3.59	3.58	2.5	3.4
TDS	mg/L	--	--	32.7	25.3	28	45.3	--	26.7	28	35.3	--	30.7	30.7	33.3	30.7	39.3	42	52.7	42.7	41.3
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00119 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000177 J	0.000308	0.000238
Barium	mg/L	0.0546	0.0421	0.0457	0.0469	0.0611	0.0801	--	0.0388	0.0437	--	0.0399	0.04	0.0427	0.0524	0.0492	0.0788	0.0615	0.1	0.0859	0.0856
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	0.000464 J	<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	0.00139	0.00131	0.00127
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	0.00192	0.00164	0.00162
Combined Radium 226+228	pCi/L	1 U	1 U	0.427	0.869	0.927	0.649	--	0.804	0.136 U	--	0.726 U	0.63	0.109 U	-0.428 U	0.43 U	0.939	1.13	1.09	0.69 U	0.99
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	7.98e-005 J	7.62e-005 J	7.97e-005 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	<6.8e-005	<6.8e-005	<0.000102
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	0.000581 J
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-MW-8																			
		02/23/2016	04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017	01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/19/2021	5/31/2022
Appendix III																					
Boron	mg/L	<0.02	<0.02	<0.02	<0.02	0.0207 J	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	0.0303 J	<0.03
Calcium	mg/L	0.618	0.505	0.587	0.495 J	0.503	0.554	--	0.548	0.545	0.723	--	0.751	0.743	0.789	0.882	0.841	0.981	1.02	1.01	0.863
Chloride	mg/L	4.47	4.74	4.52	4.71	4.73	--	4.9	5.7	4.1	4.9	--	4.1	4.9	4.43	4.32	4.38	4.61	5.25	5.34	5.38
Fluoride	mg/L	0.02 J	0.019 J	0.053 J	0.038 J	0.028 J	--	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.92	5.16	5.11	5.14	5.09	5.01	5.07	5.13	5.05	5.06	5.02	4.99	5.06	4.92	4.86	4.92	4.35	4.83	4.77	4.03
Sulfate	mg/L	3.33	3.78	4.44	4.29	4.27	--	3.6 J	2.9 J	2.9 J	3.2 J	--	2.6 J	2.8 J	4.46	4.96	4.84	4.56	4.7	4.2	5.11
TDS	mg/L	30	27.3	32	--	28	26	--	25.3	--	31.3	--	30.7	35.3	28.7	37.3	30	38	40	33.3	30.7
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000885 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	0.000164 J	<8.1e-005
Barium	mg/L	0.0352	0.0251	0.0299	0.0287	0.0309	0.0282	--	0.0309	0.0287	--	0.0351	0.0398	0.0388	0.0412	0.0453	0.0444	0.0494	0.0488	0.0452	0.0477
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	0.00201 J	<0.002	0.00205 J	0.00218 J	<0.002	--	0.00208 J	0.0022 J	--	0.00258 J	0.00202 J	<0.002	0.00209 J	0.00223 J	0.00275 J	0.00224 J	0.00218	0.00246	0.00226
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	0.000437	0.000495	0.000482
Combined Radium 226+228	pCi/L	1 U	1 U	0.69	0.687	0.62	0.266 U	--	0.853	0.477	--	0.411 U	0.718	0.691	0.311 U	0.969	0.397 U	0.0249 U	1.29	1.54	1.37
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	0.00031 J	<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	<6.8e-005	7.96e-005 J	<0.000102
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	0.000523 J	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-MW-9																			
		02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017	01/23/2018	05/01/2018	11/26/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021	10/19/2021	5/31/2022
Appendix III																					
Boron	mg/L	0.0297 J	0.0269 J	0.0271 J	0.0272 J	<0.02	0.0269 J	--	0.027 J	<0.02	0.032 J	--	0.0302 J	0.139	0.141	0.116	0.112	0.0873 J	0.0834 J	0.0966 J	0.0933 J
Calcium	mg/L	1.15	1.04	1.22	1.18	1.12	1.23	--	1.2	1.17	1.25	--	1.25	1.61	1.8	1.85	1.67	1.79	1.82	1.75	1.62
Chloride	mg/L	4.1	3.11	3.72	4.8	4.71	--	5.3	6.6	5.2	6.5	--	5.7	11	8.56	8.48	6.87	7.94	8.77	6.33	4.29
Fluoride	mg/L	0.05 J	0.039 J	0.085 J	0.078 J	0.071 J	--	0.05 J	0.06 J	0.07 J	0.08 J	0.07 J	0.07 J	0.07 J	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.56	4.62	4.64	4.58	4.58	4.44	4.57	4.64	4.58	4.54	4.53	4.46	4.5	4.45	4.49	4.45	4.46	4.43	4.34	4.49
Sulfate	mg/L	7.71	7.85	7.76	8.22	9.29	--	7.1	5.7	7.1	7.3	--	7.1	7.3	12.3	11.6	12.5	10.7	12.5	12.6	13
TDS	mg/L	25.3	28	34.7	26.7	32	32.7	--	30.7	--	37.3	--	39.3	48	60	46.7	37.3	50.7	50.7	48	39.3
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000859 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000173 J	<6.8e-005	<8.1e-005
Barium	mg/L	0.121	0.0926	0.0998	0.106	0.106	0.111	--	0.111	0.107	--	0.122	0.139	0.152	0.155	0.16	0.165	0.17	0.184	0.151	0.142
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	0.000783 J	0.000812 J	0.00104
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	0.00177	0.00156	0.00131
Combined Radium 226+228	pCi/L	1 U	3.81872	0.941	0.98	1.06	1.15	--	1.31	1.12	--	1.16 U	0.961	1.72	2.2	2	1.88	2.11	1.94	3.15	2.05
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	0.000288	0.000253	0.000232
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	<6.8e-005	<6.8e-005	<0.000102
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	0.00128	0.00118	0.00204
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-MW-10																			
		02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017	01/23/2018	05/01/2018	11/26/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021	10/19/2021	5/31/2022
Appendix III																					
Boron	mg/L	0.0294 J	0.0257 J	0.0257 J	0.0317 J	<0.02	0.0243 J	--	0.0259 J	<0.02	0.0394 J	--	0.0338 J	0.0484 J	0.0669 J	0.0671 J	0.0442 J	0.0509 J	0.0423 J	0.0444 J	0.0493 J
Calcium	mg/L	0.795	0.761	0.799	0.788	0.788	0.755	--	0.763	0.706	0.873	--	1.05	0.922	1.07	1.32	0.98	1.1	1.06	0.977	1.09
Chloride	mg/L	3.57	3.12	3.14	2.93	2.96	--	4.4	3.7	3.3	5.1	--	4	3.8	4.34	4.34	3.89	4.11	3.94	3.79	3.35
Fluoride	mg/L	0.05 J	0.05 J	0.098 J	0.089 J	0.092 J	--	0.06 J	0.07 J	0.07 J	0.08 J	0.08 J	0.09 J	0.08 J	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.67	4.79	4.73	4.68	4.75	4.65	4.68	4.75	4.7	4.71	4.6	4.61	4.65	4.54	4.6	4.55	4.58	4.4	4.48	4.56
Sulfate	mg/L	9.29	9.92	10	11.1	11.7	--	9	7.9	8.4	8.7	--	10	8.3	11.1	13.2	11.1	9.28	11	10.1	11.4
TDS	mg/L	37.3	34	38.7	34	31.3	--	--	29.3	36	35.3	--	32	31.3	43.3	36	33.3	39.3	42.7	39.3	40.7
Appendix IV																					
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000838 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000129 J	0.000128 J	8.93e-005 J
Barium	mg/L	0.134	0.114	0.118	0.126	0.127	0.1	--	0.114	0.0991	--	0.119	0.132	0.112	0.125	0.136	0.122	0.125	0.121	0.115	0.136
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	0.000695 J	0.000793 J	0.000893 J
Cobalt	mg/L	0.00247 J	0.00241 J	0.00247 J	0.00251 J	0.00272 J	<0.002	--	0.00205 J	0.00201 J	--	0.00229 J	0.00216 J	0.00205 J	0.00261 J	0.00262 J	0.00238 J	0.00241 J	0.00237	0.00238	0.0027
Combined Radium 226+228	pCi/L	1 U	1 U	1.03	1.05	1.36	0.847	--	0.649	1.4	--	1.36 U	1.03	1.04	0.548 U	2.19	1.01	1.32	2.02	1.6	2.27
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	0.000113 J	9.96e-005 J	0.000105 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
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	<6.8e-005	<6.8e-005	<0.000102
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	0.000778 J	0.000832 J	0.00125
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

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

Southern Company

Appendix A. Historical Analytical Data
Plant Barry Gypsum Pond

Analyte	Units	BY-GSA-PZ-11				
		03/31/2020	09/08/2020	05/12/2021	10/19/2021	5/31/2022
Appendix III						
Boron	mg/L	0.0864 J	0.0638 J	0.0742 J	0.0551 J	0.0564 J
Calcium	mg/L	0.663	0.724	0.861	0.941	1.16
Chloride	mg/L	4.13	3.96	4.89	5.02	7.97
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.91	4.12	4.93	4.8	4.74
Sulfate	mg/L	3.16	3.61	4.62	4.92	4.75
TDS	mg/L	--	29.3	40	37.3	35.3
Appendix IV						
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	0.000111 J	0.000126 J	<8.1e-005
Barium	mg/L	0.0499	0.05	0.0597	0.0599	0.0821
Beryllium	mg/L	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00249 J	0.00253 J	0.00281	0.00336	0.00292
Cobalt	mg/L	<0.002	<0.002	0.00101	0.00117	0.00143
Combined Radium 226+228	pCi/L	0.968	0.468 U	0.515 U	0.87 U	1.13
Lead	mg/L	<0.001	<0.001	0.000208	0.000138 J	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102
Selenium	mg/L	<0.002	<0.002	0.00111	0.00114	0.0012
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

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

Appendix B

Southern Company

Appendix B. Historical Groundwater Elevations Summary
Plant Barry Gypsum Storage Area

Well Name	Top of Casing Elevation	Groundwater Elevation (ft. MSL)										
		2/22/2016	4/18/2016	6/7/2016	8/29/2016	10/17/2016	1/30/2017	3/20/2017	5/1/2017	6/5/2017	9/12/2017	11/15/2017
BY-GSA-MW-1	20.66	7.73	7.92	5.81	5.13	4.59	6.94	5.42	5.51	6.64	5.45	5.43
BY-GSA-MW-2	19.95	7.55	7.77	5.75	5.04	4.50	6.82	5.30	5.48	6.45	5.30	5.28
BY-GSA-MW-3	23.24	8.19	8.45	6.52	5.78	5.19	7.55	6.04	6.16	7.39	6.16	6.08
BY-GSA-MW-4	29.12	7.83	8.13	6.21	5.47	4.93	7.25	5.71	5.98	6.87	5.74	5.69
BY-GSA-MW-5	34.31	7.08	7.41	5.28	4.61	4.09	6.52	4.78	5.17	5.77	8.59	4.67
BY-GSA-MW-6	21.68	6.49	6.96	4.63	4.02	3.47	6.14	4.08	4.73	5.06	3.87	3.93
BY-GSA-MW-7	20.59	6.57	6.97	4.63	4.02	3.47	6.16	4.10	4.64	5.08	3.80	3.92
BY-GSA-MW-8	34.36	6.97	7.21	4.98	4.26	3.79	6.36	4.52	4.90	5.48	4.22	4.36
BY-GSA-MW-9	13.32	6.68	7.02	4.81	4.14	3.65	6.23	4.37	4.75	5.48	4.17	4.25
BY-GSA-MW-10	17.61	7.08	7.40	5.22	4.55	4.05	6.57	4.82	5.04	5.96	4.69	4.76
BY-GSA-PZ-11	25.92	6.20	6.71	4.30	3.63	3.00	5.95	3.71	4.42	4.74	NM	3.46
BY-GSA-PZ-12	17.43	6.68	7.08	4.74	4.05	3.51	6.29	4.19	4.71	5.20	3.82	3.97

Notes:

1. ft. MSL - feet mean sea level
2. -- Not Measured

Southern Company

Appendix B. Historical Groundwater Elevations Summary
Plant Barry Gypsum Storage Area

Well Name	Top of Casing Elevation	Groundwater Elevation (ft. MSL)										
		1/21/2018	4/30/2018	8/27/2018	11/26/2018	5/28/2019	10/2/2019	3/30/2020	9/8/2020	5/24/2021	10/18/2021	5/23/2022
BY-GSA-MW-1	20.66	4.75	6.83	5.22	5.84	6.60	4.78	8.38	5.31	7.13	6.64	6.17
BY-GSA-MW-2	19.95	4.68	6.66	5.06	5.73	6.32	4.71	8.05	5.16	6.80	6.40	6.03
BY-GSA-MW-3	23.24	5.46	7.19	5.76	6.40	7.02	5.37	8.54	5.83	7.49	7.19	6.75
BY-GSA-MW-4	29.12	5.18	6.99	5.47	6.13	6.57	5.16	8.20	5.53	6.99	6.68	6.37
BY-GSA-MW-5	34.31	4.18	6.42	4.61	5.30	5.62	4.35	7.44	4.55	5.95	5.44	6.12
BY-GSA-MW-6	21.68	3.56	6.02	4.07	4.72	4.74	3.85	6.91	4.00	5.17	4.78	5.74
BY-GSA-MW-7	20.59	3.47	6.00	3.99	4.77	4.84	3.84	6.86	3.91	5.19	4.76	5.72
BY-GSA-MW-8	34.36	3.82	6.28	4.34	5.15	5.36	4.07	7.21	4.31	5.75	5.28	6.02
BY-GSA-MW-9	13.32	3.72	6.10	4.26	5.07	5.29	3.91	7.17	4.34	5.80	5.32	6.01
BY-GSA-MW-10	17.61	4.15	6.41	4.69	5.41	5.85	4.31	7.48	4.63	6.24	5.76	6.25
BY-GSA-PZ-11	25.92	3.15	5.96	3.79	4.46	4.41	3.68	6.70	3.54	4.70	4.22	5.51
BY-GSA-PZ-12	17.43	3.52	6.18	4.12	4.97	4.98	3.87	6.98	4.00	5.33	4.84	5.83

Notes:

1. ft. MSL - feet mean sea level
2. -- Not Measured

Appendix C

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

Field Case Narrative

Plant Barry Pooled Upgradient

2022 Compliance Event 1

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

Field readings for pH were qualified for wells MW-1, MW-2, MW-3 and MW-4 due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

- E – Estimated reported value exceeded calibration range

Rainy conditions were present when pumping and sampling well MW-4.

Field quality control procedures were performed as follows:

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

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

Field Case Narrative

Alabama Power

Lab & Field SERVICES

Plant Barry Gypsum Pond

2022 Compliance Event 1

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

The first three pH field readings for well MW-8 were qualified due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

E – Estimated reported value exceeded calibration range

Dusty conditions were present when pumping and sampling well MW-8.

Field quality control procedures were performed as follows:

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

Water Level Record/Well Inspection
Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Submit

Date	05/23/2022	Weather	Cloudy 75
Location	Barry Pooled Upgradient		
Collector	TJ Daugherty		

			In Good Condition					
Well	Time	Water Level (ft)	Locks	Bollards	Pad	Protective Casing	Name Plate	Comment
MW-1	1430	14.49	✔	✔	✔	✔	✔	
MW-2	1426	13.92	✔	✔	✔	✔	✔	
MW-3	1420	16.49	✔	✔	✔	✔	✔	
MW-4	1415	22.75	✔	✔	✔	✔	✔	
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Water Level Record/Well Inspection
Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Date		Weather	
Location			
Collector			

			In Good Condition					
Well	Time	Water Level (ft)	Locks	Bollards	Pad	Protective Casing	Name Plate	Comment

Water Level Record/Well Inspection
Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Submit

Date	05/31/2022	Weather	PC 85
Location	Barry Gypsum		
Collector	TJ Daugherty		

			In Good Condition					
Well	Time	Water Level (ft)	Locks	Bollards	Pad	Protective Casing	Name Plate	Comment
MW-5	1338	28.19	✔	✔	✔	✔	✔	
MW-6	1455	15.94	✔	✔	✔	✔	✔	
MW-7	1538	14.87	✔	✔	✔	✔	✔	
MW-8	1541	28.34	✔	✔	✔	✔	✔	
MW-9	1545	7.31						
MW-10	1550	11.36						
PZ-11	1530	20.41						
MW-12	1543	11.60						

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-1	5/31/2022 13:01	Conductivity	58.03	uS/cm
MW-1	5/31/2022 13:01	DO	0.44	mg/L
MW-1	5/31/2022 13:01	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:01	Oxidation Reduction Potention	181.73	mv
MW-1	5/31/2022 13:01	pH	4.26	SU
MW-1	5/31/2022 13:01	Temperature	20.95	C
MW-1	5/31/2022 13:01	Turbidity	2.43	NTU
MW-1	5/31/2022 13:06	Conductivity	57.52	uS/cm
MW-1	5/31/2022 13:06	DO	0.38	mg/L
MW-1	5/31/2022 13:06	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:06	Oxidation Reduction Potention	186.18	mv
MW-1	5/31/2022 13:06	pH	4.12	SU
MW-1	5/31/2022 13:06	Temperature	20.84	C
MW-1	5/31/2022 13:06	Turbidity	1.33	NTU
MW-1	5/31/2022 13:11	Conductivity	56.99	uS/cm
MW-1	5/31/2022 13:11	DO	0.37	mg/L
MW-1	5/31/2022 13:11	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:11	Oxidation Reduction Potention	195.4	mv
MW-1	5/31/2022 13:11	pH	3.86	SU
MW-1	5/31/2022 13:11	Temperature	20.98	C
MW-1	5/31/2022 13:11	Turbidity	1.27	NTU
MW-1	5/31/2022 13:16	Conductivity	57	uS/cm
MW-1	5/31/2022 13:16	DO	0.35	mg/L
MW-1	5/31/2022 13:16	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:16	Oxidation Reduction Potention	193.75	mv
MW-1	5/31/2022 13:16	pH	3.88	SU
MW-1	5/31/2022 13:16	Temperature	20.79	C
MW-1	5/31/2022 13:16	Turbidity	1.64	NTU
MW-1	5/31/2022 13:21	Conductivity	57.06	uS/cm
MW-1	5/31/2022 13:21	DO	0.34	mg/L
MW-1	5/31/2022 13:21	Depth to Water Detail	13.92	ft
MW-1	5/31/2022 13:21	Oxidation Reduction Potention	193.96	mv
MW-1	5/31/2022 13:21	pH	3.89	SU
MW-1	5/31/2022 13:21	Sulfide	0	mg/L
MW-1	5/31/2022 13:21	Temperature	20.77	C
MW-1	5/31/2022 13:21	Turbidity	2	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-2	5/31/2022 14:00	Conductivity	51.15	uS/cm
MW-2	5/31/2022 14:00	DO	6.6	mg/L
MW-2	5/31/2022 14:00	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:00	Oxidation Reduction Potention	183.27	mv
MW-2	5/31/2022 14:00	pH	3.95	SU
MW-2	5/31/2022 14:00	Temperature	20.02	C
MW-2	5/31/2022 14:00	Turbidity	9.16	NTU
MW-2	5/31/2022 14:05	Conductivity	50.67	uS/cm
MW-2	5/31/2022 14:05	DO	6.45	mg/L
MW-2	5/31/2022 14:05	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:05	Oxidation Reduction Potention	202.11	mv
MW-2	5/31/2022 14:05	pH	3.67	SU
MW-2	5/31/2022 14:05	Temperature	20.01	C
MW-2	5/31/2022 14:05	Turbidity	11.13	NTU
MW-2	5/31/2022 14:10	Conductivity	50.35	uS/cm
MW-2	5/31/2022 14:10	DO	6.29	mg/L
MW-2	5/31/2022 14:10	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:10	Oxidation Reduction Potention	215.94	mv
MW-2	5/31/2022 14:10	pH	3.48	SU
MW-2	5/31/2022 14:10	Temperature	20.16	C
MW-2	5/31/2022 14:10	Turbidity	6.79	NTU
MW-2	5/31/2022 14:15	Conductivity	50.27	uS/cm
MW-2	5/31/2022 14:15	DO	6.29	mg/L
MW-2	5/31/2022 14:15	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:15	Oxidation Reduction Potention	222.65	mv
MW-2	5/31/2022 14:15	pH	3.39	SU
MW-2	5/31/2022 14:15	Temperature	20.24	C
MW-2	5/31/2022 14:15	Turbidity	6.82	NTU
MW-2	5/31/2022 14:20	Conductivity	50.14	uS/cm
MW-2	5/31/2022 14:20	DO	6.28	mg/L
MW-2	5/31/2022 14:20	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:20	Oxidation Reduction Potention	225.28	mv
MW-2	5/31/2022 14:20	pH	3.32	SU
MW-2	5/31/2022 14:20	Temperature	20.23	C
MW-2	5/31/2022 14:20	Turbidity	5.15	NTU
MW-2	5/31/2022 14:25	Conductivity	50.04	uS/cm
MW-2	5/31/2022 14:25	DO	6.27	mg/L
MW-2	5/31/2022 14:25	Depth to Water Detail	13.35	ft
MW-2	5/31/2022 14:25	Oxidation Reduction Potention	226.41	mv
MW-2	5/31/2022 14:25	pH	3.31	SU
MW-2	5/31/2022 14:25	Sulfide	0	mg/L
MW-2	5/31/2022 14:25	Temperature	20	C
MW-2	5/31/2022 14:25	Turbidity	4.82	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-3	5/31/2022 15:04	Conductivity	49.81	uS/cm
MW-3	5/31/2022 15:04	DO	5.89	mg/L
MW-3	5/31/2022 15:04	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:04	Oxidation Reduction Potention	180.26	mv
MW-3	5/31/2022 15:04	pH	4.04	SU
MW-3	5/31/2022 15:04	Temperature	20.62	C
MW-3	5/31/2022 15:04	Turbidity	5.91	NTU
MW-3	5/31/2022 15:09	Conductivity	49.95	uS/cm
MW-3	5/31/2022 15:09	DO	5.79	mg/L
MW-3	5/31/2022 15:09	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:09	Oxidation Reduction Potention	206.7	mv
MW-3	5/31/2022 15:09	pH	3.67	SU
MW-3	5/31/2022 15:09	Temperature	20.24	C
MW-3	5/31/2022 15:09	Turbidity	5.43	NTU
MW-3	5/31/2022 15:14	Conductivity	49.71	uS/cm
MW-3	5/31/2022 15:14	DO	5.84	mg/L
MW-3	5/31/2022 15:14	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:14	Oxidation Reduction Potention	216.27	mv
MW-3	5/31/2022 15:14	pH	3.6	SU
MW-3	5/31/2022 15:14	Temperature	20.11	C
MW-3	5/31/2022 15:14	Turbidity	3.35	NTU
MW-3	5/31/2022 15:19	Conductivity	49.57	uS/cm
MW-3	5/31/2022 15:19	DO	5.82	mg/L
MW-3	5/31/2022 15:19	Depth to Water Detail	15.93	ft
MW-3	5/31/2022 15:19	Oxidation Reduction Potention	223.76	mv
MW-3	5/31/2022 15:19	pH	3.54	SU
MW-3	5/31/2022 15:19	Sulfide	0	mg/L
MW-3	5/31/2022 15:19	Temperature	20.09	C
MW-3	5/31/2022 15:19	Turbidity	3.1	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
MW-4	5/31/2022 16:01	Conductivity	53.79	uS/cm
MW-4	5/31/2022 16:01	DO	6.49	mg/L
MW-4	5/31/2022 16:01	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:01	Oxidation Reduction Potention	189.08	mv
MW-4	5/31/2022 16:01	pH	4.38	SU
MW-4	5/31/2022 16:01	Temperature	23.14	C
MW-4	5/31/2022 16:01	Turbidity	10.27	NTU
MW-4	5/31/2022 16:06	Conductivity	53.31	uS/cm
MW-4	5/31/2022 16:06	DO	6.48	mg/L
MW-4	5/31/2022 16:06	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:06	Oxidation Reduction Potention	200.15	mv
MW-4	5/31/2022 16:06	pH	4.24	SU
MW-4	5/31/2022 16:06	Temperature	22.79	C
MW-4	5/31/2022 16:06	Turbidity	7.81	NTU
MW-4	5/31/2022 16:11	Conductivity	52.86	uS/cm
MW-4	5/31/2022 16:11	DO	6.5	mg/L
MW-4	5/31/2022 16:11	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:11	Oxidation Reduction Potention	209.5	mv
MW-4	5/31/2022 16:11	pH	4.11	SU
MW-4	5/31/2022 16:11	Temperature	22.47	C
MW-4	5/31/2022 16:11	Turbidity	7.58	NTU
MW-4	5/31/2022 16:16	Conductivity	53.05	uS/cm
MW-4	5/31/2022 16:16	DO	6.49	mg/L
MW-4	5/31/2022 16:16	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:16	Oxidation Reduction Potention	216.73	mv
MW-4	5/31/2022 16:16	pH	4.03	SU
MW-4	5/31/2022 16:16	Temperature	22.41	C
MW-4	5/31/2022 16:16	Turbidity	7.68	NTU
MW-4	5/31/2022 16:21	Conductivity	52.45	uS/cm
MW-4	5/31/2022 16:21	DO	6.48	mg/L
MW-4	5/31/2022 16:21	Depth to Water Detail	22.08	ft
MW-4	5/31/2022 16:21	Oxidation Reduction Potention	223.18	mv
MW-4	5/31/2022 16:21	pH	3.97	SU
MW-4	5/31/2022 16:21	Sulfide	0	mg/L
MW-4	5/31/2022 16:21	Temperature	22.67	C
MW-4	5/31/2022 16:21	Turbidity	8.23	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-8	6/1/2022 12:58	Conductivity	44.57	uS/cm
BY-GSA-MW-8	6/1/2022 12:58	DO	0.88	mg/L
BY-GSA-MW-8	6/1/2022 12:58	Depth to Water Detail	28.46	ft
BY-GSA-MW-8	6/1/2022 12:58	Oxidation Reduction Potention	398.58	mv
BY-GSA-MW-8	6/1/2022 12:58	pH	3.92	SU
BY-GSA-MW-8	6/1/2022 12:58	Temperature	22.18	C
BY-GSA-MW-8	6/1/2022 12:58	Turbidity	5.36	NTU
BY-GSA-MW-8	6/1/2022 13:03	Conductivity	44.68	uS/cm
BY-GSA-MW-8	6/1/2022 13:03	DO	0.87	mg/L
BY-GSA-MW-8	6/1/2022 13:03	Depth to Water Detail	28.46	ft
BY-GSA-MW-8	6/1/2022 13:03	Oxidation Reduction Potention	401.98	mv
BY-GSA-MW-8	6/1/2022 13:03	pH	3.98	SU
BY-GSA-MW-8	6/1/2022 13:03	Temperature	22.38	C
BY-GSA-MW-8	6/1/2022 13:03	Turbidity	4.01	NTU
BY-GSA-MW-8	6/1/2022 13:08	Conductivity	44.9	uS/cm
BY-GSA-MW-8	6/1/2022 13:08	DO	0.87	mg/L
BY-GSA-MW-8	6/1/2022 13:08	Depth to Water Detail	28.46	ft
BY-GSA-MW-8	6/1/2022 13:08	Oxidation Reduction Potention	404.01	mv
BY-GSA-MW-8	6/1/2022 13:08	pH	4.03	SU
BY-GSA-MW-8	6/1/2022 13:08	Sulfide	0	mg/L
BY-GSA-MW-8	6/1/2022 13:08	Temperature	22.17	C
BY-GSA-MW-8	6/1/2022 13:08	Turbidity	2.9	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-9	6/1/2022 8:27	Conductivity	65.01	uS/cm
BY-GSA-MW-9	6/1/2022 8:27	DO	3.03	mg/L
BY-GSA-MW-9	6/1/2022 8:27	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:27	Oxidation Reduction Potention	250.82	mv
BY-GSA-MW-9	6/1/2022 8:27	pH	4.52	SU
BY-GSA-MW-9	6/1/2022 8:27	Temperature	21.29	C
BY-GSA-MW-9	6/1/2022 8:27	Turbidity	10.4	NTU
BY-GSA-MW-9	6/1/2022 8:32	Conductivity	64.78	uS/cm
BY-GSA-MW-9	6/1/2022 8:32	DO	3.03	mg/L
BY-GSA-MW-9	6/1/2022 8:32	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:32	Oxidation Reduction Potention	272.37	mv
BY-GSA-MW-9	6/1/2022 8:32	pH	4.52	SU
BY-GSA-MW-9	6/1/2022 8:32	Temperature	21.32	C
BY-GSA-MW-9	6/1/2022 8:32	Turbidity	5.36	NTU
BY-GSA-MW-9	6/1/2022 8:37	Conductivity	64.76	uS/cm
BY-GSA-MW-9	6/1/2022 8:37	DO	3.01	mg/L
BY-GSA-MW-9	6/1/2022 8:37	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:37	Oxidation Reduction Potention	296.92	mv
BY-GSA-MW-9	6/1/2022 8:37	pH	4.41	SU
BY-GSA-MW-9	6/1/2022 8:37	Temperature	21.32	C
BY-GSA-MW-9	6/1/2022 8:37	Turbidity	3.73	NTU
BY-GSA-MW-9	6/1/2022 8:42	Conductivity	64.76	uS/cm
BY-GSA-MW-9	6/1/2022 8:42	DO	3.03	mg/L
BY-GSA-MW-9	6/1/2022 8:42	Depth to Water Detail	7.49	ft
BY-GSA-MW-9	6/1/2022 8:42	Oxidation Reduction Potention	308.06	mv
BY-GSA-MW-9	6/1/2022 8:42	pH	4.49	SU
BY-GSA-MW-9	6/1/2022 8:42	Sulfide	0	mg/L
BY-GSA-MW-9	6/1/2022 8:42	Temperature	21.31	C
BY-GSA-MW-9	6/1/2022 8:42	Turbidity	4.02	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-10	6/1/2022 9:24	Conductivity	58.09	uS/cm
BY-GSA-MW-10	6/1/2022 9:24	DO	4.42	mg/L
BY-GSA-MW-10	6/1/2022 9:24	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:24	Oxidation Reduction Potention	312.89	mv
BY-GSA-MW-10	6/1/2022 9:24	pH	4.46	SU
BY-GSA-MW-10	6/1/2022 9:24	Temperature	20.72	C
BY-GSA-MW-10	6/1/2022 9:24	Turbidity	11.99	NTU
BY-GSA-MW-10	6/1/2022 9:29	Conductivity	58.53	uS/cm
BY-GSA-MW-10	6/1/2022 9:29	DO	4.47	mg/L
BY-GSA-MW-10	6/1/2022 9:29	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:29	Oxidation Reduction Potention	327.08	mv
BY-GSA-MW-10	6/1/2022 9:29	pH	4.47	SU
BY-GSA-MW-10	6/1/2022 9:29	Temperature	20.7	C
BY-GSA-MW-10	6/1/2022 9:29	Turbidity	9.04	NTU
BY-GSA-MW-10	6/1/2022 9:34	Conductivity	58.66	uS/cm
BY-GSA-MW-10	6/1/2022 9:34	DO	4.48	mg/L
BY-GSA-MW-10	6/1/2022 9:34	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:34	Oxidation Reduction Potention	336.26	mv
BY-GSA-MW-10	6/1/2022 9:34	pH	4.52	SU
BY-GSA-MW-10	6/1/2022 9:34	Temperature	20.66	C
BY-GSA-MW-10	6/1/2022 9:34	Turbidity	7.07	NTU
BY-GSA-MW-10	6/1/2022 9:39	Conductivity	58.72	uS/cm
BY-GSA-MW-10	6/1/2022 9:39	DO	4.47	mg/L
BY-GSA-MW-10	6/1/2022 9:39	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:39	Oxidation Reduction Potention	344.6	mv
BY-GSA-MW-10	6/1/2022 9:39	pH	4.55	SU
BY-GSA-MW-10	6/1/2022 9:39	Temperature	20.66	C
BY-GSA-MW-10	6/1/2022 9:39	Turbidity	6.49	NTU
BY-GSA-MW-10	6/1/2022 9:44	Conductivity	58.57	uS/cm
BY-GSA-MW-10	6/1/2022 9:44	DO	4.43	mg/L
BY-GSA-MW-10	6/1/2022 9:44	Depth to Water Detail	11.42	ft
BY-GSA-MW-10	6/1/2022 9:44	Oxidation Reduction Potention	351.55	mv
BY-GSA-MW-10	6/1/2022 9:44	pH	4.56	SU
BY-GSA-MW-10	6/1/2022 9:44	Sulfide	0	mg/L
BY-GSA-MW-10	6/1/2022 9:44	Temperature	20.8	C
BY-GSA-MW-10	6/1/2022 9:44	Turbidity	4.6	NTU

FIELD PARAMETERS
Plant Barry Gypsum Pond

WELL ID	TIME OF READING	DESCRIPTION	VALUE	UNIT
BY-GSA-PZ-11	6/1/2022 10:30	Conductivity	48.37	uS/cm
BY-GSA-PZ-11	6/1/2022 10:30	DO	5.04	mg/L
BY-GSA-PZ-11	6/1/2022 10:30	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:30	Oxidation Reduction Potention	334.18	mv
BY-GSA-PZ-11	6/1/2022 10:30	pH	4.43	SU
BY-GSA-PZ-11	6/1/2022 10:30	Temperature	23.04	C
BY-GSA-PZ-11	6/1/2022 10:30	Turbidity	12.4	NTU
BY-GSA-PZ-11	6/1/2022 10:35	Conductivity	49.46	uS/cm
BY-GSA-PZ-11	6/1/2022 10:35	DO	5.05	mg/L
BY-GSA-PZ-11	6/1/2022 10:35	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:35	Oxidation Reduction Potention	346.94	mv
BY-GSA-PZ-11	6/1/2022 10:35	pH	4.43	SU
BY-GSA-PZ-11	6/1/2022 10:35	Temperature	22.71	C
BY-GSA-PZ-11	6/1/2022 10:35	Turbidity	8	NTU
BY-GSA-PZ-11	6/1/2022 10:40	Conductivity	49.52	uS/cm
BY-GSA-PZ-11	6/1/2022 10:40	DO	5.06	mg/L
BY-GSA-PZ-11	6/1/2022 10:40	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:40	Oxidation Reduction Potention	348.16	mv
BY-GSA-PZ-11	6/1/2022 10:40	pH	4.58	SU
BY-GSA-PZ-11	6/1/2022 10:40	Temperature	22.72	C
BY-GSA-PZ-11	6/1/2022 10:40	Turbidity	5	NTU
BY-GSA-PZ-11	6/1/2022 10:45	Conductivity	49.51	uS/cm
BY-GSA-PZ-11	6/1/2022 10:45	DO	5.04	mg/L
BY-GSA-PZ-11	6/1/2022 10:45	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:45	Oxidation Reduction Potention	349.35	mv
BY-GSA-PZ-11	6/1/2022 10:45	pH	4.7	SU
BY-GSA-PZ-11	6/1/2022 10:45	Temperature	22.86	C
BY-GSA-PZ-11	6/1/2022 10:45	Turbidity	4.41	NTU
BY-GSA-PZ-11	6/1/2022 10:50	Conductivity	49.53	uS/cm
BY-GSA-PZ-11	6/1/2022 10:50	DO	5.02	mg/L
BY-GSA-PZ-11	6/1/2022 10:50	Depth to Water Detail	20.72	ft
BY-GSA-PZ-11	6/1/2022 10:50	Oxidation Reduction Potention	352.58	mv
BY-GSA-PZ-11	6/1/2022 10:50	pH	4.74	SU
BY-GSA-PZ-11	6/1/2022 10:50	Sulfide	0	mg/L
BY-GSA-PZ-11	6/1/2022 10:50	Temperature	22.95	C
BY-GSA-PZ-11	6/1/2022 10:50	Turbidity	3.83	NTU

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

Analytical Report

Alabama Power

Sample Group : WMWBARPU_1372

Project/Site : Barry Pooled Upgradient
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Dyer

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

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

June 16, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on June 02, 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: Brooke Caton

Digitally signed by Brooke Caton
Date: 2022.06.16 09:10:32 -05'00'

Supervision: T Durant Maske

Digitally signed by T Durant Maske
DN: cn=T Durant Maske gn=T Durant Maske c=US United States l=US United States e=tdmaske@southernco.com
Reason: I am approving this document
Location:
Date: 2022-06-16 10:06-05:00

REPORT OF LABORATORY ANALYSIS

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

Case Narrative

Alabama Power

Total Metals ICP

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728204	WMWBARPU_1372
BC10403	728204	WMWBARPU_1372
BC10404	728204	WMWBARPU_1372
BC10405	728204	WMWBARPU_1372
BC10406	728204	WMWBARPU_1372
BC10407	728204	WMWBARPU_1372
BC10408	728204	WMWBARPU_1372

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 sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC10402	Iron	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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728219	WMWBARPU_1372
BC10403	728219	WMWBARPU_1372
BC10405	728219	WMWBARPU_1372
BC10406	728219	WMWBARPU_1372
BC10407	728219	WMWBARPU_1372

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

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

Sample ID	Analyte	Dilution Factor
BC10402	Iron	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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728449	WMWBARPU_1372
BC10403	728449	WMWBARPU_1372
BC10404	728449	WMWBARPU_1372
BC10405	728449	WMWBARPU_1372
BC10406	728449	WMWBARPU_1372
BC10407	728449	WMWBARPU_1372
BC10408	728449	WMWBARPU_1372

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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728465	WMWBARPU_1372
BC10403	728465	WMWBARPU_1372
BC10405	728465	WMWBARPU_1372
BC10406	728465	WMWBARPU_1372
BC10407	728465	WMWBARPU_1372

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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728373	WMWBARPU_1372
BC10403	728373	WMWBARPU_1372
BC10404	728373	WMWBARPU_1372
BC10405	728373	WMWBARPU_1372
BC10406	728373	WMWBARPU_1372
BC10407	728373	WMWBARPU_1372
BC10408	728373	WMWBARPU_1372

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.

Revision 5

- 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.

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

Case Narrative

Alabama Power

Total Dissolved Solids

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728167	WMWBARPU_1372
BC10403	728167	WMWBARPU_1372
BC10404	728167	WMWBARPU_1372
BC10405	728167	WMWBARPU_1372
BC10406	728167	WMWBARPU_1372
BC10407	728167	WMWBARPU_1372
BC10408	728167	WMWBARPU_1372

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:
  - BC10404
  - BC10408

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

Case Narrative

Alkalinity

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728840,728841	WMWBARPU_1372
BC10403	728840,728841	WMWBARPU_1372
BC10405	728840,728841	WMWBARPU_1372
BC10406	728840,728841	WMWBARPU_1372
BC10407	728840,728841	WMWBARPU_1372

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, except for the following:
    - BC10407 Precision is invalid due to sample concentration.

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

Case Narrative

Alabama Power

Anions

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728178,728649,728620	WMWBARPU_1372
BC10403	728178,728649,728620	WMWBARPU_1372
BC10404	728178,728649,728620	WMWBARPU_1372
BC10405	728178,728649,728620	WMWBARPU_1372
BC10406	728178,728649,728620	WMWBARPU_1372
BC10407	728178,728649,728620	WMWBARPU_1372
BC10408	728178,728649,728620	WMWBARPU_1372

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) was analyzed, and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below 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 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 dilution.

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

Case Narrative

Alabama Power

Nitrate-Nitrite

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728305	WMWBARPU_1372
BC10403	728305	WMWBARPU_1372
BC10404	728305	WMWBARPU_1372
BC10405	728305	WMWBARPU_1372
BC10406	728305	WMWBARPU_1372
BC10407	728305	WMWBARPU_1372
BC10408	728305	WMWBARPU_1372

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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728186	WMWBARPU_1372
BC10403	728186	WMWBARPU_1372
BC10404	728186	WMWBARPU_1372
BC10405	728186	WMWBARPU_1372
BC10406	728186	WMWBARPU_1372
BC10407	728186	WMWBARPU_1372
BC10408	728186	WMWBARPU_1372

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.

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

Certificate Of Analysis

Alabama Power

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 5/31/22 13:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10402

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 09:50		1.015	0.0567	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 09:50		1.015	1.14	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:16		10.15	4.80	mg/L	0.08120	0.406	
* Lithium, Total	6/6/22 09:22	6/8/22 09:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:50		1.015	2.23	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:50		1	6.74	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:50		1.015	3.15	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 09:50		1.015	2.05	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	0.0564	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	1.13	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:32		10.15	4.08	mg/L	0.08120	0.406	
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	2.25	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:12		1	6.83	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	3.19	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:12		1.015	2.09	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.0898	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.000237	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.100	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.000334	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.00487	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.0000838	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.154	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:37		1.015	0.444	mg/L	0.169505	0.5075	J

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 5/31/22 13:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10402

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.0534	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.000168	mg/L	0.000081	0.000203	J
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.101	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.000231	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.00484	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.155	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	0.458	mg/L	0.169505	0.5075	J
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:38		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 12:38	6/6/22 12:38		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	8.56	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	32.0	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	8.56	mg/L			
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 01:15	6/8/22 01:15		1	1.58	mg/L	1.00	2	J

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 5/31/22 13:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10402

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 12:56	6/6/22 12:56		1	1.93	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:27	6/8/22 13:27		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:10	6/7/22 16:10		1	12.8	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	5/31/22 13:21	5/31/22 13:21			57.06	uS/cm			FA
pH	5/31/22 13:21	5/31/22 13:21			3.89	SU			FA
Temperature	5/31/22 13:21	5/31/22 13:21			20.77	C			FA
Turbidity	5/31/22 13:21	5/31/22 13:21			2	NTU			FA
Sulfide	5/31/22 13:21	5/31/22 13:21			0	mg/L			FA

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

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 13:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Aluminum, Dissolved	mg/L	0.0000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.0000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	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
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARPU
Sample Date: 5/31/22 13:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 13:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

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

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

Alabama Power

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 5/31/22 13:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BC10402

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 5/31/22 14:28
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10403

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 09:53		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 09:53		1.015	1.24	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 09:53		1.015	0.0704	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 09:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:53		1.015	2.48	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:53		1	8.39	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:53		1.015	3.92	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 09:53		1.015	2.25	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	1.26	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	2.48	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:15		1	8.26	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	3.86	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:15		1.015	2.25	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.127	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.0000879	mg/L	0.000081	0.000203	J
* Barium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.153	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.000413	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.00120	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.00194	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.0000781	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.0241	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.905	mg/L	0.169505	0.5075	

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 5/31/22 14:28
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10403

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:40		1.015	0.000633	mg/L	0.000508	0.001015	J
* Thallium, Total	6/6/22 07:13	6/6/22 14:40		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.0788	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.153	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.000413	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.000998	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.00187	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.0235	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.885	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	0.000575	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:42		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 12:39	6/6/22 12:39		1	1.84	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	0.44	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	30.7	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 01:35	6/8/22 01:35		1	1.14	mg/L	1.00	2	J

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 5/31/22 14:28
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10403

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 12:57	6/6/22 12:57		1	2.17	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:28	6/8/22 13:28		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:11	6/7/22 16:11		1	8.09	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	5/31/22 14:25	5/31/22 14:25			50.04	uS/cm			FA
pH	5/31/22 14:25	5/31/22 14:25			3.31	SU			FA
Temperature	5/31/22 14:25	5/31/22 14:25			20.00	C			FA
Turbidity	5/31/22 14:25	5/31/22 14:25			4.82	NTU			FA
Sulfide	5/31/22 14:25	5/31/22 14:25			0	mg/L			FA

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

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 14:28
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Aluminum, Dissolved	mg/L	0.0000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.0000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	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
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 14:28
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARPU
Sample Date: 5/31/22 14:28
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 14:28
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BC10403

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB
Collected: 5/31/22 14:45
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10404

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:56		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 09:56		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:44		1.015	0.000273	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:44		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 12:41	6/6/22 12:41		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 6/16/2022
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: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB
Collected: 5/31/22 14:45
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10404

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	6/8/22 01:56	6/8/22 01:56		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 12:58	6/6/22 12:58		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:29	6/8/22 13:29		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:13	6/7/22 16:13		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Reported: 6/16/2022
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: WMWBARPUFB
Sample Date: 5/31/22 14:45
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC10404

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0

Comments:

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARPUFB
Sample Date: 5/31/22 14:45
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC10404

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWBARPUFB
Sample Date: 5/31/22 14:45
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BC10404

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10405

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 09:59		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 09:59		1.015	1.95	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 09:59		1.015	0.0270	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 09:59		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 09:59		1.015	2.05	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 09:59		1	8.60	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 09:59		1.015	4.02	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 09:59		1.015	3.11	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	1.94	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	2.01	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:17		1	8.52	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	3.98	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:17		1.015	3.11	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.0446	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.0992	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.00139	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.00149	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.0196	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:47		1.015	0.987	mg/L	0.169505	0.5075	

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10405

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.0232	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.101	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.00129	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.00154	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.0198	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	0.961	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:46		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 12:42	6/6/22 12:42		1	2.11	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	1.24	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	35.3	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	1.24	mg/L			
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 02:12	6/8/22 02:12		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10405

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 12:59	6/6/22 12:59		1	3.39	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:30	6/8/22 13:30		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:14	6/7/22 16:14		1	7.02	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	5/31/22 15:19	5/31/22 15:19			49.57	uS/cm			FA
pH	5/31/22 15:19	5/31/22 15:19			3.54	SU			FA
Temperature	5/31/22 15:19	5/31/22 15:19			20.09	C			FA
Turbidity	5/31/22 15:19	5/31/22 15:19			3.1	NTU			FA
Sulfide	5/31/22 15:19	5/31/22 15:19			0	mg/L			FA

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

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Aluminum, Dissolved	mg/L	0.0000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.0000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	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
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BC10405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Pooled Upgradient - MW-3 Dup

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10406

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:02		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:02		1.015	1.97	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:02		1.015	0.0242	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:02		1.015	2.04	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:02		1	8.54	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:02		1.015	3.99	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:02		1.015	3.11	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	1.94	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	2.04	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:20		1	8.52	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	3.98	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:20		1.015	3.14	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.0429	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.101	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.00134	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.00152	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.0198	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:51		1.015	0.974	mg/L	0.169505	0.5075	

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-3 Dup

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10406

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:51		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.0237	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.0993	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.00122	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.00158	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	0.0199	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	1.01	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:49		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 12:43	6/6/22 12:43		1	2.01	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	1.20	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	31.3	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	1.20	mg/L			
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 02:28	6/8/22 02:28		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-3 Dup

Location Code: WMWBARPU
Collected: 5/31/22 15:22
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10406

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:01	6/6/22 13:01		1	3.41	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:32	6/8/22 13:32		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:15	6/7/22 16:15		1	7.18	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	5/31/22 15:19	5/31/22 15:19			49.57	uS/cm			FA
pH	5/31/22 15:19	5/31/22 15:19			3.54	SU			FA
Temperature	5/31/22 15:19	5/31/22 15:19			20.09	C			FA
Turbidity	5/31/22 15:19	5/31/22 15:19			3.1	NTU			FA
Sulfide	5/31/22 15:19	5/31/22 15:19			0	mg/L			FA

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

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Aluminum, Dissolved	mg/L	0.0000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.0000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	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
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 15:22
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-3 Dup

Laboratory ID Number: BC10406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 5/31/22 16:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10407

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:05		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:05		1.015	2.02	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:05		1.015	0.222	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:05		1.015	2.20	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:05		1	8.82	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:05		1.015	4.12	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:05		1.015	2.69	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	2.03	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	2.14	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:23		1	8.56	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	4.00	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:23		1.015	2.65	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.233	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.000203	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.129	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.00156	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.00150	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.000173	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:13	6/6/22 14:55		1.015	0.0173	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:55		1.015	1.05	mg/L	0.169505	0.5075	

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 5/31/22 16:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10407

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.0212	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.129	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.00104	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.00138	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	0.0165	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	1.01	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:31	6/6/22 12:53		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 12:44	6/6/22 12:44		1	2.55	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: ALH***								
Alkalinity, Total as CaCO3	6/10/22 13:35	6/10/22 14:52		1	0.44	mg/L		0.1	PA
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	36.7	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: ALH***								
Bicarbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/10/22 13:35	6/10/22 14:52		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 02:51	6/8/22 02:51		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/16/2022
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: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 5/31/22 16:24
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10407

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:02	6/6/22 13:02		1	3.31	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:33	6/8/22 13:33		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:16	6/7/22 16:16		1	7.94	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	5/31/22 16:21	5/31/22 16:21			52.45	uS/cm			FA
pH	5/31/22 16:21	5/31/22 16:21			3.97	SU			FA
Temperature	5/31/22 16:21	5/31/22 16:21			22.67	C			FA
Turbidity	5/31/22 16:21	5/31/22 16:21			8.23	NTU			FA
Sulfide	5/31/22 16:21	5/31/22 16:21			0	mg/L			FA

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

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 16:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Aluminum, Dissolved	mg/L	0.0000977	0.010	0.100	0.124	0.128	0.104	0.0850 to 0.115	103	70.0 to 130	3.17	20.0
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10407	Antimony, Dissolved	mg/L	0.000304	0.00100	0.100	0.0937	0.0957	0.0923	0.0850 to 0.115	93.7	70.0 to 130	2.11	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10407	Arsenic, Dissolved	mg/L	0.0000034	0.000176	0.100	0.100	0.102	0.104	0.0850 to 0.115	100	70.0 to 130	1.98	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10407	Barium, Dissolved	mg/L	0.0000071	0.00100	0.100	0.229	0.234	0.103	0.0850 to 0.115	100	70.0 to 130	2.16	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10407	Beryllium, Dissolved	mg/L	0.0000130	0.000880	0.100	0.100	0.101	0.104	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10407	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.02	1.02	1.01	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10407	Cadmium, Dissolved	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
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10407	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	6.91	6.88	4.88	4.25 to 5.75	97.6	70.0 to 130	0.435	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10407	Chromium, Dissolved	mg/L	0.0000008	0.000440	0.100	0.102	0.104	0.102	0.0850 to 0.115	101	70.0 to 130	1.94	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10407	Cobalt, Dissolved	mg/L	-0.0000006	0.000147	0.100	0.106	0.107	0.106	0.0850 to 0.115	105	70.0 to 130	0.939	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10407	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.201	0.200	0.200	0.170 to 0.230	100	70.0 to 130	0.499	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 16:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10407	Lead, Dissolved	mg/L	0.0000066	0.000147	0.100	0.108	0.104	0.109	0.0850 to 0.115	108	70.0 to 130	3.77	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10407	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.201	0.202	0.201	0.170 to 0.230	100	70.0 to 130	0.496	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10407	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	7.28	7.22	5.16	4.25 to 5.75	103	70.0 to 130	0.828	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10407	Manganese, Dissolved	mg/L	0.0000037	0.0002	0.100	0.118	0.120	0.103	0.0850 to 0.115	102	70.0 to 130	1.68	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10407	Molybdenum, Dissolved	mg/L	0.0000017	0.0002	0.100	0.0978	0.100	0.0987	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10407	Potassium, Dissolved	mg/L	0.00152	0.367	10.0	11.0	11.1	9.97	8.50 to 11.5	99.9	70.0 to 130	0.905	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10407	Selenium, Dissolved	mg/L	-0.0000214	0.00100	0.100	0.100	0.101	0.101	0.0850 to 0.115	100	70.0 to 130	0.995	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10407	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	5.02	5.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10407	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	7.73	7.76	5.13	4.25 to 5.75	102	70.0 to 130	0.387	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10407	Thallium, Dissolved	mg/L	0.0000086	0.000147	0.100	0.109	0.105	0.110	0.0850 to 0.115	109	70.0 to 130	3.74	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 16:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

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

Reported: 6/16/2022
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: WMWBARPU
Sample Date: 5/31/22 16:24
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BC10407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10407	Alkalinity, Total as CaCO3	mg/L					0.680	52.5	45.0 to 55.0			42.9	10.0
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 5/31/22 16:45
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10408

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:07		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 10:07		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:13	6/6/22 14:58		1.015	0.000269	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:13	6/6/22 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 13:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 12:45	6/6/22 12:45		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 6/16/2022
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: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 5/31/22 16:45
Customer ID:
Submittal Date: 6/2/22 08:21

Laboratory ID Number: BC10408

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	6/8/22 03:13	6/8/22 03:13		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:03	6/6/22 13:03		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:34	6/8/22 13:34		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:17	6/7/22 16:17		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Reported: 6/16/2022
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: WMWBARPUEB
Sample Date: 5/31/22 16:45
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC10408

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Aluminum, Total	mg/L	0.000555	0.010	0.100	0.110	0.106	0.106	0.0850 to 0.115	110	70.0 to 130	3.70	20.0
BC10408	Antimony, Total	mg/L	0.000382	0.00100	0.100	0.0896	0.0901	0.0945	0.0850 to 0.115	89.6	70.0 to 130	0.556	20.0
BC10408	Arsenic, Total	mg/L	0.0000173	0.000176	0.100	0.102	0.101	0.102	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10408	Barium, Total	mg/L	0.0000192	0.00100	0.100	0.0994	0.101	0.103	0.0850 to 0.115	99.4	70.0 to 130	1.60	20.0
BC10408	Beryllium, Total	mg/L	0.0000106	0.000880	0.100	0.103	0.0970	0.0977	0.0850 to 0.115	103	70.0 to 130	6.00	20.0
BC10408	Boron, Total	mg/L	0.000098	0.0650	1.00	0.990	0.990	1.01	0.850 to 1.15	99.0	70.0 to 130	0.00	20.0
BC10408	Cadmium, Total	mg/L	0.0000036	0.000147	0.100	0.102	0.0997	0.102	0.0850 to 0.115	102	70.0 to 130	2.28	20.0
BC10408	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.87	4.79	4.93	4.25 to 5.75	97.4	70.0 to 130	1.66	20.0
BC10408	Chloride	mg/L	-0.0327	1.00	10.0	10.6	10.6	9.58	9.00 to 11.0	106	80.0 to 120	0.00	20.0
BC10408	Chromium, Total	mg/L	0.0000337	0.000440	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BC10408	Cobalt, Total	mg/L	0.0000018	0.000147	0.100	0.106	0.106	0.107	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10408	Fluoride	mg/L	0.00175	0.125	2.50	2.53	2.56	2.54	2.25 to 2.75	101	80.0 to 120	1.18	20.0
BC10408	Iron, Total	mg/L	0.000083	0.0176	0.2	0.199	0.199	0.200	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BC10408	Lead, Total	mg/L	0.0000100	0.000147	0.100	0.105	0.102	0.103	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10408	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.203	0.203	0.204	0.170 to 0.230	102	70.0 to 130	0.00	20.0
BC10408	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.11	5.07	5.18	4.25 to 5.75	102	70.0 to 130	0.786	20.0
BC10408	Manganese, Total	mg/L	0.0000112	0.0002	0.100	0.104	0.102	0.104	0.0850 to 0.115	104	70.0 to 130	1.94	20.0
BC10408	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00425	0.00421	0.00400	0.00340 to 0.00460	106	70.0 to 130	0.946	20.0
BC10408	Molybdenum, Total	mg/L	-0.0000073	0.0002	0.100	0.0990	0.0981	0.101	0.0850 to 0.115	99.0	70.0 to 130	0.913	20.0
BC10408	Potassium, Total	mg/L	0.0102	0.367	10.0	10.2	10.0	10.2	8.50 to 11.5	102	70.0 to 130	1.98	20.0
BC10408	Selenium, Total	mg/L	0.0000056	0.00100	0.100	0.103	0.101	0.104	0.0850 to 0.115	103	70.0 to 130	1.96	20.0
BC10408	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.01	1.01	1.02	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BC10408	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.16	5.17	5.17	4.25 to 5.75	103	70.0 to 130	0.194	20.0

Comments:

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARPUEB
Sample Date: 5/31/22 16:45
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC10408

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Sulfate	mg/L	-0.0817	2.0	20.0	20.1	20.4	19.0	18.0 to 22.0	100	80.0 to 120	1.48	20.0
BC10408	Thallium, Total	mg/L	0.0000118	0.000147	0.100	0.106	0.105	0.108	0.0850 to 0.115	106	70.0 to 130	0.948	20.0
BC10408	Total Organic Carbon	mg/L	0.160	1.00	10.0	10.0	10.2	25.1		100	80.0 to 120	1.98	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWBARPUEB
Sample Date: 5/31/22 16:45
Customer ID:
Delivery Date: 6/2/22 08:21

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BC10408

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10408	Nitrogen, Nitrate/Nitrite	mg/L as N	0.01	0.200	2.00	2.12	0.073	2.01	1.80 to 2.20	106	90.0 to 110	0.00	15.0
BC10407	Solids, Dissolved	mg/L	0.0000	25.0			36.0	50.0	40.0 to 60.0			1.93	10.0

Comments:

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

Definitions

Alabama Power

Project Number: WMWBARPU_1372

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.
PA	Precision 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	Barry 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: Samples relinquished to GSC Building 8 shipping lab on 06/01/22 @ 1554.
N/N, TOC pH < 2 SU. BC 06/02/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	05/31/2022	13:24	7	Groundwater		BC10402
MW-2	05/31/2022	14:28	7	Groundwater		BC10403
FB-1	05/31/2022	14:45	5	Field Blank		BC10404
MW-3	05/31/2022	15:22	7	Groundwater		BC10405
MW-3 dup	05/31/2022	15:22	7	Sample Duplicate		BC10406
MW-4	05/31/2022	16:24	7	Groundwater		BC10407
EB-1	05/31/2022	16:45	5	Equipment Blank		BC10408

Relinquished By	Received By	Date/Time
Dallas Gentry	Brooke Caton Digitally signed by Brooke Caton Date: 2022.06.02 08:18:41 -05'00'	06/02/2022 08:18

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2	☑
Turbidity ID	3901-20010-2-2	Cooler Temp	1.9 °C
Sample Event	1372	Thermometer ID	7044-38281-2-1
		pH Strip ID	10275-59506-10-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	Dallas Gentry	Requested By	Greg Dyer
		Location	Barry Pooled Upgradient

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

Comments: Radium MS/MSD collected at MW-1. Samples relinquished to GSC Building 8 shipping lab on 06/01/22 @ 1555.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	05/31/2022	13:24	3	Groundwater		BC10409
MW-2	05/31/2022	14:28	1	Groundwater		BC10410
FB-1	05/31/2022	14:45	1	Field Blank		BC10411
MW-3	05/31/2022	15:22	1	Groundwater		BC10412
MW-3 dup	05/31/2022	15:22	1	Sample Duplicate		BC10413
MW-4	05/31/2022	16:24	1	Groundwater		BC10414
EB-1	05/31/2022	16:45	1	Equipment Blank		BC10415

Relinquished By	Received By	Date/Time
	Brooke Caton Digitally signed by Brooke Caton Date: 2022.06.02 08:19:17 -05'00'	06/02/2022 08:19

SmarTroll ID	7586-41443-5-2	All metals and radiological bottles have pH < 2	☑
Turbidity ID	3901-20010-2-2	Cooler Temp	N/A
Sample Event	1372	Thermometer ID	N/A
		pH Strip ID	10275-59506-10-2

Bottles/Pre-Preserved Bottles are provided by the GTL

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

Analytical Report

Alabama Power

Sample Group : WMWBARG_1373

Project/Site : Barry Gypsum
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Dyer

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

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

June 17, 2022

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on June 02, 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: Brooke Caton

Digitally signed by Brooke Caton
Date: 2022.06.17 14:58:35 -05'00'

Supervision: T Durant Maske

Digitally signed by T Durant Maske
DN: cn=T Durant Maske gn=T Durant Maske c=US United States l=US United States e=tdmaske@southernco.com
Reason: I am approving this document
Location:
Date: 2022-06-17 15:03-05:00

REPORT OF LABORATORY ANALYSIS

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

Case Narrative

Alabama Power

Total Metals ICP

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728204	WMWBARPU_1372
BC10403	728204	WMWBARPU_1372
BC10404	728204	WMWBARPU_1372
BC10405	728204	WMWBARPU_1372
BC10406	728204	WMWBARPU_1372
BC10407	728204	WMWBARPU_1372
BC10408	728204	WMWBARPU_1372

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 sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BC10402	Iron	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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728219	WMWBARPU_1372
BC10403	728219	WMWBARPU_1372
BC10405	728219	WMWBARPU_1372
BC10406	728219	WMWBARPU_1372
BC10407	728219	WMWBARPU_1372

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

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

Sample ID	Analyte	Dilution Factor
BC10402	Iron	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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728449	WMWBARPU_1372
BC10403	728449	WMWBARPU_1372
BC10404	728449	WMWBARPU_1372
BC10405	728449	WMWBARPU_1372
BC10406	728449	WMWBARPU_1372
BC10407	728449	WMWBARPU_1372
BC10408	728449	WMWBARPU_1372

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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728465	WMWBARPU_1372
BC10403	728465	WMWBARPU_1372
BC10405	728465	WMWBARPU_1372
BC10406	728465	WMWBARPU_1372
BC10407	728465	WMWBARPU_1372

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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728373	WMWBARPU_1372
BC10403	728373	WMWBARPU_1372
BC10404	728373	WMWBARPU_1372
BC10405	728373	WMWBARPU_1372
BC10406	728373	WMWBARPU_1372
BC10407	728373	WMWBARPU_1372
BC10408	728373	WMWBARPU_1372

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.

Revision 5

- 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.

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

Case Narrative

Alabama Power

Total Dissolved Solids

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728167	WMWBARPU_1372
BC10403	728167	WMWBARPU_1372
BC10404	728167	WMWBARPU_1372
BC10405	728167	WMWBARPU_1372
BC10406	728167	WMWBARPU_1372
BC10407	728167	WMWBARPU_1372
BC10408	728167	WMWBARPU_1372

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:
  - BC10404
  - BC10408

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

Case Narrative

Alkalinity

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728840,728841	WMWBARPU_1372
BC10403	728840,728841	WMWBARPU_1372
BC10405	728840,728841	WMWBARPU_1372
BC10406	728840,728841	WMWBARPU_1372
BC10407	728840,728841	WMWBARPU_1372

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, except for the following:
    - BC10407 Precision is invalid due to sample concentration.

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

Case Narrative

Alabama Power

Anions

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728178,728649,728620	WMWBARPU_1372
BC10403	728178,728649,728620	WMWBARPU_1372
BC10404	728178,728649,728620	WMWBARPU_1372
BC10405	728178,728649,728620	WMWBARPU_1372
BC10406	728178,728649,728620	WMWBARPU_1372
BC10407	728178,728649,728620	WMWBARPU_1372
BC10408	728178,728649,728620	WMWBARPU_1372

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) was analyzed, and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below 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 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 dilution.

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

Case Narrative

Alabama Power

Nitrate-Nitrite

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728305	WMWBARPU_1372
BC10403	728305	WMWBARPU_1372
BC10404	728305	WMWBARPU_1372
BC10405	728305	WMWBARPU_1372
BC10406	728305	WMWBARPU_1372
BC10407	728305	WMWBARPU_1372
BC10408	728305	WMWBARPU_1372

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

Barry Pooled Upgradient

WMWBARPU_1372

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
BC10402	728186	WMWBARPU_1372
BC10403	728186	WMWBARPU_1372
BC10404	728186	WMWBARPU_1372
BC10405	728186	WMWBARPU_1372
BC10406	728186	WMWBARPU_1372
BC10407	728186	WMWBARPU_1372
BC10408	728186	WMWBARPU_1372

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.

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 5/31/22 13:38
Customer ID:
Submittal Date: 6/2/22 12:13

Laboratory ID Number: BC10423

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:25		1.015	0.939	mg/L	0.030000	0.1015	
* Calcium, Total	6/6/22 09:22	6/8/22 10:25		1.015	8.52	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:25		1.015	0.0362	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:25		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:25		1.015	8.35	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:25		1	10.6	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:25		1.015	4.97	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:25		1.015	4.40	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	0.931	mg/L	0.030000	0.1015	
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	8.60	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	8.19	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:41		1	10.5	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	4.92	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:41		1.015	4.32	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.263	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000527	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.226	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000713	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000122	mg/L	0.000068	0.000203	J
* Chromium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.00281	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.00606	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.000182	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.0615	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:27		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:27		1.015	1.83	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 5/31/22 13:38
Customer ID:
Submittal Date: 6/2/22 12:13

Laboratory ID Number: BC10423

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:27		1.015	0.0217	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.200	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000284	mg/L	0.000081	0.000203	
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.224	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000731	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000162	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.00266	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.00604	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.000140	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.0611	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	1.82	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	0.0215	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:43		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:09		1	0.000362	mg/L	0.0003	0.0005	J
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 13:49	6/6/22 13:49		1	1.30	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	104	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 07:00	6/8/22 07:00		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 5/31/22 13:38
Customer ID:
Submittal Date: 6/2/22 12:13

Laboratory ID Number: BC10423

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:19	6/6/22 13:19		1	7.83	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:47	6/8/22 13:47		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:44	6/7/22 16:44		3	48.7	mg/L	1.8	6	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	5/31/22 13:34	5/31/22 13:34			168.62	uS/cm			FA
pH	5/31/22 13:34	5/31/22 13:34			4.61	SU			FA
Temperature	5/31/22 13:34	5/31/22 13:34			23.83	C			FA
Turbidity	5/31/22 13:34	5/31/22 13:34			4.65	NTU			FA
Sulfide	5/31/22 13:34	5/31/22 13:34			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 5/31/22 13:38
Customer ID:
Delivery Date: 6/2/22 12:13

Description: Barry Gypsum - MW-5

Laboratory ID Number: BC10423

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:28		1.015	0.685	mg/L	0.030000	0.1015	
* Calcium, Total	6/6/22 09:22	6/8/22 10:28		1.015	9.98	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:28		1.015	0.0318	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:28		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:28		1.015	6.24	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:28		1	10.7	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:28		1.015	4.99	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:28		1.015	3.98	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	0.673	mg/L	0.030000	0.1015	
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	9.81	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	6.04	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:44		1	10.5	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	4.90	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:44		1.015	4.06	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.289	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000515	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.202	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000660	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000235	mg/L	0.000068	0.000203	
* Chromium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.00412	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.00724	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.000111	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.0748	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:30		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:30		1.015	1.68	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:30		1.015	0.0132	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.0818	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.191	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.000604	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.000223	mg/L	0.000068	0.000203	
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.00366	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.00631	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.000117	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.0628	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	1.65	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	0.0124	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:47		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:11		1	0.000345	mg/L	0.0003	0.0005	J
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 13:51	6/6/22 13:51		1	1.22	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	7.08	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	85.3	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	7.08	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 07:23	6/8/22 07:23		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10424

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:20	6/6/22 13:20		1	7.22	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:48	6/8/22 13:48		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:31	6/7/22 16:31		1	38.6	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	5/31/22 14:51	5/31/22 14:51			143.33	uS/cm			FA
pH	5/31/22 14:51	5/31/22 14:51			4.98	SU			FA
Temperature	5/31/22 14:51	5/31/22 14:51			22.95	C			FA
Turbidity	5/31/22 14:51	5/31/22 14:51			3.42	NTU			FA
Sulfide	5/31/22 14:51	5/31/22 14:51			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6

Laboratory ID Number: BC10424

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-6 Dup

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:31		1.015	0.683	mg/L	0.030000	0.1015	
* Calcium, Total	6/6/22 09:22	6/8/22 10:31		1.015	9.88	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:31		1.015	0.0331	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:31		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:31		1.015	6.23	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:31		1	10.6	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:31		1.015	4.94	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:31		1.015	4.00	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	0.670	mg/L	0.030000	0.1015	
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	9.78	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	6.06	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:47		1	10.3	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	4.83	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:47		1.015	3.92	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.282	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000475	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.205	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000674	mg/L	0.000406	0.001015	J
* Cadmium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000242	mg/L	0.000068	0.000203	
* Chromium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.00400	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.00732	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.000112	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.0762	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:34		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:34		1.015	1.64	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-6 Dup

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:34		1.015	0.0131	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.111	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.000475	mg/L	0.000081	0.000203	
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.203	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.000622	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.000222	mg/L	0.000068	0.000203	
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.00380	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.00652	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.0656	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	1.67	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	0.0132	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:50		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:13		1	0.000338	mg/L	0.0003	0.0005	J
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 13:53	6/6/22 13:53		1	1.20	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	5.60	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	93.3	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	5.60	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 07:39	6/8/22 07:39		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-6 Dup

Location Code: WMWBARG
Collected: 5/31/22 14:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10425

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:21	6/6/22 13:21		1	7.10	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:50	6/8/22 13:50		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:32	6/7/22 16:32		1	37.9	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	5/31/22 14:51	5/31/22 14:51			143.33	uS/cm			FA
pH	5/31/22 14:51	5/31/22 14:51			4.98	SU			FA
Temperature	5/31/22 14:51	5/31/22 14:51			22.95	C			FA
Turbidity	5/31/22 14:51	5/31/22 14:51			3.42	NTU			FA
Sulfide	5/31/22 14:51	5/31/22 14:51			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 5/31/22 14:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: BC10425

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 6/1/22 08:45
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***					***Preparation Method: EPA 1638***			
* Boron, Total	6/6/22 09:22	6/8/22 10:34		1.015	0.0933	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 10:34		1.015	1.55	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:34		1.015	0.0286	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:34		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:34		1.015	2.59	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:34		1	8.37	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:34		1.015	3.91	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:34		1.015	2.84	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	0.0929	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	1.62	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	2.59	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:50		1	8.20	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	3.83	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:50		1.015	2.73	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***					***Preparation Method: EPA 1638***			
* Antimony, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.225	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.000105	mg/L	0.000081	0.000203	J
* Barium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.142	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.00104	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.00131	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.000232	mg/L	0.000068	0.000203	
* Manganese, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.0427	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.971	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 6/1/22 08:45
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:37		1.015	0.00204	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:37		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.146	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.140	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.000886	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.00129	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.000237	mg/L	0.000068	0.000203	
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.0436	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.976	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	0.00189	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 13:54	6/6/22 13:54		1	0.314	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	0.32	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	39.3	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 07:55	6/8/22 07:55		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 6/1/22 08:45
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10426

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:23	6/6/22 13:23		1	4.29	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:51	6/8/22 13:51		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:33	6/7/22 16:33		1	13.0	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	6/1/22 08:42	6/1/22 08:42			64.76	uS/cm			FA
pH	6/1/22 08:42	6/1/22 08:42			4.49	SU			FA
Temperature	6/1/22 08:42	6/1/22 08:42			21.31	C			FA
Turbidity	6/1/22 08:42	6/1/22 08:42			4.02	NTU			FA
Sulfide	6/1/22 08:42	6/1/22 08:42			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 08:45
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 6/1/22 08:45
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 08:45
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 08:45
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-9

Laboratory ID Number: BC10426

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 6/1/22 09:47
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:37		1.015	0.0493	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 10:37		1.015	1.04	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:37		1.015	0.0987	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:37		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:37		1.015	2.58	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:37		1	7.90	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:37		1.015	3.69	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:37		1.015	2.62	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	0.0492	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	1.09	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	2.61	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:53		1	7.64	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	3.57	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:53		1.015	2.52	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.280	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.0000893	mg/L	0.000081	0.000203	J
* Barium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.136	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.000893	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.00270	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.000102	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.0400	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.827	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 6/1/22 09:47
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:41		1.015	0.00125	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:41		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.128	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.135	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.000591	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.00283	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.000105	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.0413	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.811	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	0.00110	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 13:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 13:56	6/6/22 13:56		1	0.643	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	0.36	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	40.7	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 08:12	6/8/22 08:12		1	1.17	mg/L	1.00	2	J

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 6/1/22 09:47
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10427

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:24	6/6/22 13:24		1	3.35	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:52	6/8/22 13:52		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:34	6/7/22 16:34		1	11.4	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	6/1/22 09:44	6/1/22 09:44			58.57	uS/cm			FA
pH	6/1/22 09:44	6/1/22 09:44			4.56	SU			FA
Temperature	6/1/22 09:44	6/1/22 09:44			20.80	C			FA
Turbidity	6/1/22 09:44	6/1/22 09:44			4.6	NTU			FA
Sulfide	6/1/22 09:44	6/1/22 09:44			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 09:47
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 09:47
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 09:47
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 09:47
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-10

Laboratory ID Number: BC10427

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 6/1/22 10:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:40		1.015	0.0564	mg/L	0.030000	0.1015	J
* Calcium, Total	6/6/22 09:22	6/8/22 10:40		1.015	1.13	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:40		1.015	0.0679	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:40		1.015	1.32	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:40		1	10.6	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:40		1.015	4.96	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:40		1.015	3.95	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	0.0559	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	1.16	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	0.0134	mg/L	0.008120	0.0406	J
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	1.32	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:55		1	10.3	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	4.80	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:55		1.015	3.88	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.232	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.0821	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.00292	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.00143	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.000120	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.0125	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:45		1.015	1.28	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 6/1/22 10:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:45		1.015	0.00132	mg/L	0.000508	0.001015	
* Thallium, Total	6/6/22 07:27	6/6/22 15:45		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.0278	mg/L	0.006090	0.01015	
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.0767	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.00246	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.00140	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.0127	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	1.31	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	0.00120	mg/L	0.000508	0.001015	
* Thallium, Dissolved	6/6/22 07:45	6/6/22 14:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 13:58	6/6/22 13:58		1	0.457	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	0.44	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	35.3	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		1	
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 08:31	6/8/22 08:31		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/17/2022
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: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 6/1/22 10:55
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10428

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:25	6/6/22 13:25		1	7.97	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:53	6/8/22 13:53		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:35	6/7/22 16:35		1	4.75	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	6/1/22 10:50	6/1/22 10:50			49.53	uS/cm			FA
pH	6/1/22 10:50	6/1/22 10:50			4.74	SU			FA
Temperature	6/1/22 10:50	6/1/22 10:50			22.95	C			FA
Turbidity	6/1/22 10:50	6/1/22 10:50			3.83	NTU			FA
Sulfide	6/1/22 10:50	6/1/22 10:50			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 10:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 6/1/22 10:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 10:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 10:55
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BC10428

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 6/1/22 11:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10429

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:42		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 10:42		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:48		1.015	0.000275	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:27	6/6/22 15:48		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:23		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 13:59	6/6/22 13:59		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 6/17/2022
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: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 6/1/22 11:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10429

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	6/8/22 08:50	6/8/22 08:50		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:26	6/6/22 13:26		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:54	6/8/22 13:54		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:37	6/7/22 16:37		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Reported: 6/17/2022
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: WMWBARGFB
Sample Date: 6/1/22 11:10
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC10429

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0

Comments:

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARGFB
Sample Date: 6/1/22 11:10
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC10429

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments:

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

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 6/1/22 11:10
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BC10429

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 6/1/22 12:20
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10430

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:45		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:45		1.015	1.27	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:45		1.015	0.111	mg/L	0.008120	0.0406	
* Lithium, Total	6/6/22 09:22	6/8/22 10:45		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:45		1.015	1.40	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:45		1	10.4	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:45		1.015	4.86	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:45		1.015	7.53	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	1.30	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	1.41	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 11:58		1	10.2	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	4.77	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 11:58		1.015	7.58	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0846	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.000238	mg/L	0.000081	0.000203	
* Barium, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0803	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.00157	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.00162	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0000797	mg/L	0.000068	0.000203	J
* Manganese, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.0157	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:52		1.015	1.09	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 6/1/22 12:20
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10430

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:52		1.015	0.000581	mg/L	0.000508	0.001015	J
* Thallium, Total	6/6/22 07:27	6/6/22 15:52		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0100	mg/L	0.006090	0.01015	J
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0856	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.00127	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.00158	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0000797	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.0153	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	1.04	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	0.000530	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	6/6/22 07:45	6/6/22 14:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 14:00	6/6/22 14:00		1	0.326	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	1.88	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	41.3	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	1.88	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 09:06	6/8/22 09:06		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 6/1/22 12:20
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10430

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:27	6/6/22 13:27		1	14.7	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:56	6/8/22 13:56		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:38	6/7/22 16:38		1	3.40	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	6/1/22 12:15	6/1/22 12:15			64.53	uS/cm			FA
pH	6/1/22 12:15	6/1/22 12:15			4.56	SU			FA
Temperature	6/1/22 12:15	6/1/22 12:15			22.13	C			FA
Turbidity	6/1/22 12:15	6/1/22 12:15			4.86	NTU			FA
Sulfide	6/1/22 12:15	6/1/22 12:15			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 12:20
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 6/1/22 12:20
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 6/1/22 12:20
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 12:20
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-7

Laboratory ID Number: BC10430

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 6/1/22 13:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10431

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:48		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:48		1.015	0.940	mg/L	0.070035	0.406	
* Iron, Total	6/6/22 09:22	6/8/22 10:48		1.015	0.0374	mg/L	0.008120	0.0406	J
* Lithium, Total	6/6/22 09:22	6/8/22 10:48		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:48		1.015	1.09	mg/L	0.021315	0.406	
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:48		1	11.2	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:48		1.015	5.23	mg/L	0.02030	0.25375	
* Sodium, Total	6/6/22 09:22	6/8/22 10:48		1.015	4.84	mg/L	0.03045	0.406	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	0.863	mg/L	0.070035	0.406	
* Iron, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	1.02	mg/L	0.021315	0.406	
Silica, Dissolved (calc.)	6/6/22 09:06	6/8/22 12:01		1	11.2	mg/L			
Silicon, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	5.23	mg/L	0.02030	0.25375	
* Sodium, Dissolved	6/6/22 09:06	6/8/22 12:01		1.015	4.88	mg/L	0.03045	0.406	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.0280	mg/L	0.006090	0.01015	
* Arsenic, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.0477	mg/L	0.000508	0.001015	
* Beryllium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.00226	mg/L	0.000203	0.001015	
* Cobalt, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.000482	mg/L	0.000068	0.000203	
* Lead, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.0175	mg/L	0.000152	0.000203	
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:55		1.015	0.891	mg/L	0.169505	0.5075	

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 6/1/22 13:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10431

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Selenium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:27	6/6/22 15:55		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.00779	mg/L	0.006090	0.01015	J
* Arsenic, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.0460	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.00208	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.000430	mg/L	0.000068	0.000203	
* Lead, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.000108	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.0148	mg/L	0.000152	0.000203	
* Molybdenum, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	0.875	mg/L	0.169505	0.5075	
* Selenium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	6/6/22 07:45	6/6/22 14:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/7/22 11:15	6/7/22 14:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 14:01	6/6/22 14:01		1	0.237	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	6/14/22 10:00	6/14/22 10:40		1	4.76	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	30.7	mg/L		25	
Analytical Method: SM 4500CO2 D	***Analyst: JAG***								
Bicarbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	4.76	mg/L			
Carbonate Alkalinity, (calc.)	6/14/22 10:00	6/14/22 10:40		1	Not Detected	mg/L		0.5	
Analytical Method: SM 5310 B	***Analyst: ELH***								
* Total Organic Carbon	6/8/22 09:22	6/8/22 09:22		1	Not Detected	mg/L	1.00	2	U

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

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

Reported: 6/17/2022
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: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 6/1/22 13:10
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10431

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:29	6/6/22 13:29		1	5.38	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:57	6/8/22 13:57		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:39	6/7/22 16:39		1	5.11	mg/L	0.6	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	6/1/22 13:08	6/1/22 13:08			44.90	uS/cm			FA
pH	6/1/22 13:08	6/1/22 13:08			4.03	SU			FA
Temperature	6/1/22 13:08	6/1/22 13:08			22.17	C			FA
Turbidity	6/1/22 13:08	6/1/22 13:08			2.9	NTU			FA
Sulfide	6/1/22 13:08	6/1/22 13:08			0	mg/L			FA

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

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 13:10
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Aluminum, Dissolved	mg/L	-0.0000323	0.010	0.100	0.114	0.113	0.106	0.0850 to 0.115	106	70.0 to 130	0.881	20.0
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10431	Antimony, Dissolved	mg/L	0.000307	0.00100	0.100	0.0923	0.0925	0.0925	0.0850 to 0.115	92.3	70.0 to 130	0.216	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10431	Arsenic, Dissolved	mg/L	0.0000139	0.000176	0.100	0.101	0.104	0.100	0.0850 to 0.115	101	70.0 to 130	2.93	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10431	Barium, Dissolved	mg/L	0.0000004	0.00100	0.100	0.148	0.147	0.104	0.0850 to 0.115	102	70.0 to 130	0.678	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10431	Beryllium, Dissolved	mg/L	0.0000169	0.000880	0.100	0.0993	0.104	0.104	0.0850 to 0.115	99.3	70.0 to 130	4.62	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Boron, Dissolved	mg/L	0.000221	0.0650	1.00	1.03	1.05	1.01	0.850 to 1.15	103	70.0 to 130	1.92	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10431	Cadmium, Dissolved	mg/L	0.0000073	0.000147	0.100	0.101	0.101	0.101	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10431	Calcium, Dissolved	mg/L	-0.00230	0.152	5.00	5.66	5.49	4.88	4.25 to 5.75	95.9	70.0 to 130	3.05	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10431	Chromium, Dissolved	mg/L	-0.0000137	0.000440	0.100	0.104	0.105	0.102	0.0850 to 0.115	102	70.0 to 130	0.957	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10431	Cobalt, Dissolved	mg/L	0.0000002	0.000147	0.100	0.107	0.108	0.105	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10431	Iron, Dissolved	mg/L	-0.000261	0.0176	0.2	0.200	0.199	0.200	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 13:10
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10431	Lead, Dissolved	mg/L	0.0000114	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10431	Lithium, Dissolved	mg/L	0.000211	0.0154	0.200	0.202	0.202	0.201	0.170 to 0.230	101	70.0 to 130	0.00	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10431	Magnesium, Dissolved	mg/L	-0.00997	0.0462	5.00	6.08	5.85	5.16	4.25 to 5.75	101	70.0 to 130	3.86	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10431	Manganese, Dissolved	mg/L	0.0000125	0.0002	0.100	0.117	0.119	0.103	0.0850 to 0.115	102	70.0 to 130	1.69	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10431	Molybdenum, Dissolved	mg/L	0.0000058	0.0002	0.100	0.100	0.0990	0.101	0.0850 to 0.115	100	70.0 to 130	1.01	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10431	Potassium, Dissolved	mg/L	0.00330	0.367	10.0	10.8	11.0	9.93	8.50 to 11.5	99.2	70.0 to 130	1.83	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10431	Selenium, Dissolved	mg/L	0.0000307	0.00100	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10431	Silicon, Dissolved	mg/L	-0.00110	0.0440	1.00	6.28	6.31	1.02	0.850 to 1.15	105	70.0 to 130	0.477	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10431	Sodium, Dissolved	mg/L	-0.000155	0.0660	5.00	9.90	9.72	5.13	4.25 to 5.75	100	70.0 to 130	1.83	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10431	Thallium, Dissolved	mg/L	0.0000117	0.000147	0.100	0.105	0.103	0.107	0.0850 to 0.115	105	70.0 to 130	1.92	20.0

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

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 6/1/22 13:10
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

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

Reported: 6/17/2022
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: WMWBARG
Sample Date: 6/1/22 13:10
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum - MW-8

Laboratory ID Number: BC10431

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10431	Alkalinity, Total as CaCO3	mg/L					5.12	50.5	45.0 to 55.0			7.29	10.0
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

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

Reported: 6/17/2022
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: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 6/1/22 13:35
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10432

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.021315	0.406	U
Silica, Total (calc.)	6/6/22 09:22	6/8/22 10:51		1	Not Detected	mg/L			
Silicon, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	6/6/22 09:22	6/8/22 10:51		1.015	Not Detected	mg/L	0.03045	0.406	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Aluminum, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.006090	0.01015	U
* Arsenic, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000081	0.000203	U
* Barium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	6/6/22 07:27	6/6/22 15:59		1.015	0.000250	mg/L	0.000203	0.001015	J
* Cobalt, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000152	0.000203	U
* Molybdenum, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000102	0.000203	U
* Potassium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	6/6/22 07:27	6/6/22 15:59		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1	***Analyst: CRB***								
* Mercury, Total by CVAA	6/14/22 16:25	6/14/22 20:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	6/6/22 14:01	6/6/22 14:01		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C	***Analyst: CNJ***								
* Solids, Dissolved	6/3/22 13:15	6/6/22 13:42		1	Not Detected	mg/L		25	U

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

Comments:

Reported: 6/17/2022
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: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 6/1/22 13:35
Customer ID:
Submittal Date: 6/2/22 12:14

Laboratory ID Number: BC10432

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: ELH***							
* Total Organic Carbon	6/8/22 09:40	6/8/22 09:40		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	6/6/22 13:30	6/6/22 13:30		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	6/8/22 13:58	6/8/22 13:58		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	6/7/22 16:40	6/7/22 16:40		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Reported: 6/17/2022
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: WMWBARGEB
Sample Date: 6/1/22 13:35
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC10432

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Aluminum, Total	mg/L	0.000959	0.010	0.100	0.107	0.107	0.106	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BC10432	Antimony, Total	mg/L	0.000416	0.00100	0.100	0.0941	0.0913	0.0928	0.0850 to 0.115	94.1	70.0 to 130	3.02	20.0
BC10432	Arsenic, Total	mg/L	0.0000068	0.000176	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BC10432	Barium, Total	mg/L	0.0000128	0.00100	0.100	0.105	0.102	0.0995	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BC10432	Beryllium, Total	mg/L	0.0000131	0.000880	0.100	0.103	0.103	0.0967	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Boron, Total	mg/L	0.000098	0.0650	1.00	1.01	0.994	1.01	0.850 to 1.15	101	70.0 to 130	1.60	20.0
BC10432	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.101	0.100	0.103	0.0850 to 0.115	101	70.0 to 130	0.995	20.0
BC10432	Calcium, Total	mg/L	-0.00539	0.152	5.00	4.93	4.77	4.93	4.25 to 5.75	98.6	70.0 to 130	3.30	20.0
BC10432	Chloride	mg/L	-0.0758	1.00	10.0	10.6	10.7	9.61	9.00 to 11.0	106	80.0 to 120	0.939	20.0
BC10432	Chromium, Total	mg/L	0.0000835	0.000440	0.100	0.103	0.104	0.102	0.0850 to 0.115	103	70.0 to 130	0.966	20.0
BC10432	Cobalt, Total	mg/L	0.0000012	0.000147	0.100	0.107	0.108	0.107	0.0850 to 0.115	107	70.0 to 130	0.930	20.0
BC10432	Fluoride	mg/L	0.0035	0.125	2.50	2.49	2.52	2.52	2.25 to 2.75	99.6	80.0 to 120	1.20	20.0
BC10432	Iron, Total	mg/L	0.000083	0.0176	0.2	0.200	0.202	0.200	0.170 to 0.230	100	70.0 to 130	0.995	20.0
BC10432	Lead, Total	mg/L	0.0000079	0.000147	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BC10432	Lithium, Total	mg/L	0.000209	0.0154	0.200	0.202	0.204	0.204	0.170 to 0.230	101	70.0 to 130	0.985	20.0
BC10432	Magnesium, Total	mg/L	-0.00569	0.0462	5.00	5.12	5.10	5.18	4.25 to 5.75	102	70.0 to 130	0.391	20.0
BC10432	Manganese, Total	mg/L	0.0000119	0.0002	0.100	0.104	0.104	0.103	0.0850 to 0.115	104	70.0 to 130	0.00	20.0
BC10432	Mercury, Total by CVAA	mg/L	0.000134	0.000500	0.004	0.00409	0.00408	0.00400	0.00340 to 0.00460	102	70.0 to 130	0.245	20.0
BC10432	Molybdenum, Total	mg/L	0.0000019	0.0002	0.100	0.101	0.101	0.0999	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BC10432	Potassium, Total	mg/L	-0.00640	0.367	10.0	10.2	10.2	10.0	8.50 to 11.5	102	70.0 to 130	0.00	20.0
BC10432	Selenium, Total	mg/L	-0.0000167	0.00100	0.100	0.103	0.103	0.101	0.0850 to 0.115	103	70.0 to 130	0.00	20.0
BC10432	Silicon, Total	mg/L	-0.000555	0.0440	1.00	1.02	1.02	1.02	0.850 to 1.15	102	70.0 to 130	0.00	20.0
BC10432	Sodium, Total	mg/L	0.00196	0.0660	5.00	5.14	5.19	5.17	4.25 to 5.75	103	70.0 to 130	0.968	20.0

Comments:

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARGEB
Sample Date: 6/1/22 13:35
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC10432

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Sulfate	mg/L	0.0691	2.0	20.0	20.3	20.4	19.0	18.0 to 22.0	102	80.0 to 120	0.491	20.0
BC10432	Thallium, Total	mg/L	0.0000121	0.000147	0.100	0.106	0.106	0.106	0.0850 to 0.115	106	70.0 to 130	0.00	20.0
BC10432	Total Organic Carbon	mg/L	0.230	1.00	10.0	10.0	10.2	25.4		100	80.0 to 120	1.98	20.0

Comments:

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

Alabama Power

Batch QC Summary

Customer Account: WMWBARGEB
Sample Date: 6/1/22 13:35
Customer ID:
Delivery Date: 6/2/22 12:14

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BC10432

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BC10432	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.200	2.00	2.07	0.073	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BC10431	Solids, Dissolved	mg/L	0.0000	25.0			32.7	50.0	40.0 to 60.0			6.31	10.0

Comments:

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

Definitions

Alabama Power

Project Number: WMWBARG_1373

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	TJ Daugherty	Requested By	Greg Dyer
		Location	Barry 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/Nitrites, TOC	250 mL	6	Anions	250 mL	8	N/A	N/A

Comments: N/N, TOC pH < 2 SU. BC 06/02/22

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	05/31/2022	13:38	7	Groundwater		BC10423
MW-6	05/31/2022	14:55	7	Groundwater		BC10424
MW-6 Dup	05/31/2022	14:55	7	Sample Duplicate		BC10425
MW-9	06/01/2022	08:45	7	Groundwater		BC10426
MW-10	06/01/2022	09:47	7	Groundwater		BC10427
PZ-11	06/01/2022	10:55	7	Groundwater		BC10428
FB-1	06/01/2022	11:10	5	Field Blank		BC10429
MW-7	06/01/2022	12:20	7	Groundwater		BC10430
MW-8	06/01/2022	13:10	7	Groundwater		BC10431
EB-1	06/01/2022	13:35	5	Equipment Blank		BC10432

Relinquished By	Received By	Date/Time
		06/02/2022 12:00

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	2.3 °C
Sample Event	1373	Thermometer ID	7044-38281-2-1
		pH Strip ID	10275-59506-10-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

☑ Field Complete ☑ Lab Complete ☑ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Collector	TJ Daugherty	Requested By	Greg Dyer
		Location	Barry Gypsum

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

Comments: MS/MSD collected @ MW-9.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	05/31/2022	13:38	1	Groundwater		BC10433
MW-6	05/31/2022	14:55	1	Groundwater		BC10434
MW-6 Dup	05/31/2022	14:55	1	Sample Duplicate		BC10435
MW-9	06/01/2022	08:45	3	Groundwater		BC10436
MW-10	06/01/2022	09:47	1	Groundwater		BC10437
PZ-11	06/01/2022	10:55	1	Groundwater		BC10438
FB-1	06/01/2022	11:10	1	Field Blank		BC10439
MW-7	06/01/2022	12:20	1	Groundwater		BC10440
MW-8	06/01/2022	13:10	1	Groundwater		BC10441
EB-1	06/01/2022	13:35	1	Equipment Blank		BC10442

Relinquished By	Received By	Date/Time
		06/02/2022 12:00

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2	☑
Turbidity ID	4677-23342-4-1	Cooler Temp	N/A
Sample Event	1373	Thermometer ID	N/A
		pH Strip ID	10275-59506-10-2

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

July 18, 2022

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARPU_1372
Pace Project No.: 30502759

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on June 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

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

Sincerely,

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

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power

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

CERTIFICATIONS

Project: WMWBARPU_1372
Pace Project No.: 30502759

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

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

SAMPLE SUMMARY

Project: WMWBARPU_1372
Pace Project No.: 30502759

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30497264001	**BC10409 MW-1**	Water	05/31/22 13:24	06/08/22 10:55
30497264002	**BC10409 MW-1 MS**	Water	05/31/22 13:24	06/08/22 10:55
30497264003	**BC10409 MW-1 MSD**	Water	05/31/22 13:24	06/08/22 10:55
30497264004	**BC10410 MW-2**	Water	05/31/22 14:28	06/08/22 10:55
30497264005	**BC10411 FB-1**	Water	05/31/22 14:45	06/08/22 10:55
30497264006	**BC10412 MW-3**	Water	05/31/22 15:22	06/08/22 10:55
30497264007	**BC10413 MW-3 Dup**	Water	05/31/22 15:22	06/08/22 10:55
30497264008	**BC10414 MW-4**	Water	05/31/22 16:24	06/08/22 10:55
30497264009	**BC10415 EB-1**	Water	05/31/22 16:45	06/08/22 10:55

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

SAMPLE ANALYTE COUNT

Project: WMWBARPU_1372
Pace Project No.: 30502759

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30497264001	**BC10409 MW-1**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264002	**BC10409 MW-1 MS**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30497264003	**BC10409 MW-1 MSD**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30497264004	**BC10410 MW-2**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264005	**BC10411 FB-1**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264006	**BC10412 MW-3**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264007	**BC10413 MW-3 Dup**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264008	**BC10414 MW-4**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264009	**BC10415 EB-1**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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

PROJECT NARRATIVE

Project: WMWBARPU_1372
Pace Project No.: 30502759

Method: **EPA 9315**
Description: 9315 Total Radium
Client: Alabama Power
Date: July 18, 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: WMWBARPU_1372
Pace Project No.: 30502759

Method: **EPA 9320**
Description: 9320 Radium 228
Client: Alabama Power
Date: July 18, 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: WMWBARPU_1372
Pace Project No.: 30502759

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Alabama Power
Date: July 18, 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: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10409 MW-1 **Lab ID: 30497264001** Collected: 05/31/22 13:24 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.489 ± 0.227 (0.256) C:87% T:NA**	pCi/L	07/11/22 09:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.849 ± 0.368 (0.583) C:70% T:95%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.34 ± 0.595 (0.839)**	pCi/L	07/11/22 22:45	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: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10409 MW-1 MS **Lab ID: 30497264002** Collected: 05/31/22 13:24 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**100.20 %REC ± NA (NA) C:NA T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**100.48 %REC ± NA (NA) C:NA T:NA**	pCi/L	07/07/22 11:21	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: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10409 MW-1 MSD **Lab ID: 30497264003** Collected: 05/31/22 13:24 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**107.43 %REC 6.96 RPD ± NA (NA) C:NA T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**96.00 %REC 4.56 RPD ± NA (NA) C:NA T:NA**	pCi/L	07/07/22 11:21	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10410 MW-2 **Lab ID: 30497264004** Collected: 05/31/22 14:28 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.599 ± 0.245 (0.238) C:88% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.783 ± 0.376 (0.633) C:71% T:91%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.38 ± 0.621 (0.871)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10411 FB-1 **Lab ID: 30497264005** Collected: 05/31/22 14:45 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.205U ± 0.156 (0.242) C:91% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.418U ± 0.295 (0.564) C:74% T:96%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.623U ± 0.451 (0.806)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10412 MW-3 **Lab ID: 30497264006** Collected: 05/31/22 15:22 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.393 ± 0.203 (0.247) C:93% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.28 ± 0.477 (0.700) C:71% T:86%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.67 ± 0.680 (0.947)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10413 MW-3 Dup **Lab ID: 30497264007** Collected: 05/31/22 15:22 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.585 ± 0.243 (0.241) C:91% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.768 ± 0.378 (0.645) C:70% T:92%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.35 ± 0.621 (0.886)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10414 MW-4 **Lab ID: 30497264008** Collected: 05/31/22 16:24 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.469 ± 0.216 (0.222) C:91% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.996 ± 0.362 (0.479) C:72% T:94%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.47 ± 0.578 (0.701)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1372
Pace Project No.: 30502759

Sample: BC10415 EB-1 **Lab ID: 30497264009** Collected: 05/31/22 16:45 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.107U ± 0.131 (0.264) C:93% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.447U ± 0.321 (0.618) C:69% T:99%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.554U ± 0.452 (0.882)**	pCi/L	07/11/22 22:45	7440-14-4	

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: WMWBARPU_1372
Pace Project No.: 30502759

QC Batch: 511756
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30497264001, 30497264002, 30497264003, 30497264004, 30497264005, 30497264006, 30497264007, 30497264008, 30497264009

METHOD BLANK: 2480257 Matrix: Water
Associated Lab Samples: 30497264001, 30497264002, 30497264003, 30497264004, 30497264005, 30497264006, 30497264007, 30497264008, 30497264009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.215 ± 0.115 (0.148) C:93% T:NA	pCi/L	07/11/22 09:59	

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: WMWBARPU_1372
Pace Project No.: 30502759

QC Batch: 511755
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30497264001, 30497264002, 30497264003, 30497264004, 30497264005, 30497264006, 30497264007, 30497264008, 30497264009

METHOD BLANK: 2480254 Matrix: Water
Associated Lab Samples: 30497264001, 30497264002, 30497264003, 30497264004, 30497264005, 30497264006, 30497264007, 30497264008, 30497264009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.729 ± 0.340 (0.552) C:70% T:96%	pCi/L	07/07/22 11:25	

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: WMWBARPU_1372
Pace Project No.: 30502759

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: WMWBARPU_1372
Pace Project No.: 30502759

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30497264001	**BC10409 MW-1**	EPA 9315	511756		
30497264002	**BC10409 MW-1 MS**	EPA 9315	511756		
30497264003	**BC10409 MW-1 MSD**	EPA 9315	511756		
30497264004	**BC10410 MW-2**	EPA 9315	511756		
30497264005	**BC10411 FB-1**	EPA 9315	511756		
30497264006	**BC10412 MW-3**	EPA 9315	511756		
30497264007	**BC10413 MW-3 Dup**	EPA 9315	511756		
30497264008	**BC10414 MW-4**	EPA 9315	511756		
30497264009	**BC10415 EB-1**	EPA 9315	511756		
30497264001	**BC10409 MW-1**	EPA 9320	511755		
30497264002	**BC10409 MW-1 MS**	EPA 9320	511755		
30497264003	**BC10409 MW-1 MSD**	EPA 9320	511755		
30497264004	**BC10410 MW-2**	EPA 9320	511755		
30497264005	**BC10411 FB-1**	EPA 9320	511755		
30497264006	**BC10412 MW-3**	EPA 9320	511755		
30497264007	**BC10413 MW-3 Dup**	EPA 9320	511755		
30497264008	**BC10414 MW-4**	EPA 9320	511755		
30497264009	**BC10415 EB-1**	EPA 9320	511755		
30497264001	**BC10409 MW-1**	Total Radium Calculation	517875		
30497264004	**BC10410 MW-2**	Total Radium Calculation	517875		
30497264005	**BC10411 FB-1**	Total Radium Calculation	517875		
30497264006	**BC10412 MW-3**	Total Radium Calculation	517875		
30497264007	**BC10413 MW-3 Dup**	Total Radium Calculation	517875		
30497264008	**BC10414 MW-4**	Total Radium Calculation	517875		
30497264009	**BC10415 EB-1**	Total Radium Calculation	517875		

CH… ocument
The C… st be completed accurately.

30497264

Page : 1 Of

Section A Required Client Information:		Section B Required Project Information:		Attention:	Brooke Caton	Regulatory Agency
Company:	Alabama Power Company	Report To:	Brooke Caton	Company Name:	Alabama Power Co.	
Address:	744 Highway 87 GSC Bldg #8	Copy To:	Renee Jernigan & Blaine Denton	Address:	744 Highway 87 GSC Bldg #8	
	Calera, AL 35040			Pace Quote:	CCR	State / Location
Email To:	tbwill@southernco.com	Purchase Order #:	APC10755638	Pace Project Manager:	Skyler Richmond	AL
Phone:	205-664-6101 Fax:	Project Name:	Plant Barry Pooled Upgradient	Pace Profile #:	16788	
Requested Due Date:	28 days	Project Number:	WMWBARPU_1372			

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	Y/N	Analyses Test: EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)
1	BC10409	MW-1	APCO-BY-UP-MW-1	APCO_Barry_Pooled_Upgradient		x		GW	G	5/31/2022	13:24	3			X		X	X	X		001, 002, 003
2	BC10410	MW-2	APCO-BY-UP-MW-2	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	14:28	1			X		X	X	X		004
3	BC10411	FB-1	APCO-BY-UP-FB-01	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	14:45	1			X		X	X	X		005
4	BC10412	MW-3	APCO-BY-UP-MW-3	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	15:22	1			X		X	X	X		006
5	BC10413	MW-3 Dup	APCO-BY-UP-MW-3	APCO_Barry_Pooled_Upgradient	x			GW	G	5/31/2022	15:22	1			X		X	X	X		007
6	BC10414	MW-4	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	16:24	1			X		X	X	X		008
7	BC10415	EB-1	APCO-BY-UP-EB-01	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	16:45	1			X		X	X	X		009
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton/ APC GTL	6/3/2022	7:46		6-3-22	10:59	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dallas Gentry

SIGNATURE of SAMPLER: DATE Signed:

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	JC2
Date:	6/19/2022
Worklist:	67288
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2480257
MB concentration:	0.215
M/B Counting Uncertainty:	0.111
MB MDC:	0.148
MB Numerical Performance Indicator:	3.80
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS67288	LCSD67288
Count Date:	7/11/2022	7/11/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.026	24.026
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.505	0.506
Target Conc. (pCi/L, g, F):	4.756	4.747
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	4.603	4.462
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.465	0.446
Numerical Performance Indicator:	-0.64	-1.25
Percent Recovery:	96.77%	93.98%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	5/31/2022	
Sample I.D.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.027	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.308	
MS Target Conc.(pCi/L, g, F):	15.619	
MSD Aliquot (L, g, F):	0.275	
MSD Target Conc. (pCi/L, g, F):	17.494	
MS Spike Uncertainty (calculated):	0.187	
MSD Spike Uncertainty (calculated):	0.210	
Sample Result:	0.489	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.216	
Sample Matrix Spike Result:	16.140	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.094	
Sample Matrix Spike Duplicate Result:	19.283	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.262	
MS Numerical Performance Indicator:	0.054	
MSD Numerical Performance Indicator:	1.964	
MS Percent Recovery:	100.20%	
MSD Percent Recovery:	107.43%	
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%	

Duplicate Sample Assessment		
Sample I.D.:	LCS67288	
Duplicate Sample I.D.	LCSD67288	
Sample Result (pCi/L, g, F):	4.603	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.465	
Sample Duplicate Result (pCi/L, g, F):	4.462	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.446	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.429	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	2.93%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Sample Matrix Spike Result:	16.140	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.094	
Sample Matrix Spike Duplicate Result:	19.283	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.262	
Duplicate Numerical Performance Indicator:	-3.687	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	6.96%	
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:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	VAL
Date:	6/17/2022
Worklist:	67287
Matrix:	WI

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2480254
MB concentration:	0.729
M/B 2 Sigma CSU:	0.340
MB MDC:	0.552
MB Numerical Performance Indicator:	4.21
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS67287	LCSD67287
Count Date:	7/7/2022	
Spike I.D.:	22-016	
Decay Corrected Spike Concentration (pCi/mL):	35.124	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.809	
Target Conc. (pCi/L, g, F):	4.344	
Uncertainty (Calculated):	0.213	
Result (pCi/L, g, F):	3.828	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.860	
Numerical Performance Indicator:	-1.14	
Percent Recovery:	88.11%	
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:	5/31/2022	
Sample I.D.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Spike I.D.:	22-016	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	35.554	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.806	
MS Target Conc.(pCi/L, g, F):	8.818	
MSD Aliquot (L, g, F):	0.810	
MSD Target Conc. (pCi/L, g, F):	8.784	
MS Spike Uncertainty (calculated):	0.432	
MSD Spike Uncertainty (calculated):	0.430	
Sample Result:	0.849	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.368	
Sample Matrix Spike Result:	9.709	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.924	
Sample Matrix Spike Duplicate Result:	9.282	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.838	
MS Numerical Performance Indicator:	0.041	
MSD Numerical Performance Indicator:	-0.358	
MS Percent Recovery:	100.48%	
MSD Percent Recovery:	96.00%	
MS Status vs Numerical Indicator:	Pass	
MSD Status vs Numerical Indicator:	Pass	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135%	
MS/MSD Lower % Recovery Limits:	60%	

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.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Sample Matrix Spike Result:	9.709	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.924	
Sample Matrix Spike Duplicate Result:	9.282	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.838	
Duplicate Numerical Performance Indicator:	0.315	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	4.56%	
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:
*The method blank result is below the reporting limit for this analysis and is acceptable.

6/21/22

7/8/22

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

July 25, 2022

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARG_1373
Pace Project No.: 30497264

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on June 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

(Greensburg, PA) - Revision 1- This report replaces the 7/22/22 report. This project was revised on 7/25/22 to revise sample IDs to match the chain of custody.

(Greensburg, PA) - Revision 2- This report replaces the 7/25/22 report. This project was revised on 7/25/22 to revise sample times to match the chain of custody.

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

Sincerely,

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

Enclosures

cc: Blaine Denton, Alabama Power
Renee Jernigan, Alabama Power

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: WMWBARG_1373
Pace Project No.: 30497264

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

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Greensburg, PA 15601
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SAMPLE SUMMARY

Project: WMWBARG_1373
Pace Project No.: 30497264

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30497264010	**BC10433 MW-5**	Water	05/31/22 13:38	06/08/22 10:55
30497264011	**BC10434 MW-6**	Water	05/31/22 14:55	06/08/22 10:55
30497264012	**BC10435 MW-6 Dup**	Water	05/31/22 14:55	06/08/22 10:55
30497264013	**BC10436 MW-9**	Water	06/01/22 08:45	06/08/22 10:55
30497264014	**BC10437 MW-10**	Water	06/01/22 09:47	06/08/22 10:55
30497264015	**BC10436 MW-9 MS**	Water	06/01/22 08:45	06/08/22 10:55
30497264016	**BC10436 MW-9 MSD**	Water	06/01/22 08:45	06/08/22 10:55
30497264017	**BC10438 PZ-11**	Water	06/01/22 10:55	06/08/22 10:55
30497264018	**BC10439 FB-1**	Water	06/01/22 11:10	06/08/22 10:55
30497264019	**BC10440 MW-7**	Water	06/01/22 12:20	06/08/22 10:55
30497264020	**BC10441 MW-8**	Water	06/01/22 13:10	06/08/22 10:55
30497264021	**BC10442 EB-1**	Water	06/01/22 13:35	06/08/22 10:55

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: WMWBARG_1373
Pace Project No.: 30497264

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30497264010	**BC10433 MW-5**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264011	**BC10434 MW-6**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264012	**BC10435 MW-6 Dup**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264013	**BC10436 MW-9**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264014	**BC10437 MW-10**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30497264015	**BC10436 MW-9 MS**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30497264016	**BC10436 MW-9 MSD**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30497264017	**BC10438 PZ-11**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264018	**BC10439 FB-1**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264019	**BC10440 MW-7**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264020	**BC10441 MW-8**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
30497264021	**BC10442 EB-1**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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PROJECT NARRATIVE

Project: WMWBARG_1373
Pace Project No.: 30497264

Method: **EPA 9315**
Description: 9315 Total Radium
Client: Alabama Power
Date: July 25, 2022

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

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

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

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

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

Additional Comments:

Analyte Comments:

QC Batch: 517954

1c: The % Recovery for the Radium-226 matrix spike duplicate performed on 30497264014 was high and outside of Pace's default acceptance criteria at 129.31%. The high bias may be due to a sample matrix interference and indicate a high bias in the sample result.

- BC10436 MW-9 MSD (Lab ID: 30497264016)
  - Radium-226

2c: The % Recovery for the Radium-226 matrix spike performed on 30497264014 was high and outside of Pace's default acceptance criteria at 139.92%. The high bias may be due to a sample matrix interference and indicate a high bias in the sample result.

- BC10436 MW-9 MS (Lab ID: 30497264015)
  - Radium-226

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PROJECT NARRATIVE

Project: WMWBARG_1373
Pace Project No.: 30497264

Method: **EPA 9320**
Description: 9320 Radium 228
Client: Alabama Power
Date: July 25, 2022

General Information:
12 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
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PROJECT NARRATIVE

Project: WMWBARG_1373
Pace Project No.: 30497264

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: Alabama Power
Date: July 25, 2022

General Information:
10 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
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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10433 MW-5 **Lab ID: 30497264010** Collected: 05/31/22 13:38 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.840 ± 0.322 (0.319) C:85% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.47 ± 0.488 (0.648) C:70% T:91%**	pCi/L	07/07/22 11:21	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.31 ± 0.810 (0.967)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10434 MW-6 **Lab ID: 30497264011** Collected: 05/31/22 14:55 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**1.14 ± 0.377 (0.315) C:87% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.08 ± 0.412 (0.611) C:70% T:93%**	pCi/L	07/07/22 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.22 ± 0.789 (0.926)**	pCi/L	07/11/22 22:45	7440-14-4	

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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10435 MW-6 Dup **Lab ID: 30497264012** Collected: 05/31/22 14:55 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**1.17 ± 0.376 (0.319) C:92% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.21 ± 0.436 (0.581) C:67% T:88%**	pCi/L	07/07/22 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.38 ± 0.812 (0.900)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10436 MW-9 **Lab ID: 30497264013** Collected: 06/01/22 08:45 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.610 ± 0.268 (0.308) C:89% T:NA**	pCi/L	07/11/22 10:00	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.44 ± 0.509 (0.732) C:67% T:93%**	pCi/L	07/07/22 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.05 ± 0.777 (1.04)**	pCi/L	07/11/22 22:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10437 MW-10 **Lab ID: 30497264014** Collected: 06/01/22 09:47 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.945 ± 0.553 (0.813) C:55% T:NA**	pCi/L	07/22/22 10:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.32 ± 0.480 (0.666) C:69% T:95%**	pCi/L	07/21/22 11:56	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.27 ± 1.03 (1.48)**	pCi/L	07/22/22 14:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10436 MW-9 MS **Lab ID: 30497264015** Collected: 06/01/22 08:45 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**139.92 %REC ± NA (NA) C:NA T:NA**	pCi/L	07/22/22 10:42	13982-63-3	2c
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**89.70 %REC ± NA (NA) C:NA T:NA**	pCi/L	07/21/22 11:57	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10436 MW-9 MSD **Lab ID: 30497264016** Collected: 06/01/22 08:45 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**129.31 %REC 7.88RPD ± NA (NA) C:NA% T:NA**	pCi/L	07/22/22 10:42	13982-63-3	1c
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**76.66 %REC 15.68RPD ± NA (NA) C:NA T:NA**	pCi/L	07/21/22 11:56	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10438 PZ-11 **Lab ID: 30497264017** Collected: 06/01/22 10:55 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.464 ± 0.209 (0.234) C:94% T:NA**	pCi/L	07/11/22 09:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.662 ± 0.352 (0.624) C:71% T:95%**	pCi/L	07/07/22 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.13 ± 0.561 (0.858)**	pCi/L	07/11/22 22:45	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: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10439 FB-1 **Lab ID: 30497264018** Collected: 06/01/22 11:10 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.154U ± 0.154 (0.274) C:90% T:NA**	pCi/L	07/11/22 09:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.474U ± 0.325 (0.608) C:68% T:87%**	pCi/L	07/07/22 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.628U ± 0.479 (0.882)**	pCi/L	07/11/22 22:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10440 MW-7 **Lab ID: 30497264019** Collected: 06/01/22 12:20 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.179U ± 0.156 (0.266) C:91% T:NA**	pCi/L	07/11/22 09:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.811 ± 0.390 (0.654) C:68% T:92%**	pCi/L	07/07/22 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.990 ± 0.546 (0.920)**	pCi/L	07/11/22 22:45	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: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10441 MW-8 **Lab ID: 30497264020** Collected: 06/01/22 13:10 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.300U ± 0.202 (0.318) C:89% T:NA**	pCi/L	07/11/22 09:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.07 ± 0.437 (0.687) C:69% T:93%**	pCi/L	07/07/22 11:22	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.37 ± 0.639 (1.01)**	pCi/L	07/11/22 22:45	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: WMWBARG_1373
Pace Project No.: 30497264

Sample: BC10442 EB-1 **Lab ID: 30497264021** Collected: 06/01/22 13:35 Received: 06/08/22 10:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**-0.0583U ± 0.119 (0.359) C:92% T:NA**	pCi/L	07/11/22 09:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.234U ± 0.279 (0.586) C:72% T:96%**	pCi/L	07/07/22 11:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.234U ± 0.398 (0.945)**	pCi/L	07/11/22 22:45	7440-14-4	

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1373
Pace Project No.: 30497264

QC Batch: 511756
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30497264010, 30497264011, 30497264012, 30497264013, 30497264017, 30497264018, 30497264019, 30497264020, 30497264021

METHOD BLANK: 2480257 Matrix: Water
Associated Lab Samples: 30497264010, 30497264011, 30497264012, 30497264013, 30497264017, 30497264018, 30497264019, 30497264020, 30497264021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.215 ± 0.115 (0.148) C:93% T:NA	pCi/L	07/11/22 09:59	

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: WMWBARG_1373
Pace Project No.: 30497264

QC Batch: 511755
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30497264010, 30497264011, 30497264012, 30497264013, 30497264017, 30497264018, 30497264019, 30497264020, 30497264021

METHOD BLANK: 2480254 Matrix: Water
Associated Lab Samples: 30497264010, 30497264011, 30497264012, 30497264013, 30497264017, 30497264018, 30497264019, 30497264020, 30497264021

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.729 ± 0.340 (0.552) C:70% T:96%	pCi/L	07/07/22 11:25	

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: WMWBARG_1373
Pace Project No.: 30497264

QC Batch: 517954
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30497264014, 30497264015, 30497264016

METHOD BLANK: 2510667
Matrix: Water
Associated Lab Samples: 30497264014, 30497264015, 30497264016

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0241 ± 0.191 (0.568) C:75% T:NA	pCi/L	07/21/22 08:31	

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: WMWBARG_1373
Pace Project No.: 30497264

QC Batch: 517953
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30497264014, 30497264015, 30497264016

METHOD BLANK: 2510666 Matrix: Water
Associated Lab Samples: 30497264014, 30497264015, 30497264016

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.578 ± 0.351 (0.645) C:69% T:97%	pCi/L	07/21/22 11:56	

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: WMWBARG_1373
Pace Project No.: 30497264

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.

ANALYTE QUALIFIERS

1c	The % Recovery for the Radium-226 matrix spike duplicate performed on 30497264014 was high and outside of Pace's default acceptance criteria at 129.31%. The high bias may be due to a sample matrix interference and indicate a high bias in the sample result.
2c	The % Recovery for the Radium-226 matrix spike performed on 30497264014 was high and outside of Pace's default acceptance criteria at 139.92%. The high bias may be due to a sample matrix interference and indicate a high bias in the sample result.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARG_1373
Pace Project No.: 30497264

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30497264010	**BC10433 MW-5**	EPA 9315	511756		
30497264011	**BC10434 MW-6**	EPA 9315	511756		
30497264012	**BC10435 MW-6 Dup**	EPA 9315	511756		
30497264013	**BC10436 MW-9**	EPA 9315	511756		
30497264014	**BC10437 MW-10**	EPA 9315	517954		
30497264015	**BC10436 MW-9 MS**	EPA 9315	517954		
30497264016	**BC10436 MW-9 MSD**	EPA 9315	517954		
30497264017	**BC10438 PZ-11**	EPA 9315	511756		
30497264018	**BC10439 FB-1**	EPA 9315	511756		
30497264019	**BC10440 MW-7**	EPA 9315	511756		
30497264020	**BC10441 MW-8**	EPA 9315	511756		
30497264021	**BC10442 EB-1**	EPA 9315	511756		
30497264010	**BC10433 MW-5**	EPA 9320	511755		
30497264011	**BC10434 MW-6**	EPA 9320	511755		
30497264012	**BC10435 MW-6 Dup**	EPA 9320	511755		
30497264013	**BC10436 MW-9**	EPA 9320	511755		
30497264014	**BC10437 MW-10**	EPA 9320	517953		
30497264015	**BC10436 MW-9 MS**	EPA 9320	517953		
30497264016	**BC10436 MW-9 MSD**	EPA 9320	517953		
30497264017	**BC10438 PZ-11**	EPA 9320	511755		
30497264018	**BC10439 FB-1**	EPA 9320	511755		
30497264019	**BC10440 MW-7**	EPA 9320	511755		
30497264020	**BC10441 MW-8**	EPA 9320	511755		
30497264021	**BC10442 EB-1**	EPA 9320	511755		
30497264010	**BC10433 MW-5**	Total Radium Calculation	517875		
30497264011	**BC10434 MW-6**	Total Radium Calculation	517875		
30497264012	**BC10435 MW-6 Dup**	Total Radium Calculation	517875		
30497264013	**BC10436 MW-9**	Total Radium Calculation	517875		
30497264014	**BC10437 MW-10**	Total Radium Calculation	520751		
30497264017	**BC10438 PZ-11**	Total Radium Calculation	517875		
30497264018	**BC10439 FB-1**	Total Radium Calculation	517875		
30497264019	**BC10440 MW-7**	Total Radium Calculation	517875		
30497264020	**BC10441 MW-8**	Total Radium Calculation	517875		
30497264021	**BC10442 EB-1**	Total Radium Calculation	517875		

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ocument
st be completed accurately.

30497264

Page : 1 Of

Section A
Required Client Information:

Company:	Alabama Power Company
Address:	744 Highway 87 GSC Bldg #8
	Calera, AL 35040
Email To:	tbwill@southernco.com
Phone:	205-664-6101 Fax:
Requested Due Date:	28 days

Section B
Required Project Information:

Report To:	Brooke Caton
Copy To:	Renee Jernigan & Blaine Denton
Purchase Order #:	APC10755638
Project Name:	Plant Barry Pooled Upgradient
Project Number:	WMWBARPU_1372

Attention:	Brooke Caton
Company Name:	Alabama Power Co.
Address:	744 Highway 87 GSC Bldg #8
Pace Quote:	CCR
Pace Project Manager:	Skyler Richmond
Pace Profile #:	16788

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_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	# OF CONTAINERS	Preservatives: Unpreserved	Preservatives: H2SO4	Preservatives: HNO3	Analyses Test Y/N	Analyses: EPA 9315	Analyses: EPA 9320	Analyses: Total Radium Sum	Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)
1	BC10409	MW-1	APCO-BY-UP-MW-1	APCO_Barry_Pooled_Upgradient		x		GW	G	5/31/2022	13:24	3			X		X	X	X		001, 002, 003
2	BC10410	MW-2	APCO-BY-UP-MW-2	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	14:28	1			X		X	X	X		004
3	BC10411	FB-1	APCO-BY-UP-FB-01	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	14:45	1			X		X	X	X		005
4	BC10412	MW-3	APCO-BY-UP-MW-3	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	15:22	1			X		X	X	X		006
5	BC10413	MW-3 Dup	APCO-BY-UP-MW-3	APCO_Barry_Pooled_Upgradient	x			GW	G	5/31/2022	15:22	1			X		X	X	X		007
6	BC10414	MW-4	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	16:24	1			X		X	X	X		008
7	BC10415	EB-1	APCO-BY-UP-EB-01	APCO_Barry_Pooled_Upgradient				GW	G	5/31/2022	16:45	1			X		X	X	X		009
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton/ APC GTL	6/3/2022	7:46		6-3-22	10:59	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dallas Gentry

SIGNATURE of SAMPLER: DATE Signed:

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

30497264

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:	Brooke Caton	Attention:	Brooke Caton
Address:	744 Highway 87 GSC Bldg #8	Copy To:	Renee Jernigan & Blaine Denton	Company Name:	Alabama Power Co.
	Calera, AL 35040			Address:	744 Highway 87 GSC Bldg #8
Email To:	tbwill@southernco.com	Purchase Order #:	APC10755638	Pace Quote:	CCR
Phone:	205-664-6101 Fax	Project Name:	Plant Barry Gypsum	Pace Project Manager:	Skyler Richmond
Requested Due Date:	28 days	Project Number:	WMWBARG_1373	Pace Profile #:	16788

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_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3			Y/N: Analyses Test	EPA 9315	EPA 9320	Total Radium Sum			Residual Chlorine (Y/N)	
1	BC10433	MW-5	APCO-BY-GSA-MW-5	APCO_Barry_GypsumStore				GW	G	5/31/2022	13:38	1			X				X	X	X				010
2	BC10434	MW-6	APCO-BY-GSA-MW-6	APCO_Barry_GypsumStore				GW	G	5/31/2022	14:55	1			X				X	X	X				011
3	BC10435	MW-6 Dup	APCO-BY-GSA-MW-6	APCO_Barry_GypsumStore	x			GW	G	5/31/2022	14:55	1			X				X	X	X				012
4	BC10436	MW-9	APCO-BY-GSA-MW-9	APCO_Barry_GypsumStore		x		GW	G	6/1/2022	8:45	3			X				X	X	X				013,014,015
5	BC10437	MW-10	APCO-BY-GSA-MW-10	APCO_Barry_GypsumStore				GW	G	6/1/2022	9:47	1			X				X	X	X				~~014~~ ~~015~~ 016 MS/MSD
6	BC10438	PZ-11	APCO-BY-GSA-PZ-11	APCO_Barry_GypsumStore				GW	G	6/1/2022	10:55	1			X				X	X	X				~~015~~ 017
7	BC10439	FB-1	APCO-BY-GSA-FB-01	APCO_Barry_GypsumStore				GW	G	6/1/2022	11:10	1			X				X	X	X				018
8	BC10440	MW-7	APCO-BY-GSA-MW-7	APCO_Barry_GypsumStore				GW	G	6/1/2022	12:20	1			X				X	X	X				019
9	BC10441	MW-8	APCO-BY-GSA-MW-8	APCO_Barry_GypsumStore				GW	G	6/1/2022	13:10	1			X				X	X	X				020
10	BC10442	EB-1	APCO-BY-GSA-EB-01	APCO_Barry_GypsumStore				GW	G	6/1/2022	13:35	1			X				X	X	X				021
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton/ APC GTL	6/3/2022	7:46	TJ Daugherty	6-8-22	10:15	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: TJ Daugherty

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 co. Project # 30497264

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

Label JK

Tracking #: 5701 6585 4789

LIMS Login VP

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# 1004611 / Date and Initials of person examining contents: JK 6-14-22
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			✓	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 / 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: JK / Date: 6-14-22 / Survey Meter SN: 1563

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test: Ra-228
Analyst: VAL
Date: 6/17/2022
Worklist: 67287
Matrix: WI

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2480254
MB concentration:	0.729
M/B 2 Sigma CSU:	0.340
MB MDC:	0.552
MB Numerical Performance Indicator:	4.21
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS67287	LCSD67287
Count Date:	7/7/2022	
Spike I.D.:	22-016	
Decay Corrected Spike Concentration (pCi/mL):	35.124	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.809	
Target Conc. (pCi/L, g, F):	4.344	
Uncertainty (Calculated):	0.213	
Result (pCi/L, g, F):	3.828	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.860	
Numerical Performance Indicator:	-1.14	
Percent Recovery:	88.11%	
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:	5/31/2022	
Sample I.D.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Spike I.D.:	22-016	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	35.554	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.806	
MS Target Conc.(pCi/L, g, F):	8.818	
MSD Aliquot (L, g, F):	0.810	
MSD Target Conc. (pCi/L, g, F):	8.784	
MS Spike Uncertainty (calculated):	0.432	
MSD Spike Uncertainty (calculated):	0.430	
Sample Result:	0.849	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.368	
Sample Matrix Spike Result:	9.709	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.924	
Sample Matrix Spike Duplicate Result:	9.282	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.838	
MS Numerical Performance Indicator:	0.041	
MSD Numerical Performance Indicator:	-0.358	
MS Percent Recovery:	100.48%	
MSD Percent Recovery:	96.00%	
MS Status vs Numerical Indicator:	Pass	
MSD Status vs Numerical Indicator:	Pass	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135%	
MS/MSD Lower % Recovery Limits:	60%	

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.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Sample Matrix Spike Result:	9.709	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.924	
Sample Matrix Spike Duplicate Result:	9.282	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.838	
Duplicate Numerical Performance Indicator:	0.315	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	4.56%	
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:
*The method blank result is below the reporting limit for this analysis and is acceptable.

6/21/22

7/8/22

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	JC2
Date:	6/19/2022
Worklist:	67288
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2480257
MB concentration:	0.215
M/B Counting Uncertainty:	0.111
MB MDC:	0.148
MB Numerical Performance Indicator:	3.80
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS67288	LCSD67288
Count Date:	7/11/2022	7/11/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.026	24.026
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.505	0.506
Target Conc. (pCi/L, g, F):	4.756	4.747
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	4.603	4.462
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.465	0.446
Numerical Performance Indicator:	-0.64	-1.25
Percent Recovery:	96.77%	93.98%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	5/31/2022	
Sample I.D.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.027	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.308	
MS Target Conc.(pCi/L, g, F):	15.619	
MSD Aliquot (L, g, F):	0.275	
MSD Target Conc. (pCi/L, g, F):	17.494	
MS Spike Uncertainty (calculated):	0.187	
MSD Spike Uncertainty (calculated):	0.210	
Sample Result:	0.489	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.216	
Sample Matrix Spike Result:	16.140	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.094	
Sample Matrix Spike Duplicate Result:	19.283	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.262	
MS Numerical Performance Indicator:	0.054	
MSD Numerical Performance Indicator:	1.964	
MS Percent Recovery:	100.20%	
MSD Percent Recovery:	107.43%	
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%	

Duplicate Sample Assessment		
Sample I.D.:	LCS67288	
Duplicate Sample I.D.	LCSD67288	
Sample Result (pCi/L, g, F):	4.603	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.465	
Sample Duplicate Result (pCi/L, g, F):	4.462	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.446	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.429	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	2.93%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.	30497264001	
Sample MS I.D.	30497264002	
Sample MSD I.D.	30497264003	
Sample Matrix Spike Result:	16.140	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	1.094	
Sample Matrix Spike Duplicate Result:	19.283	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.262	
Duplicate Numerical Performance Indicator:	-3.687	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	6.96%	
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:
*The method blank result is below the reporting limit for this analysis and is acceptable.

JC 6/19/22
CW 7/11/22

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test: Ra-228
Analyst: VAL
Date: 7/18/2022
Worklist: 67725
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2510666
MB concentration:	0.578
M/B 2 Sigma CSU:	0.351
MB MDC:	0.645
MB Numerical Performance Indicator:	3.22
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS67725	LCSD67725
Count Date:	7/21/2022	
Spike I.D.:	22-016	
Decay Corrected Spike Concentration (pCi/mL):	34.962	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.806	
Target Conc. (pCi/L, g, F):	4.335	
Uncertainty (Calculated):	0.212	
Result (pCi/L, g, F):	3.652	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.852	
Numerical Performance Indicator:	-1.53	
Percent Recovery:	84.25%	
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:	6/1/2022	
Sample I.D.	30497264014	
Sample MS I.D.	30497264015	
Sample MSD I.D.	30497264016	
Spike I.D.:	22-016	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	35.545	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.805	
MS Target Conc.(pCi/L, g, F):	8.827	
MSD Aliquot (L, g, F):	0.801	
MSD Target Conc. (pCi/L, g, F):	8.872	
MS Spike Uncertainty (calculated):	0.433	
MSD Spike Uncertainty (calculated):	0.435	
Sample Result:	1.317	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.480	
Sample Matrix Spike Result:	9.234	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.834	
Sample Matrix Spike Duplicate Result:	8.118	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.647	
MS Numerical Performance Indicator:	-0.916	
MSD Numerical Performance Indicator:	-2.293	
MS Percent Recovery:	89.70%	
MSD Percent Recovery:	76.66%	
MS Status vs Numerical Indicator:	Pass	
MSD Status vs Numerical Indicator:	Warning	
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.	30497264014
Sample MS I.D.	30497264015
Sample MSD I.D.	30497264016
Sample Matrix Spike Result:	9.234
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.834
Sample Matrix Spike Duplicate Result:	8.118
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.647
Duplicate Numerical Performance Indicator:	0.888
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	15.68%
MS/ MSD Duplicate Status vs Numerical Indicator:	Pass
MS/ MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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

Comments:
*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

VAM 7/22/22

Quality Control Sample Performance Assessment

Pace Analytical
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Test:	Ra-226
Analyst:	RMS
Date:	7/13/2022
Worklist:	67726
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2510667
MB concentration:	-0.024
M/B Counting Uncertainty:	0.191
MB MDC:	0.568
MB Numerical Performance Indicator:	-0.25
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS67726	LCSD67726
Count Date:	7/21/2022	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.025	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.191	
Target Conc. (pCi/L, g, F):	12.604	
Uncertainty (Calculated):	0.151	
Result (pCi/L, g, F):	12.506	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.306	
Numerical Performance Indicator:	-0.15	
Percent Recovery:	99.23%	
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:	6/1/2022	
Sample I.D.	30497264014	
Sample MS I.D.	30497264015	
Sample MSD I.D.	30497264016	
Spike I.D.:	19-033	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	24.027	
Spike Volume Used in MS (mL):	0.20	
Spike Volume Used in MSD (mL):	0.20	
MS Aliquot (L, g, F):	0.187	
MS Target Conc.(pCi/L, g, F):	25.764	
MSD Aliquot (L, g, F):	0.187	
MSD Target Conc. (pCi/L, g, F):	25.635	
MS Spike Uncertainty (calculated):	0.309	
MSD Spike Uncertainty (calculated):	0.308	
Sample Result:	0.945	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.536	
Sample Matrix Spike Result:	36.994	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	2.547	
Sample Matrix Spike Duplicate Result:	34.093	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	2.498	
MS Numerical Performance Indicator:	7.691	
MSD Numerical Performance Indicator:	5.722	
MS Percent Recovery:	139.92%	
MSD Percent Recovery:	129.31%	
MS Status vs Numerical Indicator:	N/A	
MSD Status vs Numerical Indicator:	N/A	
MS Status vs Recovery:	MS High****	
MSD Status vs Recovery:	MSD High****	
MS/MSD Upper % Recovery Limits:	125%	
MS/MSD Lower % Recovery Limits:	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.	30497264014	
Sample MS I.D.	30497264015	
Sample MSD I.D.	30497264016	
Sample Matrix Spike Result:	36.994	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	2.547	
Sample Matrix Spike Duplicate Result:	34.093	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	2.498	
Duplicate Numerical Performance Indicator:	1.594	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	7.88%	
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:

****If all other QC criteria pass, this batch is acceptable. The matrix spike duplicate result indicates a possible bias for this sample only and may not be applicable to any other samples in this analytical batch. Narrated

LAM 7/22/22

Appendix D

Southern Company

Appendix D. Horizontal Groundwater Flow Velocity Calculations
Plant Barry Gypsum Pond

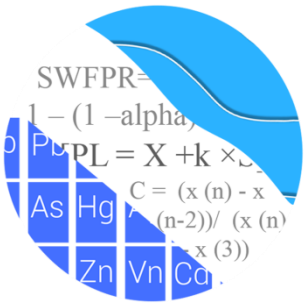
2022 First Semi-Annual Monitoring Event								
Date of Measurement	**MW-2**	**MW-7**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity**	**Calculated Groundwater Flow Velocity**
	h_1 (ft)	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K (ft/d)**	**n**	**(ft/d)**	**(ft/yr)**
5/23/2022	6.03	5.72	1138.82	0.00027	9.40	0.25	0.010	3.7

Notes:
The hydraulic conductivity value utilized in this caclulation was derived from an aquifer pumping test previously conducted
ft = feet; ft/d = feet per day; ft/ft = feet per foot; ft/yr = feet per year

Appendix E

GROUNDWATER STATS CONSULTING

July 27, 2022



Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Barry Gypsum Pond
1st Semi-Annual Analysis – June 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 June 2022 1st semi-annual sample event for Alabama Power Company's Plant Barry 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 site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4
- **Downgradient wells:** BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-MW-10, and BY-GSA-PZ-11

Note that BY-GSA-PZ-11 was converted from a piezometer to a downgradient monitoring well and currently has 5 samples. Therefore, data are analyzed along with neighboring downgradient wells for Appendix IV constituents using confidence intervals which require a minimum of 4 samples. However, data from this well are not yet analyzed for Appendix III constituents using prediction limits, which require a minimum of 8 samples.

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 following constituents:

> **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
> **Appendix IV** (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). A substitution of the most recent reporting limit is used for non-detect data. Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on analysis of the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 15
- # Background Samples (Interwell): 72
- # Constituents: 7
- # Downgradient wells: 6

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 chloride and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, fluoride, pH, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (USEPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the 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. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Update – Conducted in Fall 2021

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, were updated during the Fall 2021 by testing for the appropriateness of consolidating new sampling observations with the screened background data. This process is described below and requires a minimum of four new data points. Historical data were evaluated for updating with newer data through May 2021 through the use of time series graphs to identify potential outliers when necessary, as well as the Mann Whitney test for equality of medians. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate chloride and sulfate at all wells due to natural spatial variation for these parameters.

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. Interwell prediction limits are used to evaluate boron, calcium, fluoride, pH and TDS.

Outlier Analysis

Proposed background data through May 2021 were reviewed to identify any newly suspected outliers at all wells for chloride and sulfate, and through October 2021 at upgradient wells for boron, calcium, fluoride, pH, and TDS. No new outliers were noted (Figure C). 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 (i.e., lower) from a regulatory perspective. Also, outliers that are not identified as significant by Tukey's test may be identified visually. Typically, the most recent value is not flagged as an outlier in the event that it precedes future trends. All flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. A summary of flagged outliers follows this report (Figure C).

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 May 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

- Sulfate: BY-GSA-MW-8 and BY-GSA-MW-9

Decrease

- Chloride: BY-UP-MW-4 (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.

The record for chloride at upgradient well BY-GSA-MW-4 was updated since data at upgradient wells represent naturally occurring groundwater quality unimpacted by the facility. Additionally, the decreasing shift between historical and compliance data was small and signifies lower concentrations, which subsequently results in a more conservative (i.e., lower) statistical limit.

Regarding the statistically significant increases in medians for sulfate at wells BY-GSA-MW-8 and BY-GSA-MW-9, the group of new measurements were similar to those observed historically for both wells, and similar to reported concentrations of sulfate in at least one upgradient well which typically indicates natural variation in groundwater quality rather than a result of practices from the facility. Therefore, these records were updated with more recent data.

Trend Tests – Upgradient Wells

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. The following upgradient well/constituent pairs were found to have statistically significant trends:

Increasing

- Calcium: BY-UP-MW-3 and BY-UP-MW-4
- Fluoride: BY-UP-MW-2
- TDS: BY-UP-MW-1, BY-UP-MW-2, and BY-UP-MW-4

Decreasing

- pH: BY-UP-MW-2, BY-UP-MW-3 and BY-UP-MW-4

The median slopes for calcium, pH and TDS at the above wells were small relative to average concentrations at these wells and reported measurements were similar across all upgradient wells. In the case of fluoride, the increasing trend is a result of non-detects in the more recent portion of the record compared to trace values reported in the historical portion of the record. Therefore, no adjustments were required to any of the records.

Evaluation of Appendix III Parameters – May/June 2022

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. The most recent sample from the same well is compared to its respective background. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Background data are re-evaluated when a minimum of 4 compliance samples are available.

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 determine whether initial exceedances are present.

Prediction Limits – May/June 2022

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for chloride and sulfate using screened background data through May 2021 at each well (Figure D). The May/June 2022 sample at each well was compared to its respective intrawell prediction limit. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs, and a summary of all flagged outliers follows this report (Figure C).

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, fluoride, pH, and TDS (Figure E).

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. A summary of the prediction limits results may be found in the Prediction Limit Summary tables following this letter. The following exceedances were noted for the interwell and intrawell prediction limits:

Intrawell:

- Chloride: BY-GSA-MW-5
- Sulfate: BY-GSA-MW-5

Interwell:

- Boron: BY-GSA-MW-5 and BY-GSA-MW-6
- Calcium: BY-GSA-MW-5 and BY-GSA-MW-6
- TDS: BY-GSA-MW-5 and BY-GSA-MW-6

Trend Tests

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:

- Calcium: BY-UP-MW-3 and BY-UP-MW-4 (both upgradient)
- TDS: BY-UP-MW-1 and BY-UP-MW-4 (both upgradient)

Decreasing:

- Chloride: BY-UP-MW-2 and BY-UP-MW-4 (both upgradient)

Evaluation of Appendix IV Parameters – May/June 2022

Data from upgradient wells for Appendix IV parameters were reassessed for outliers during the previous analysis. A summary of previously flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during the 2021 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 October 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 J) in the confidence interval comparisons described below.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through June 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 with 100% non-detects did not require statistics and were, therefore, deselected prior to construction confidence intervals. A list of deselected well/constituent pairs also 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 Barry Gypsum Pond. If you have any questions or comments, please feel free to contact us.

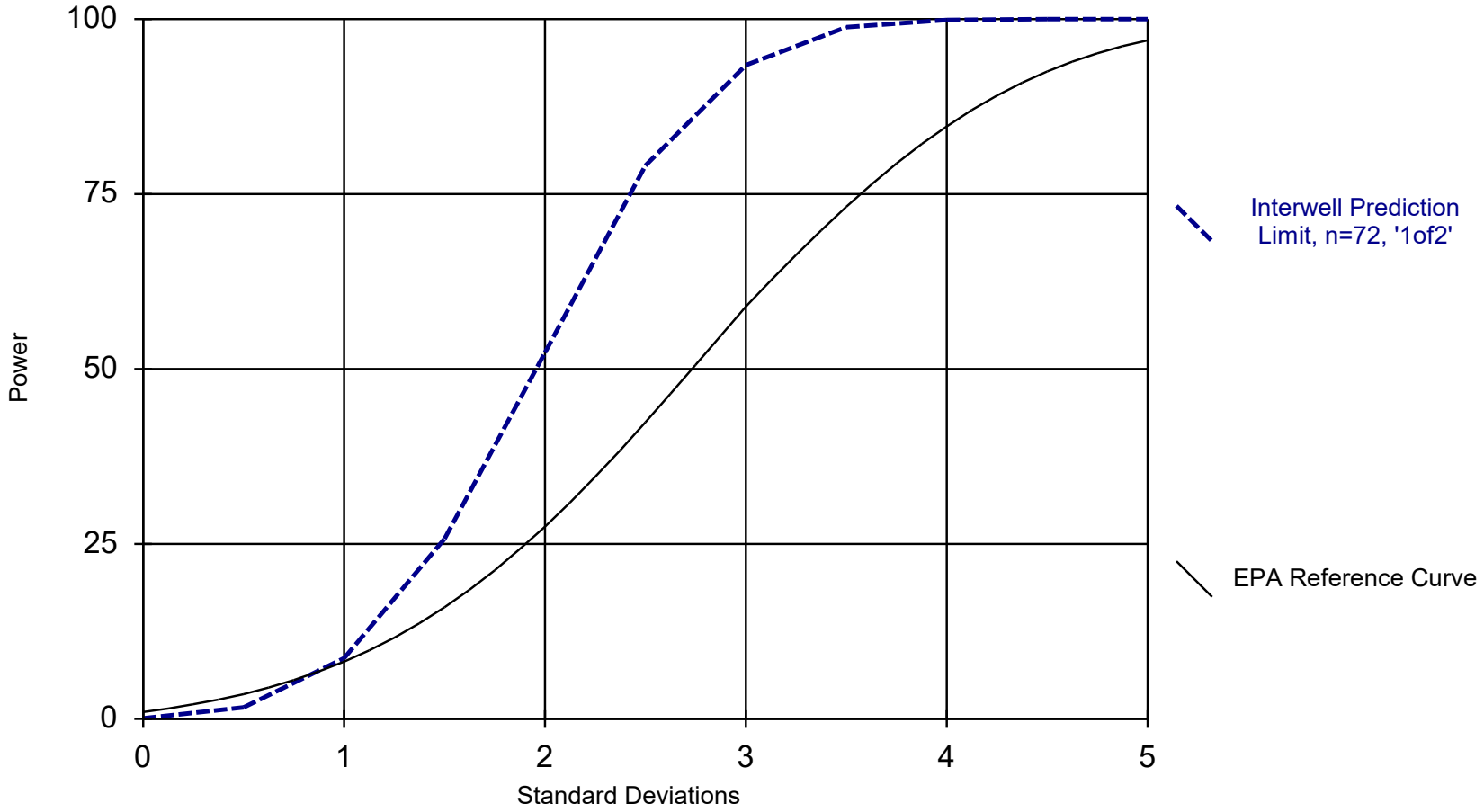
For Groundwater Stats Consulting,

Easton Rayner
Groundwater Analyst

Andrew T. Collins
Project Manager

Kristina Rayner
Groundwater Analyst

Interwell Power Curve

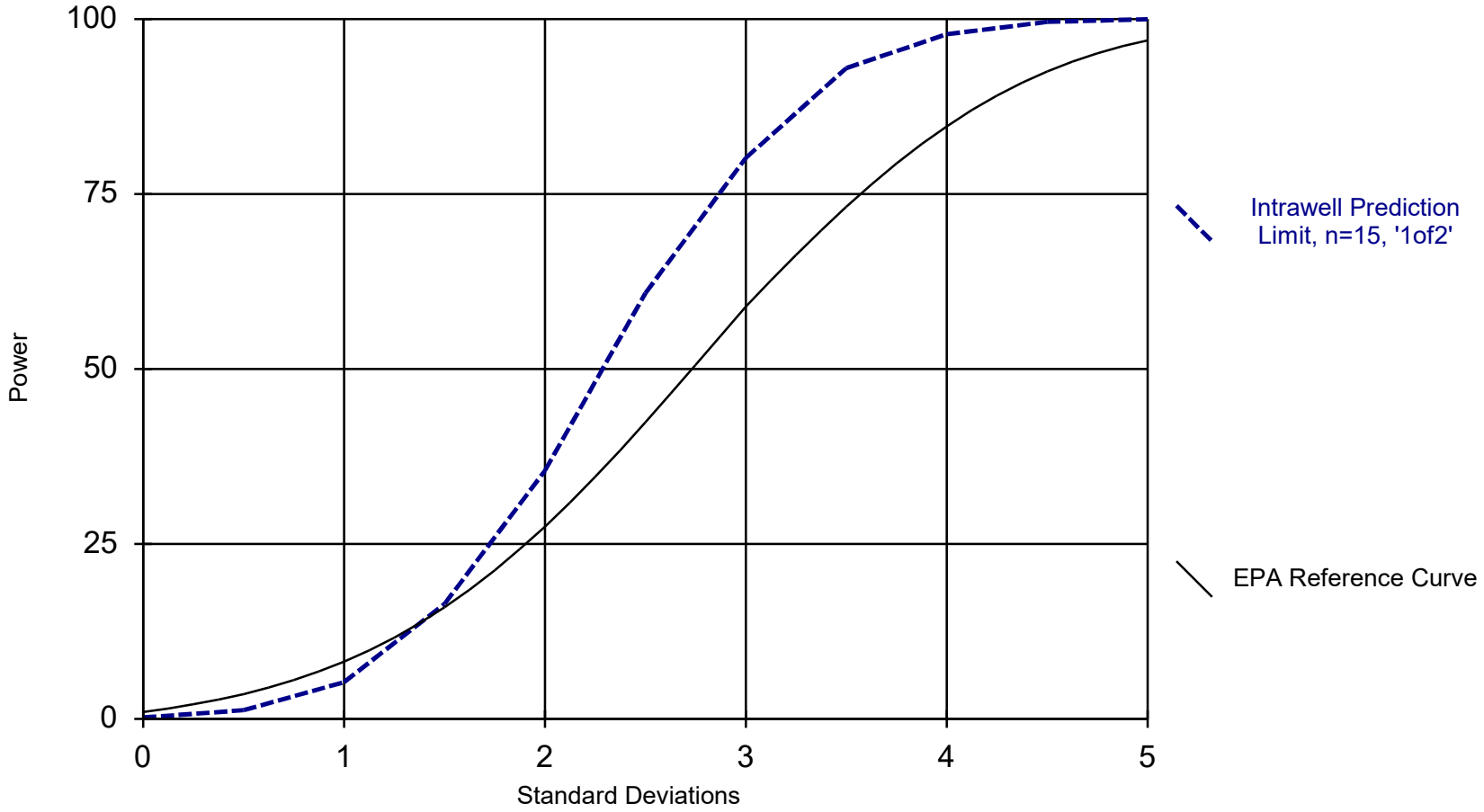


Kappa = 1.866, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 7/27/2022 11:16 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Intrawell Power Curve



Kappa = 2.25, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 7/20/2022 4:10 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

100% Non-Detects: Appendix IV Downgradient

Analysis Run 7/26/2022 10:48 PM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Antimony (mg/L)
BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Beryllium (mg/L)
BY-GSA-MW-10, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Cadmium (mg/L)
BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Fluoride (mg/L)
BY-GSA-MW-5, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-PZ-11

Lead (mg/L)
BY-GSA-MW-8

Lithium (mg/L)
BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Mercury (mg/L)
BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Molybdenum (mg/L)
BY-GSA-MW-10, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-9, BY-GSA-PZ-11

Thallium (mg/L)
BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	**BY-GSA-MW-5**	**6.23**	**n/a**	**5/31/2022**	**7.83**	**Yes**	**16**	**n/a**	**n/a**	**6.25**	**n/a**	**n/a**	**0.006456**	**NP Intra (normality) 1 of 2**
Sulfate (mg/L)	**BY-GSA-MW-5**	**34.74**	**n/a**	**5/31/2022**	**48.7**	**Yes**	**16**	**2.238**	**0.4647**	**0**	**None**	**x^(1/3)**	**0.001254**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-UP-MW-1	8.264	n/a	5/31/2022	1.93	No	16	1.897	0.4435	6.25	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	6/1/2022	3.35	No	16	3.79	0.6038	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.698	n/a	5/31/2022	2.17	No	16	3.416	1.035	6.25	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	5/31/2022	3.39	No	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	5/31/2022	3.31	No	16	1.912	0.08933	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	**BY-GSA-MW-5**	**6.23**	**n/a**	**5/31/2022**	**7.83**	**Yes**	**16**	**n/a**	**n/a**	**6.25**	**n/a**	**n/a**	**0.006456**	**NP Intra (normality) 1 of 2**
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	5/31/2022	7.22	No	16	4.996	1.21	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	6/1/2022	14.7	No	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	6/1/2022	5.38	No	16	4.673	0.412	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	6/1/2022	4.29	No	16	6.335	2.163	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	5/31/2022	12.8	No	16	3.458	0.85	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	6/1/2022	11.4	No	16	9.999	1.445	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	5/31/2022	8.09	No	16	6.282	1.406	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	5/31/2022	7.02	No	16	7.496	0.6224	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	5/31/2022	7.94	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate (mg/L)	**BY-GSA-MW-5**	**34.74**	**n/a**	**5/31/2022**	**48.7**	**Yes**	**16**	**2.238**	**0.4647**	**0**	**None**	**x^(1/3)**	**0.001254**	**Param Intra 1 of 2**
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	5/31/2022	38.6	No	15	18.13	11.34	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	6/1/2022	3.4	No	16	3.349	0.8938	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	6/1/2022	5.11	No	16	3.852	0.8066	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	6/1/2022	13	No	16	8.877	2.273	0	None	No	0.001254	Param Intra 1 of 2

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**BY-GSA-MW-5**	**0.188**	**n/a**	**5/31/2022**	**0.939**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**5/31/2022**	**0.685**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Calcium, total (mg/L)	**BY-GSA-MW-5**	**2.067**	**n/a**	**5/31/2022**	**8.52**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Calcium, total (mg/L)	**BY-GSA-MW-6**	**2.067**	**n/a**	**5/31/2022**	**9.98**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
TDS (mg/L)	**BY-GSA-MW-5**	**58**	**n/a**	**5/31/2022**	**104**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-GSA-MW-6**	**58**	**n/a**	**5/31/2022**	**85.3**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	6/1/2022	0.0493J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-GSA-MW-5**	**0.188**	**n/a**	**5/31/2022**	**0.939**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**5/31/2022**	**0.685**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	6/1/2022	0.0933J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.067	n/a	6/1/2022	1.04	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	**BY-GSA-MW-5**	**2.067**	**n/a**	**5/31/2022**	**8.52**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Calcium, total (mg/L)	**BY-GSA-MW-6**	**2.067**	**n/a**	**5/31/2022**	**9.98**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Calcium, total (mg/L)	BY-GSA-MW-7	2.067	n/a	6/1/2022	1.27	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.067	n/a	6/1/2022	0.94	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.067	n/a	6/1/2022	1.55	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	5/31/2022	4.61	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	5/31/2022	4.98	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	6/1/2022	4.03	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	6/1/2022	4.49	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	6/1/2022	40.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-GSA-MW-5**	**58**	**n/a**	**5/31/2022**	**104**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-GSA-MW-6**	**58**	**n/a**	**5/31/2022**	**85.3**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	BY-GSA-MW-7	58	n/a	6/1/2022	41.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	6/1/2022	30.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	6/1/2022	39.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2

Trend Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	**BY-UP-MW-3 (bg)**	**0.07505**	**86**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium, total (mg/L)	**BY-UP-MW-4 (bg)**	**0.1262**	**111**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	**BY-UP-MW-2 (bg)**	**-0.385**	**-100**	**-68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	**BY-UP-MW-4 (bg)**	**-0.05925**	**-69**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-UP-MW-1 (bg)**	**3.147**	**72**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-UP-MW-4 (bg)**	**3.695**	**95**	**68**	**Yes**	**18**	**22.22**	**n/a**	**n/a**	**0.01**	**NP**

Trend Test - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-UP-MW-1 (bg)	0	-19	-68	No	18	44.44	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	26	68	No	18	83.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	25	68	No	18	88.89	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-5	0.008619	18	68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.01595	11	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	0.02597	19	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.06598	57	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	**BY-UP-MW-3 (bg)**	**0.07505**	**86**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium, total (mg/L)	**BY-UP-MW-4 (bg)**	**0.1262**	**111**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium, total (mg/L)	BY-GSA-MW-5	-0.1695	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-1.153	-35	-68	No	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1727	-38	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	**BY-UP-MW-2 (bg)**	**-0.385**	**-100**	**-68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.04978	-67	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	**BY-UP-MW-4 (bg)**	**-0.05925**	**-69**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	BY-GSA-MW-5	0.1679	24	68	No	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	1.548	45	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0	0	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.07308	-27	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.02454	-6	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	-0.7242	-22	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-UP-MW-1 (bg)**	**3.147**	**72**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-UP-MW-2 (bg)	1.703	57	68	No	18	11.11	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	1.36	45	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-UP-MW-4 (bg)**	**3.695**	**95**	**68**	**Yes**	**18**	**22.22**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-GSA-MW-5	0.6798	5	68	No	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-6.309	-28	-68	No	18	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

BARRY GYPSUM POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.

4. GWPS established during second semi-annual sampling event in 2021.

Confidence Interval Summary Table - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-GSA-MW-10	0.0002	0.00009	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.00053	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.000821	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-7	0.00024	0.000177	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-8	0.0002	0.00016	0.01	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.0002	0.0001	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-PZ-11	0.0002	0.000111	0.01	No	5	60	No	0.031	NP (normality)
Barium (mg/L)	BY-GSA-MW-10	0.1332	0.1148	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.226	0.0684	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.1825	0.08783	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.09037	0.04733	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.04899	0.04121	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1737	0.146	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08233	0.03831	2	No	5	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.00066	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-7	0.00102	0.000464	0.004	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.001	0.0000867	0.005	No	8	62.5	No	0.004	NP (normality)
Cadmium (mg/L)	BY-GSA-MW-6	0.001	0.00011	0.005	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-10	0.01	0.000695	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.00221	0.1	No	8	50	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-6	0.01	0.00223	0.1	No	8	25	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-7	0.01	0.00131	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-8	0.01	0.00209	0.1	No	8	12.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-9	0.01	0.000783	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003411	0.002233	0.1	No	5	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002657	0.002223	0.006	No	8	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.00606	0.00217	0.006	No	8	50	No	0.004	NP (Cohens/xfrm)
Cobalt (mg/L)	BY-GSA-MW-6	0.006267	0.00304	0.006	No	8	25	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000437	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.00131	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	5	40	No	0.031	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.163	0.8366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.309	0.4039	5	No	8	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.368	0.7306	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.202	0.03543	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.412	0.2366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.72	5	No	8	0	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.274	0.3067	5	No	5	0	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.125	0.08	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.125	0.0591	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.125	0.07	4	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.005	0.0001	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.005	0.0000994	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-6	0.005	0.00011	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.005	0.0000798	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.005	0.00023	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.005	0.00012	0.015	No	5	40	No	0.031	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	87.5	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.0002	0.0001	0.1	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.0002	0.00008	0.1	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.00125	0.000778	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-5	0.0217	0.00102	0.05	No	8	50	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-6	0.01143	0.003687	0.05	No	8	0	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.00102	0.00058	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.00102	0.00052	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.00204	0.00102	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.001376	0.0007653	0.05	No	5	40	No	0.01	Param.

FIGURE A.

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Hollow symbols indicate censored values.

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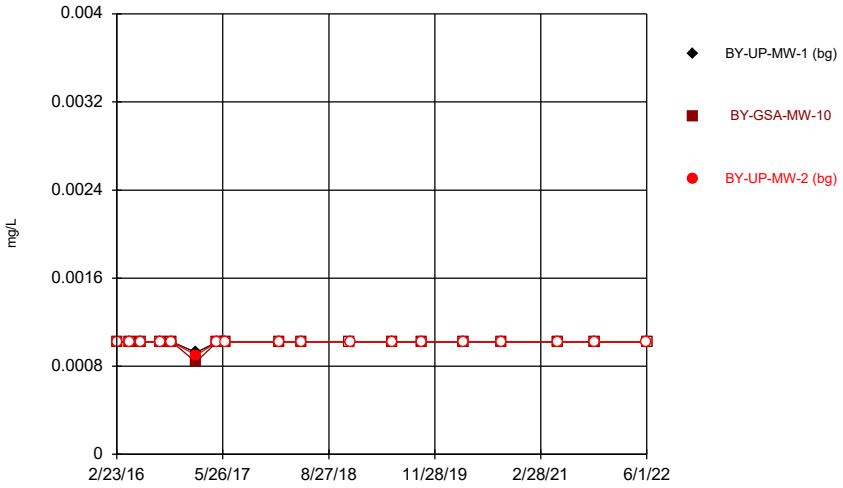

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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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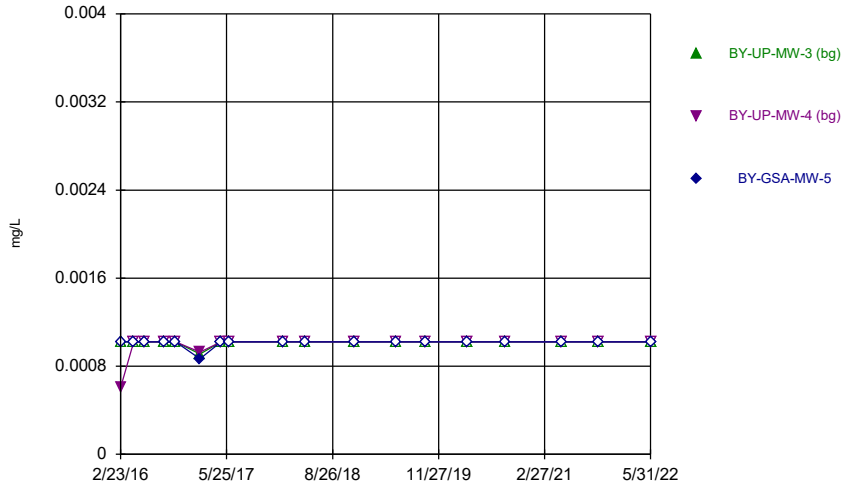

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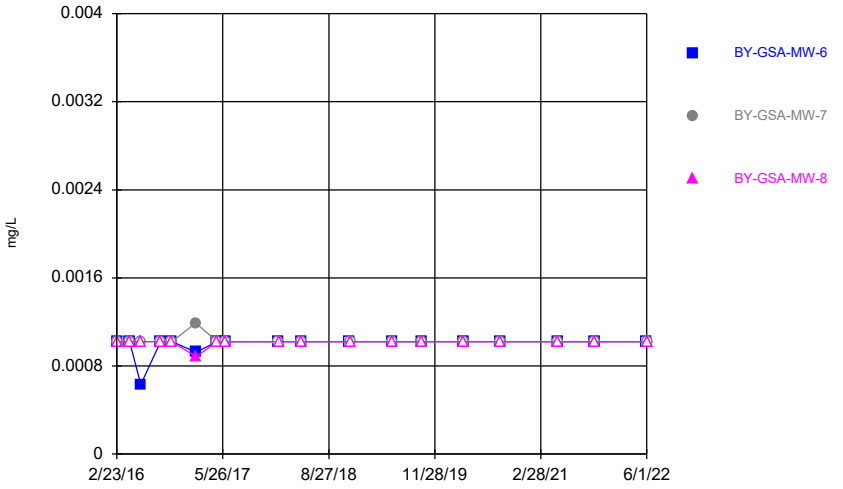

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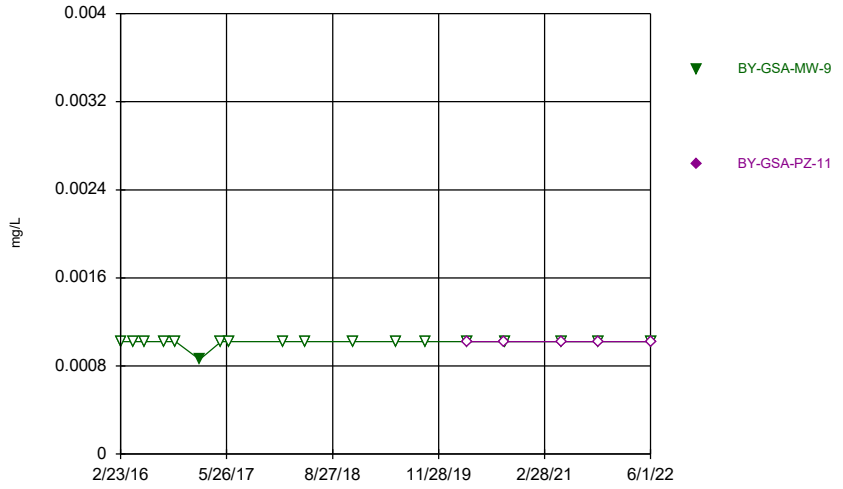

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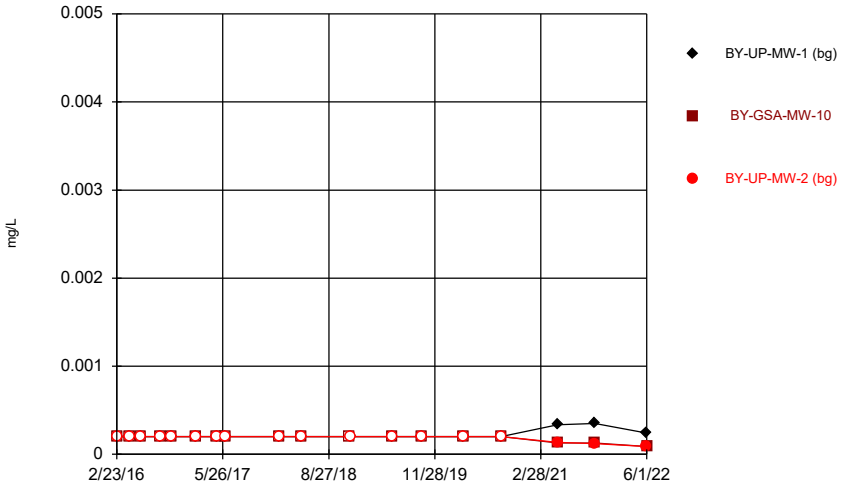

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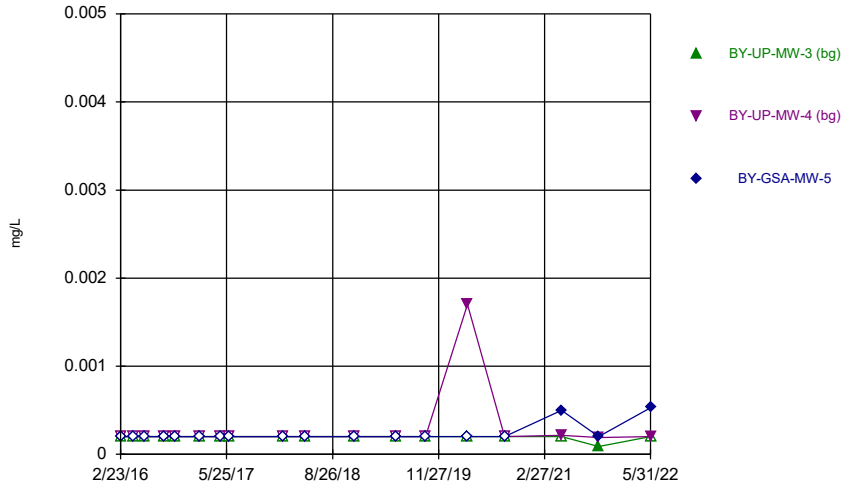

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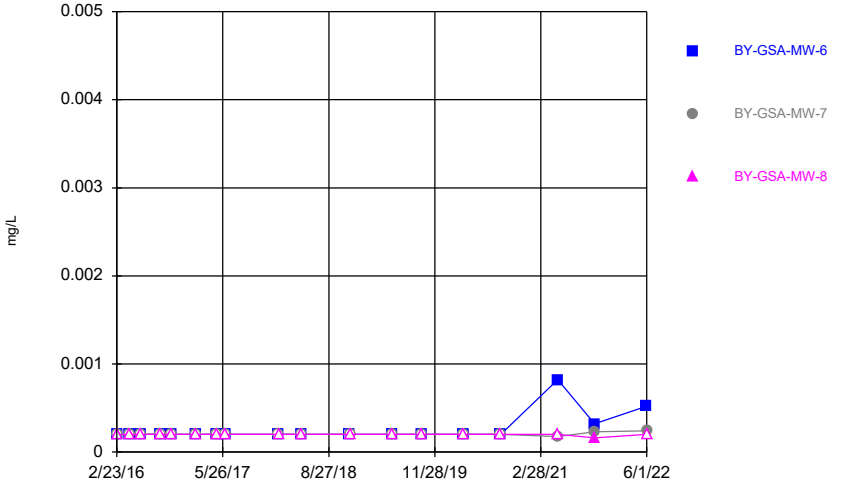

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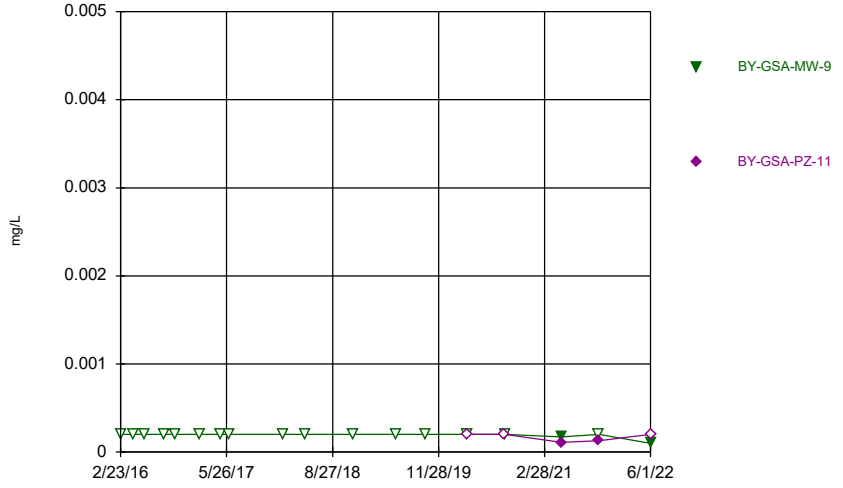

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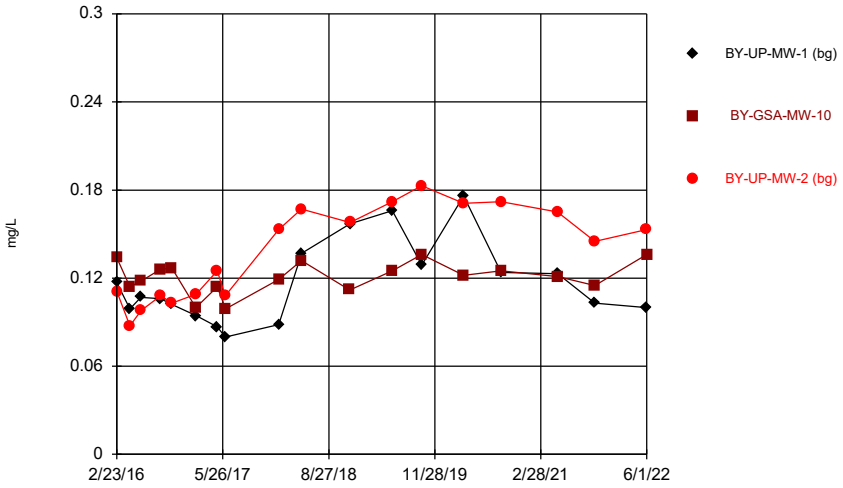
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series



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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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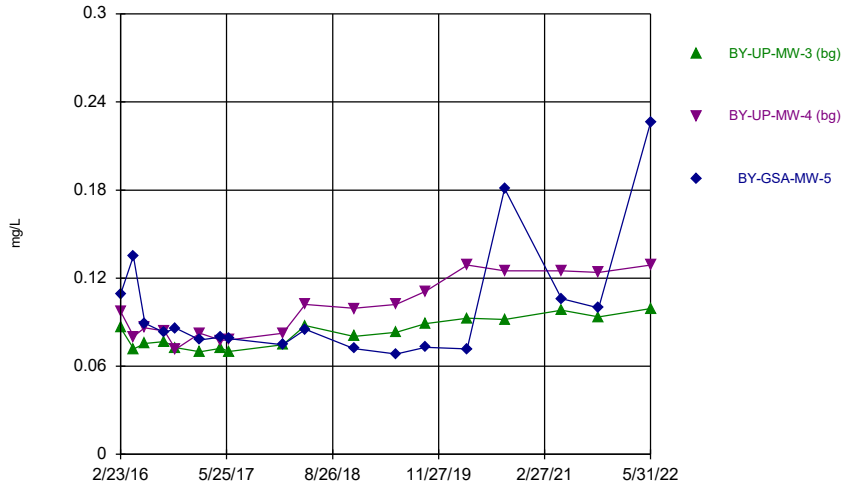

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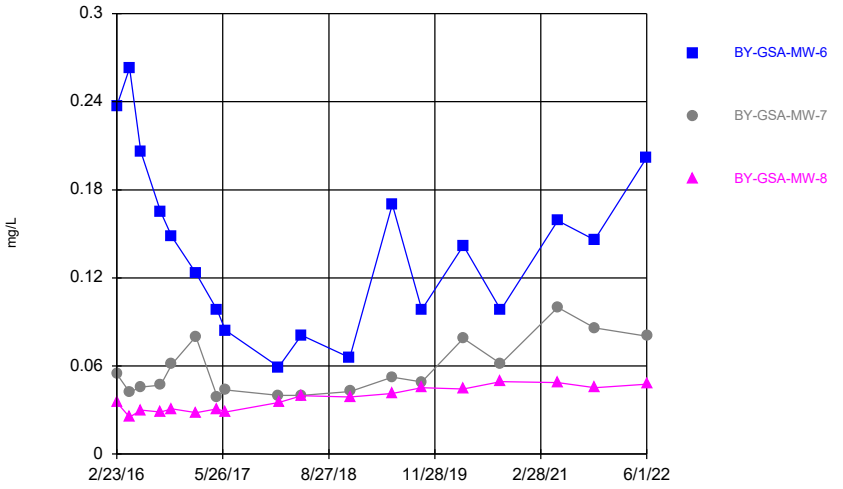

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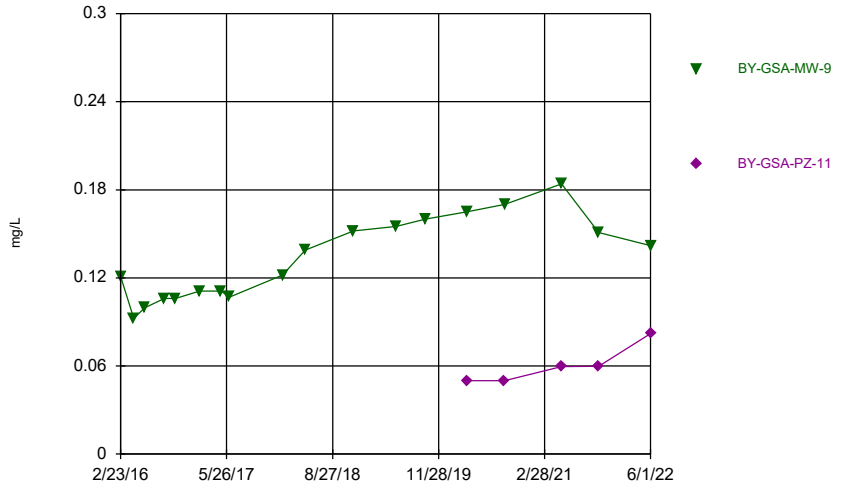

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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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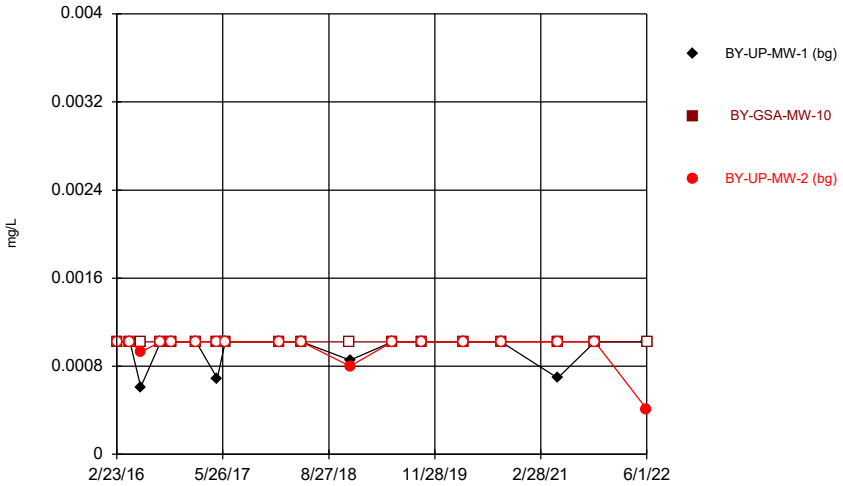

Constituent: Beryllium Analysis Run 7/26/2022 10:19 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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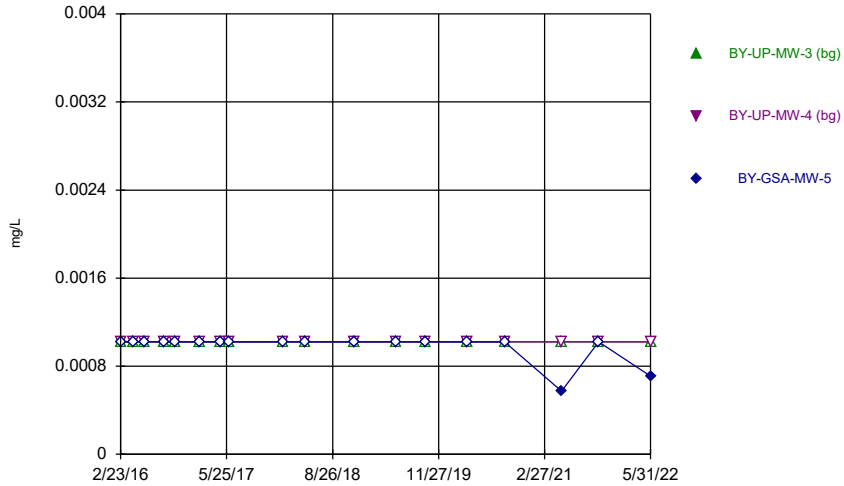
Hollow symbols indicate censored values.

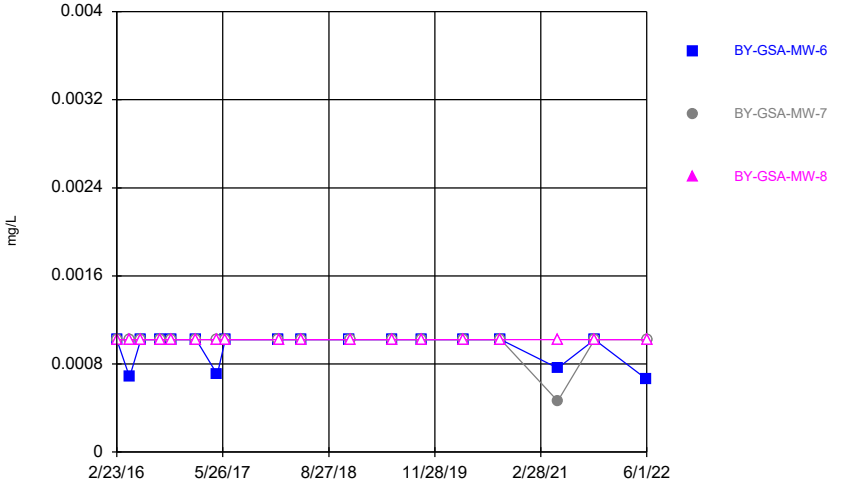
Time Series



Constituent: Beryllium Analysis Run 7/26/2022 10:19 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

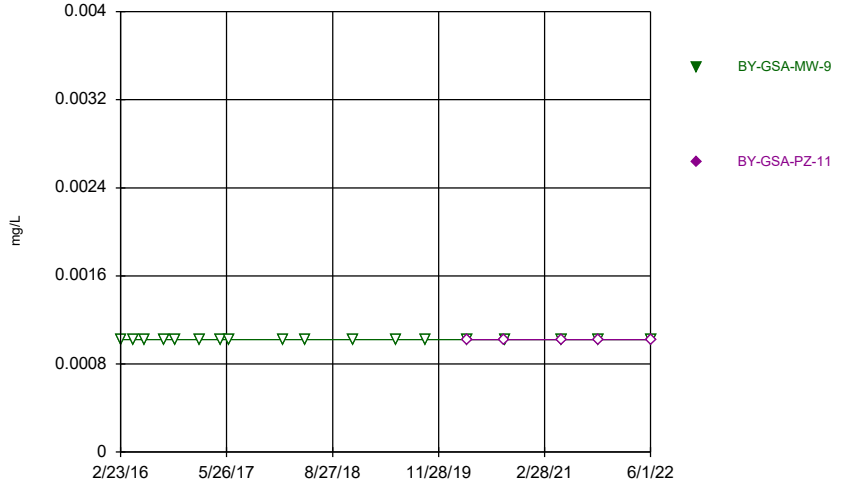
Time Series



Constituent: Beryllium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

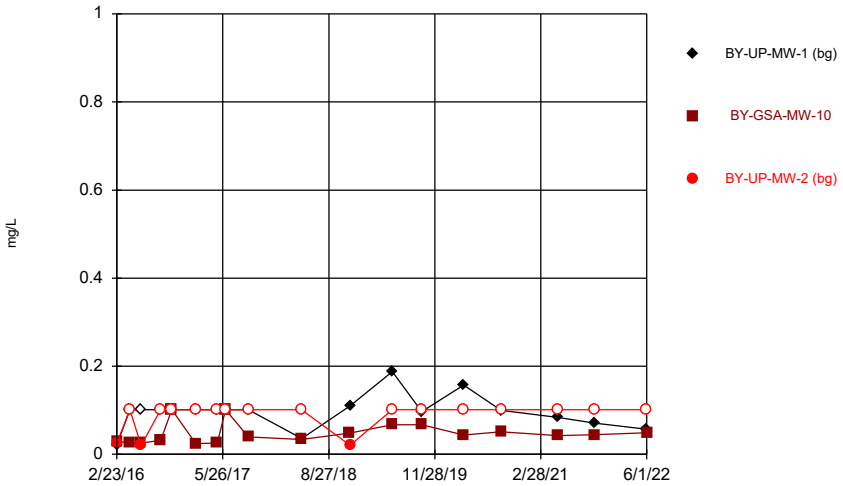
Time Series



Constituent: Beryllium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

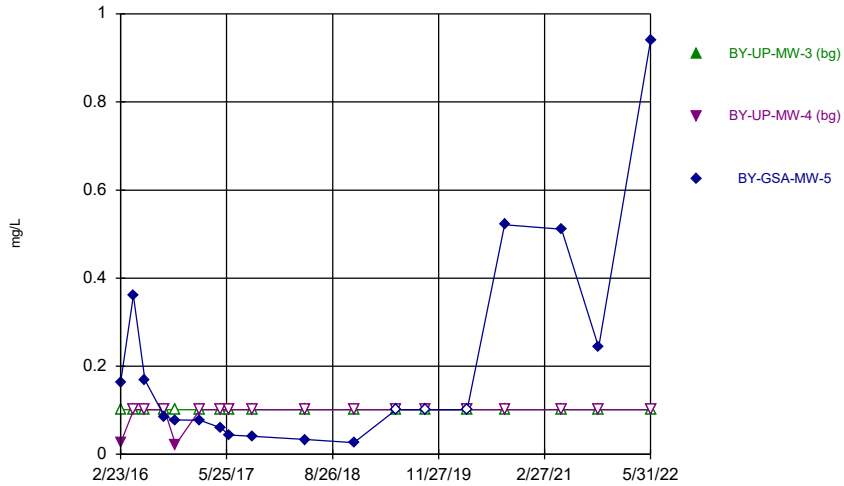
Time Series



Constituent: Boron Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

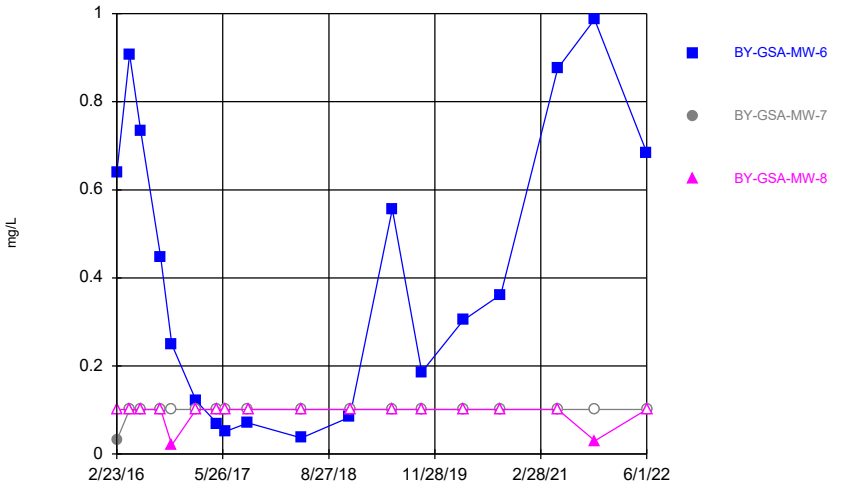
Time Series



Constituent: Boron Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

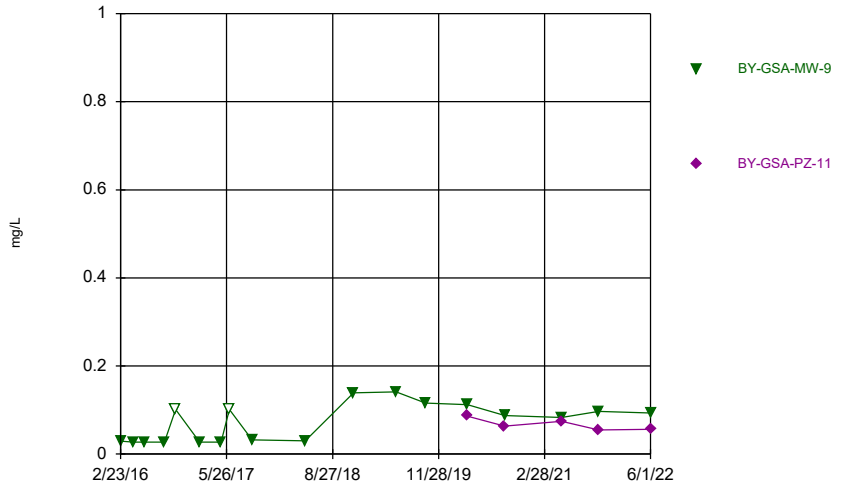
Time Series



Constituent: Boron Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

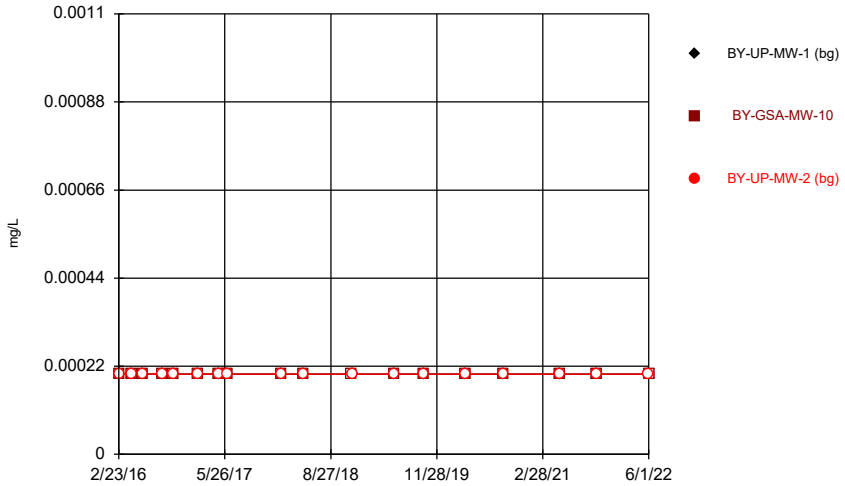
Time Series



Constituent: Boron Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

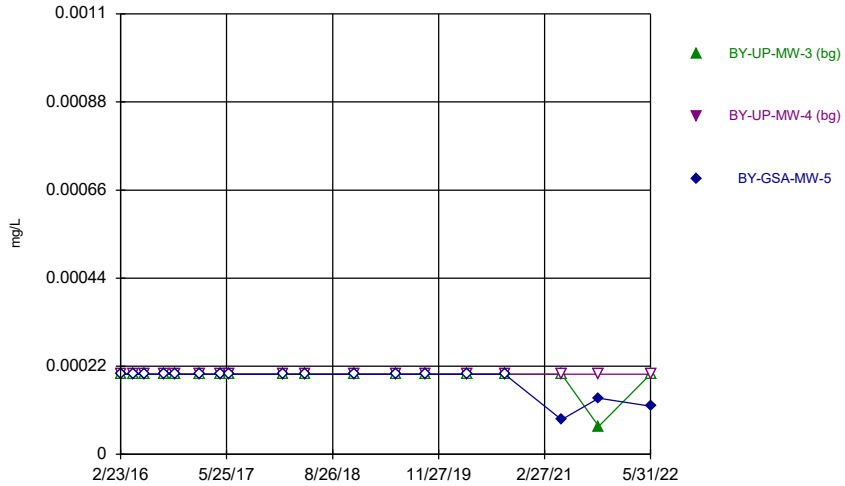
Time Series



Constituent: Cadmium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

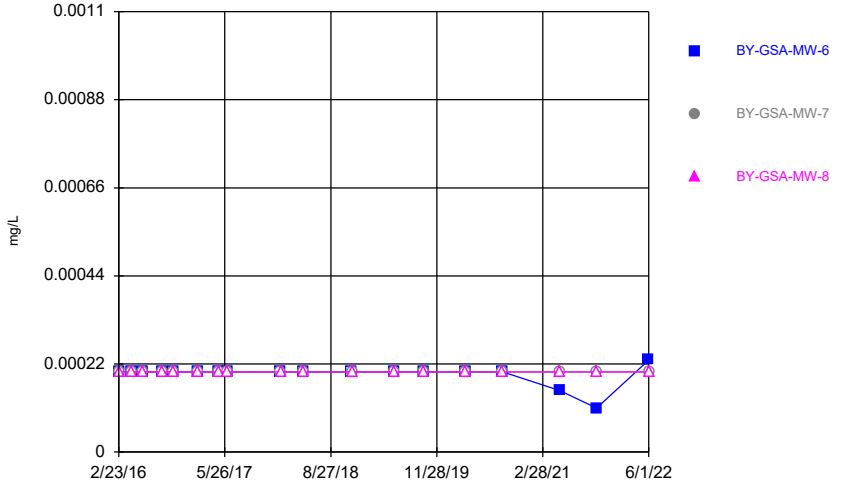
Time Series



Constituent: Cadmium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

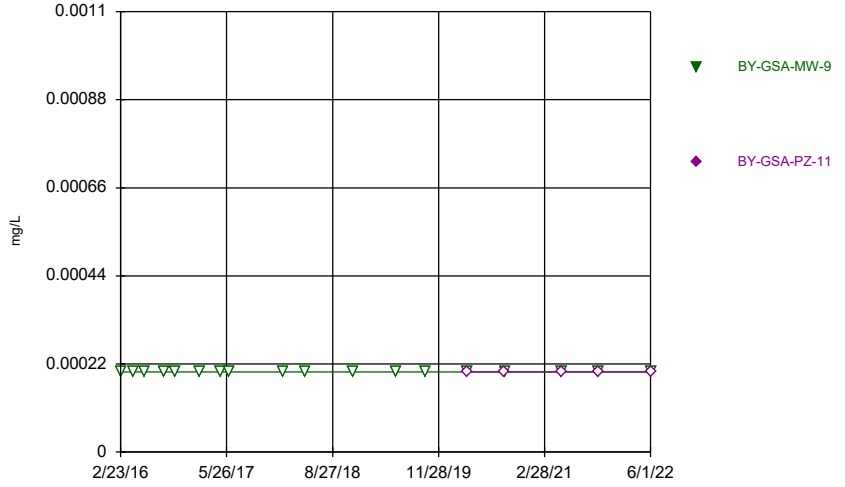
Time Series



Constituent: Cadmium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

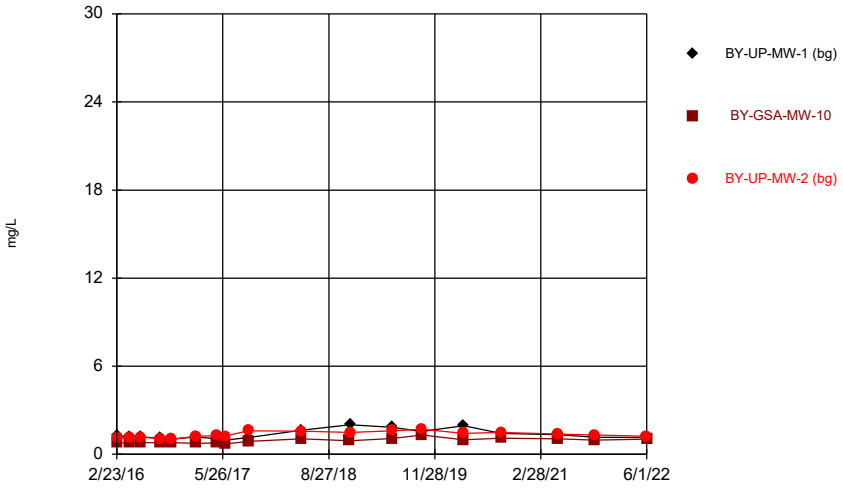
Time Series



Constituent: Cadmium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

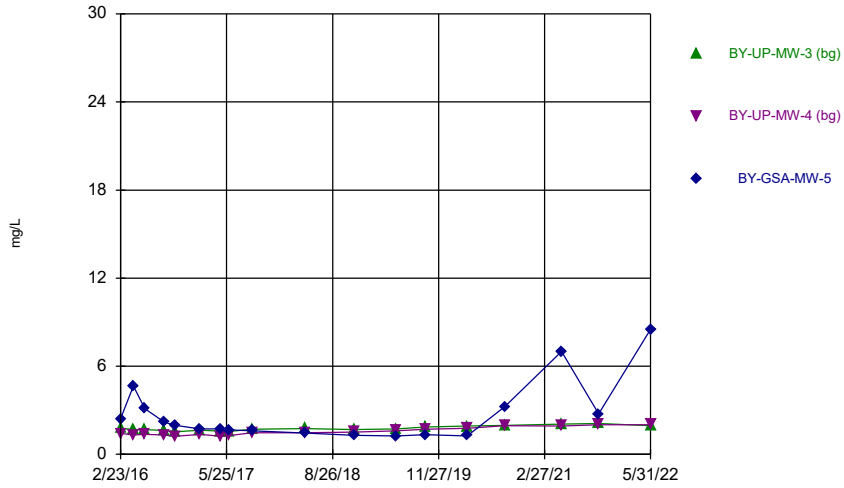


Constituent: Calcium, total Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

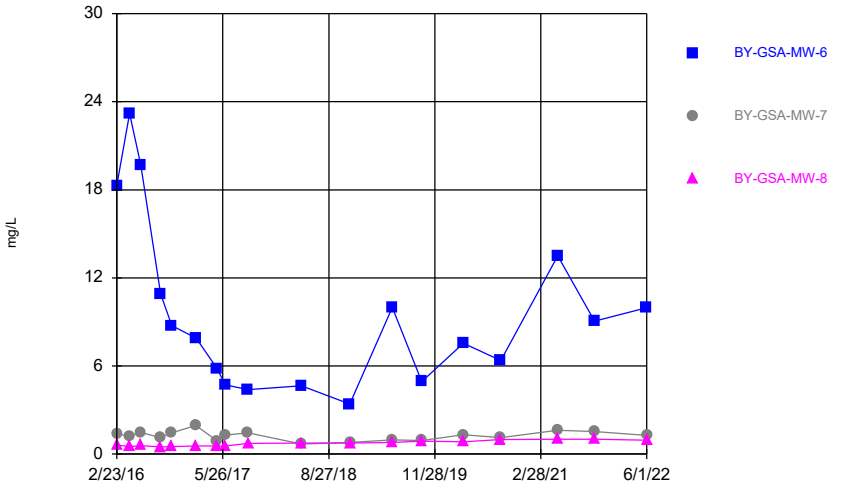


Constituent: Calcium, total Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

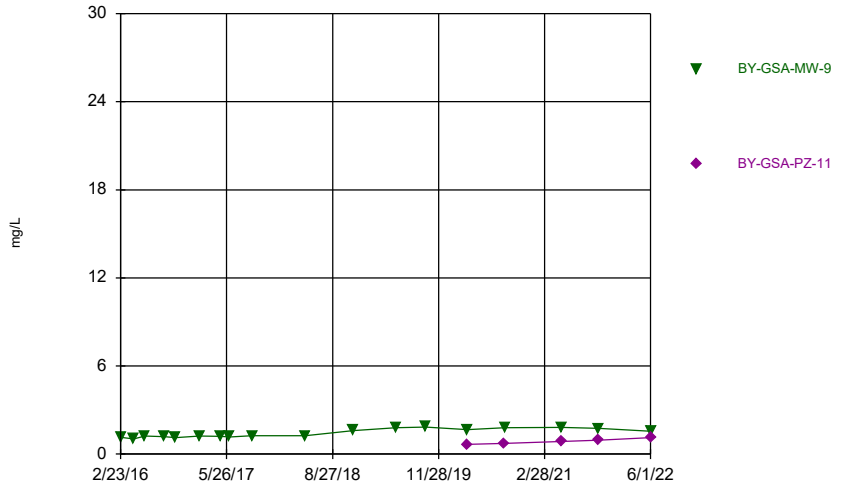


Constituent: Calcium, total Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

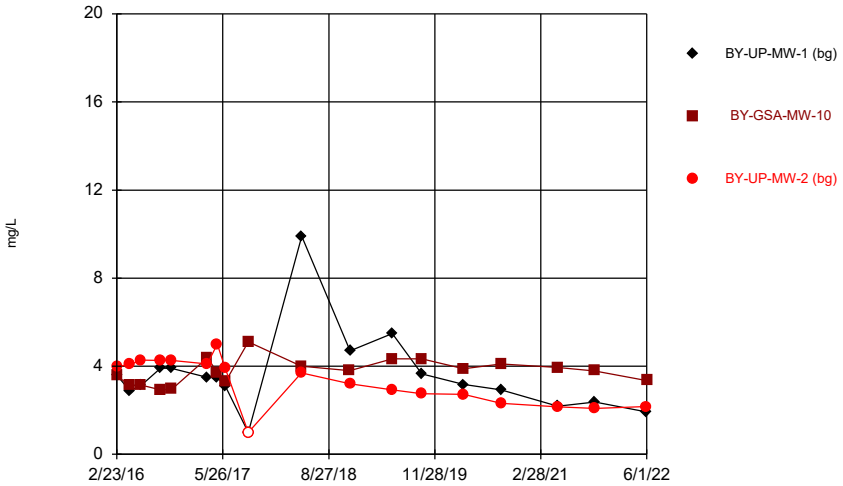


Constituent: Calcium, total Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

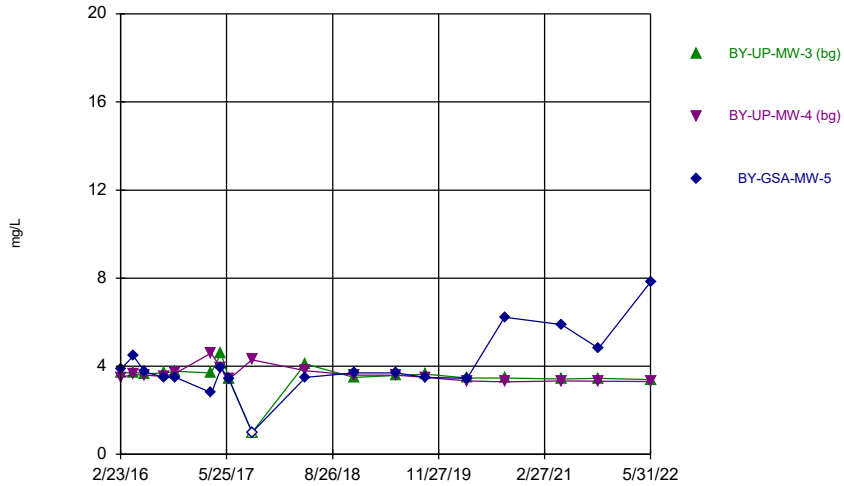
Time Series



Constituent: Chloride, total Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

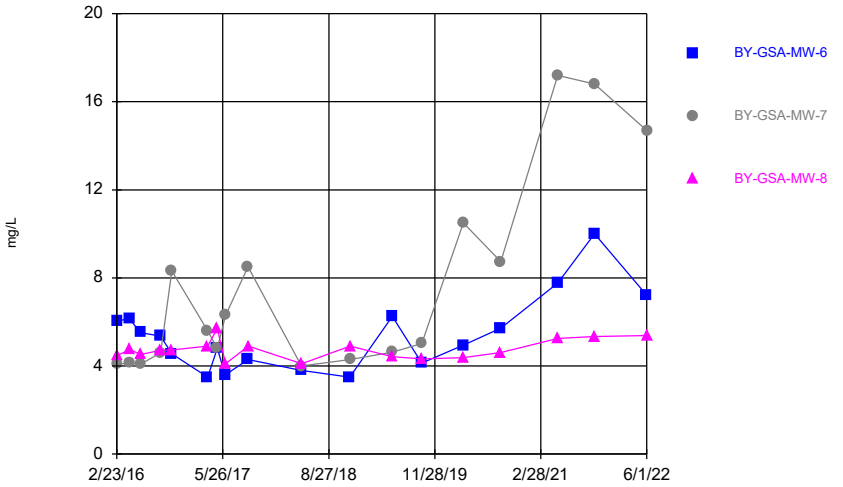
Time Series



Constituent: Chloride, total Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

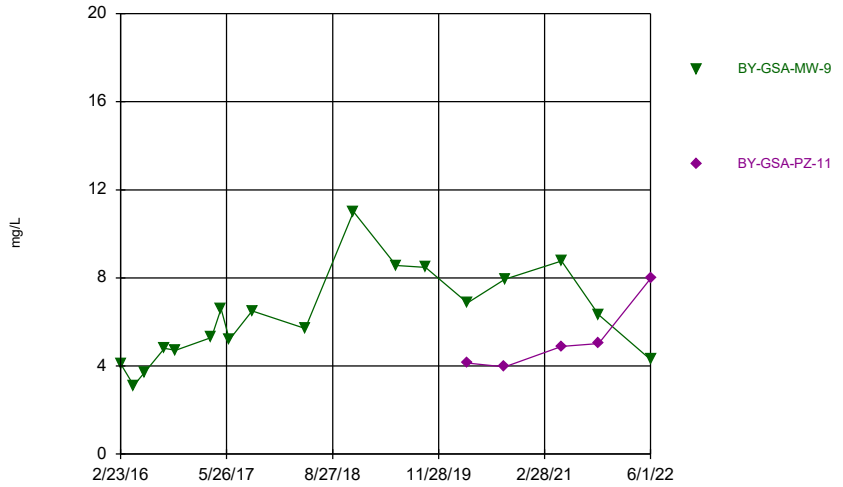
Time Series



Constituent: Chloride, total Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

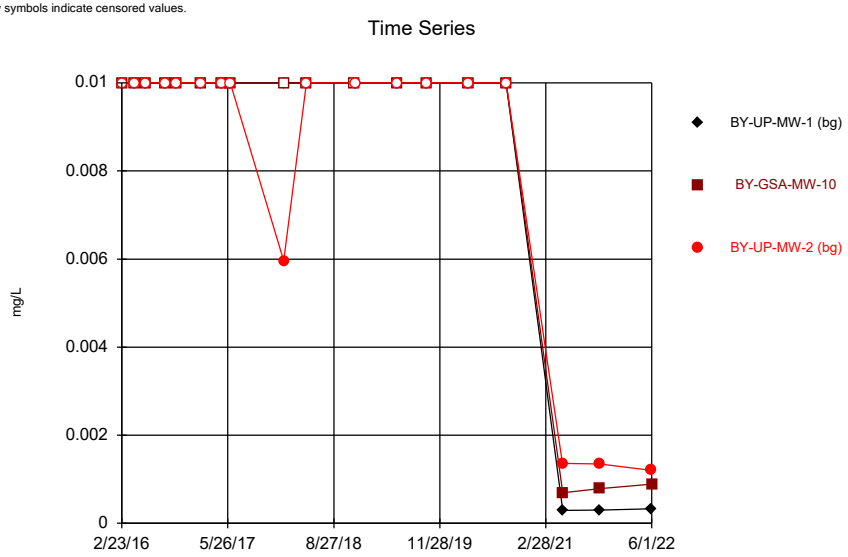
Sanitas™ v.9.6.35 . UG

Time Series



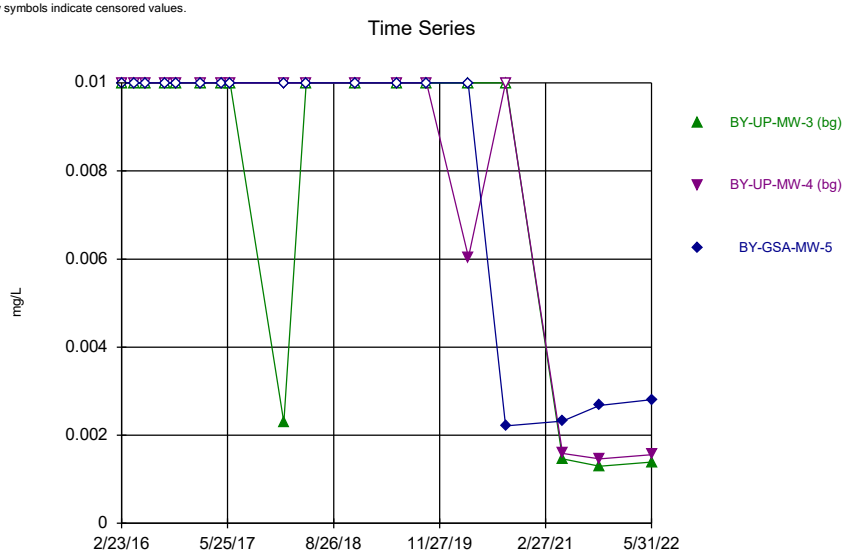
Constituent: Chloride, total Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



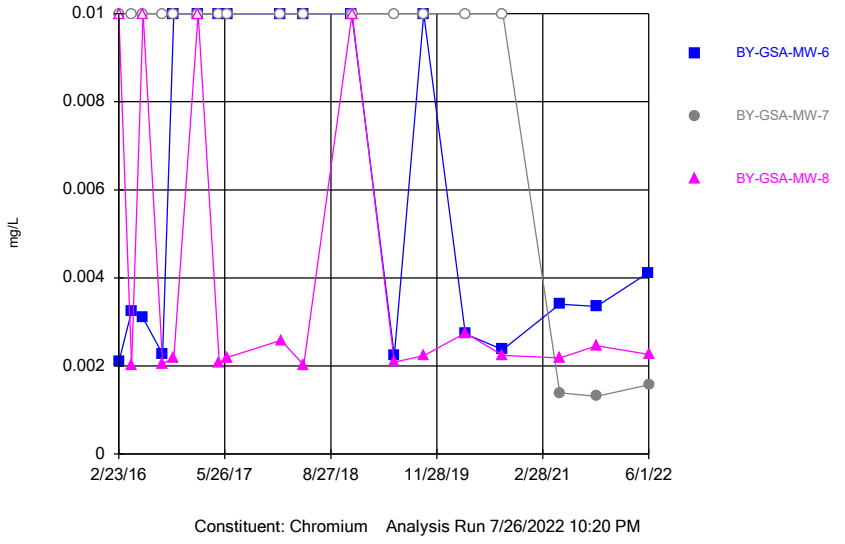
Constituent: Chromium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



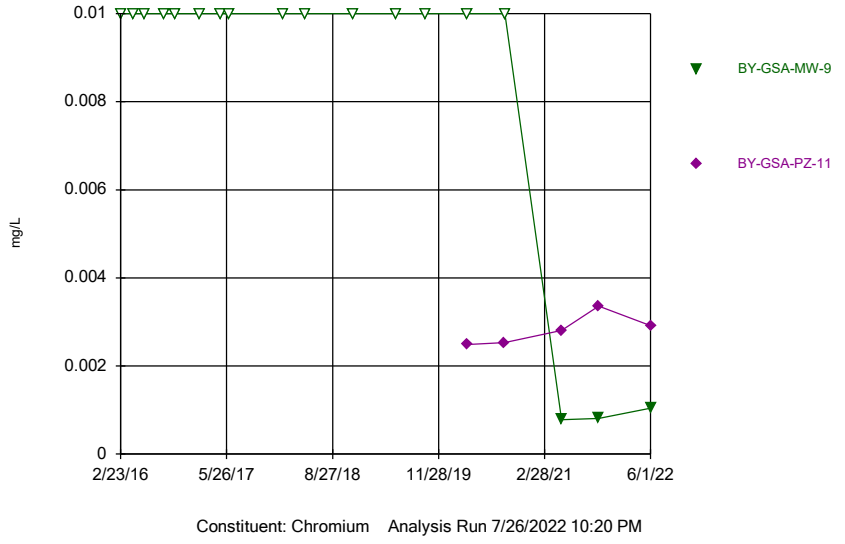
Constituent: Chromium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



Constituent: Chromium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

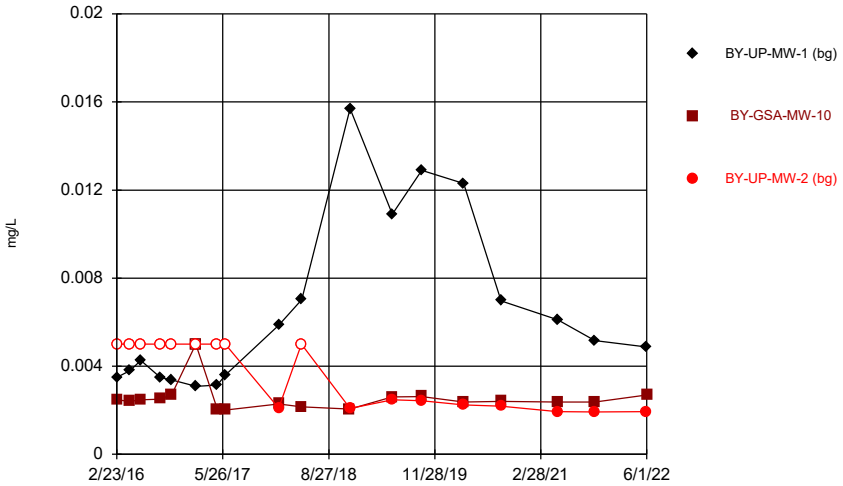
Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



Constituent: Chromium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

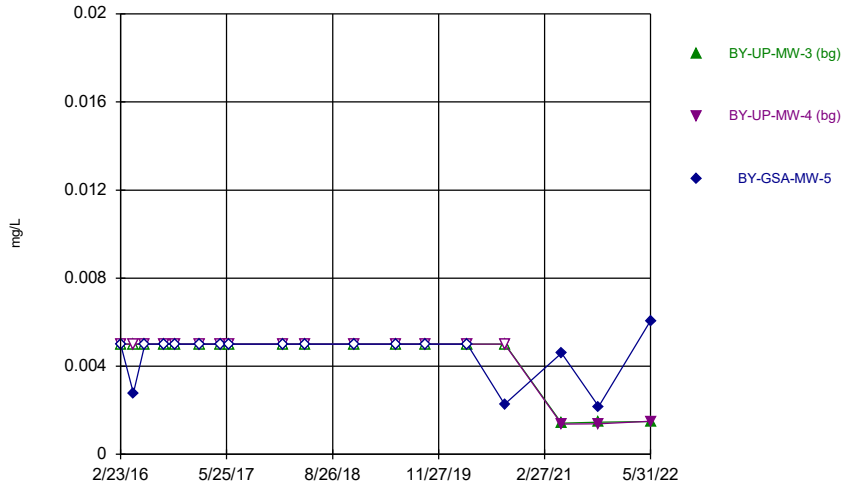
Time Series



Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

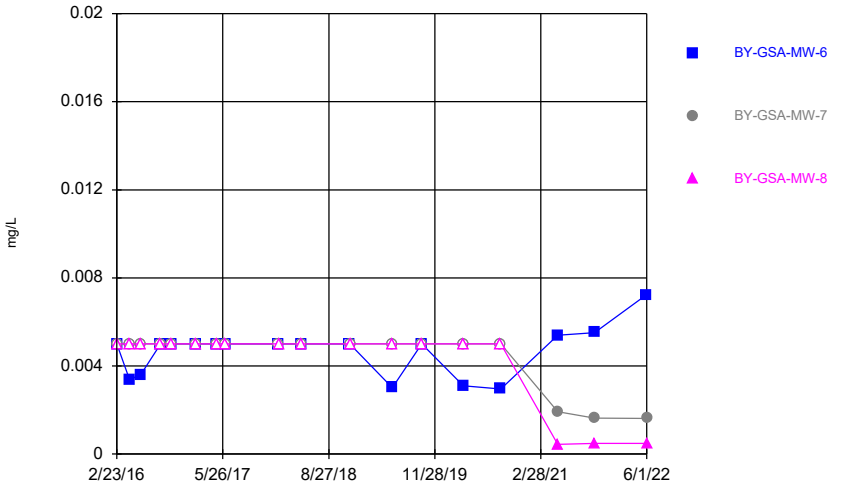
Time Series



Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

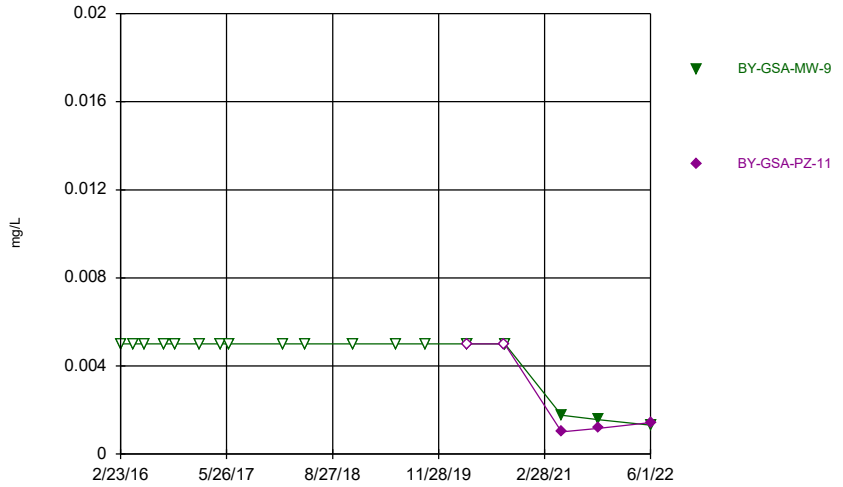
Time Series



Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

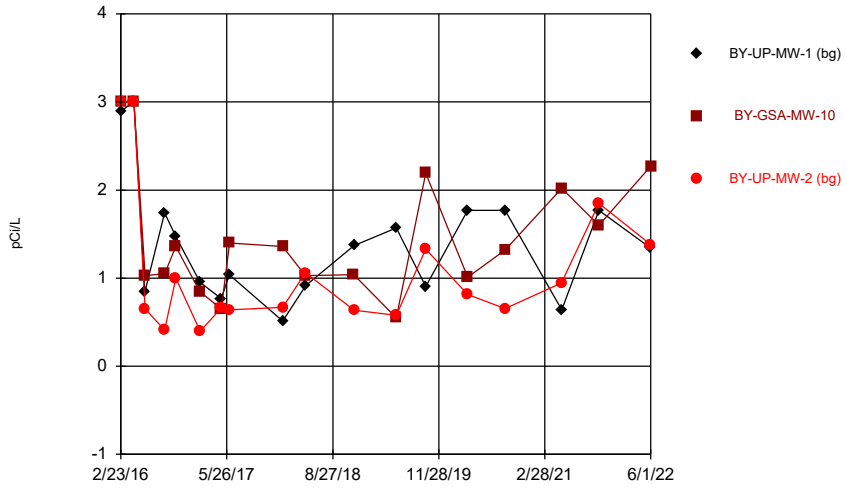
Time Series



Constituent: Cobalt Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

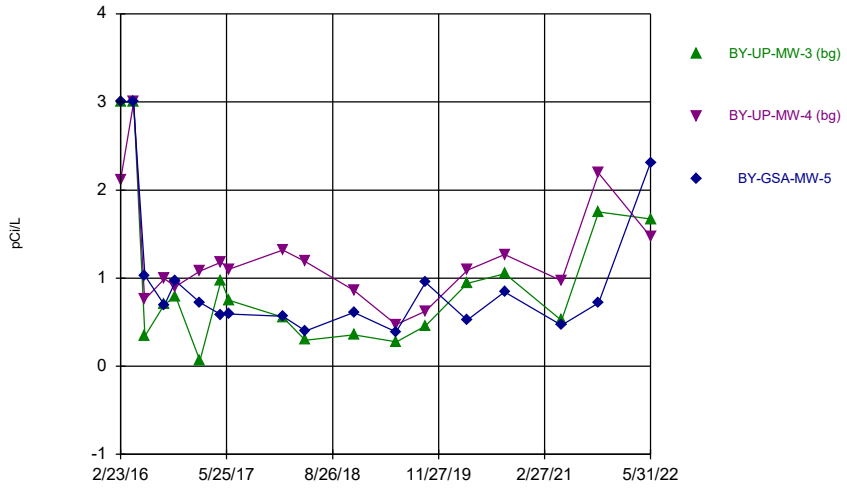


Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

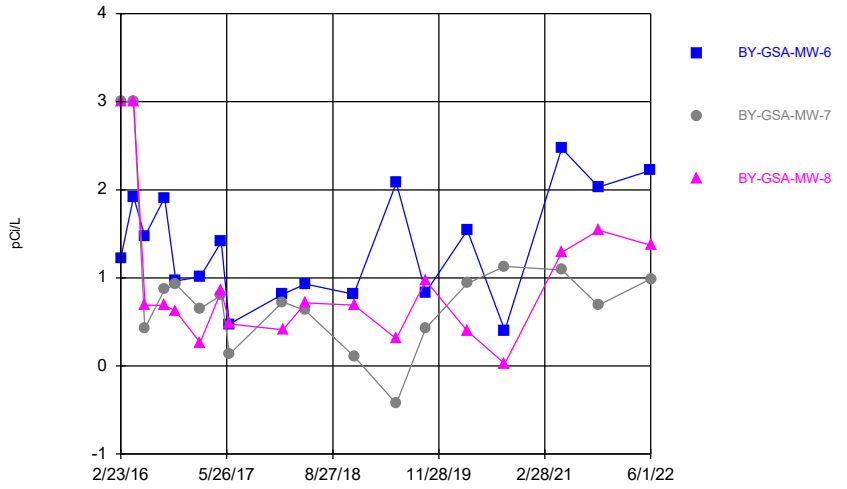


Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

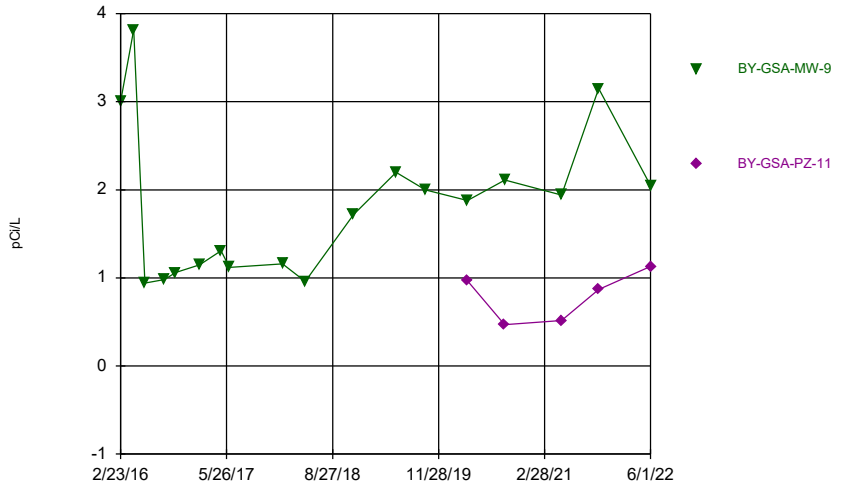


Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

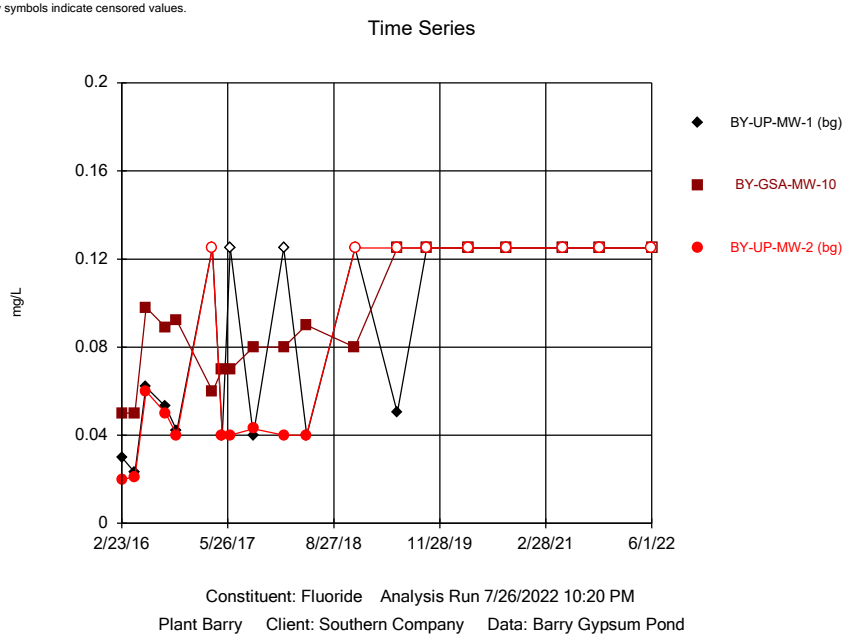
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:20 PM

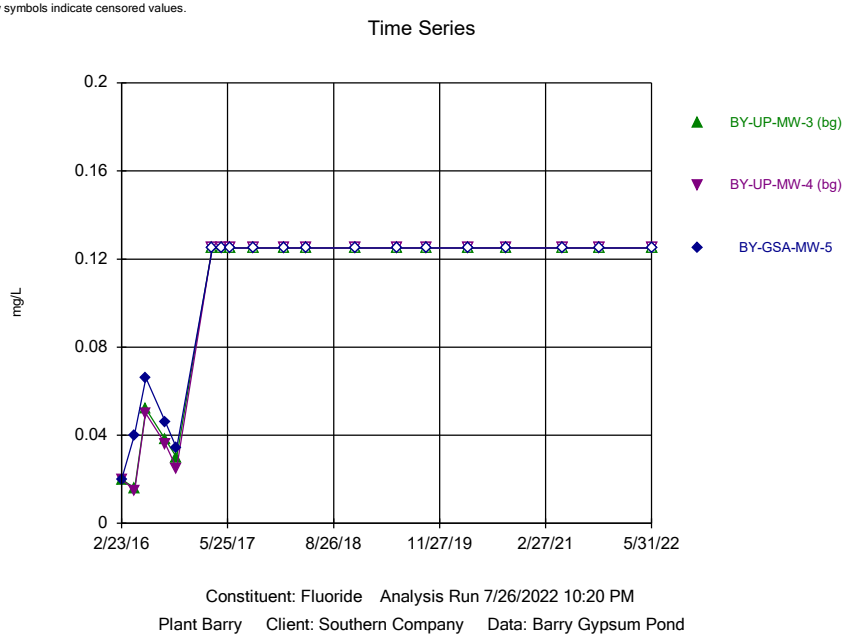
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



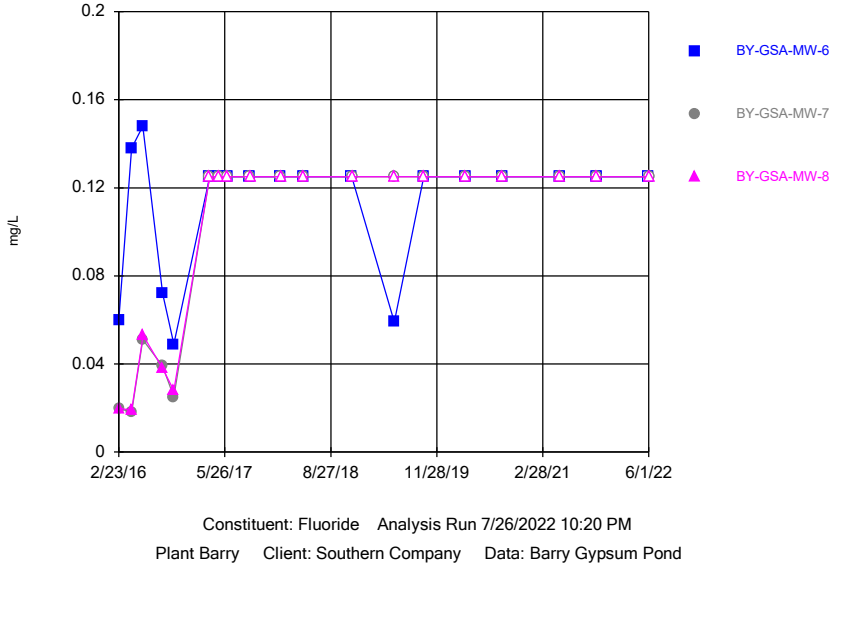
Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



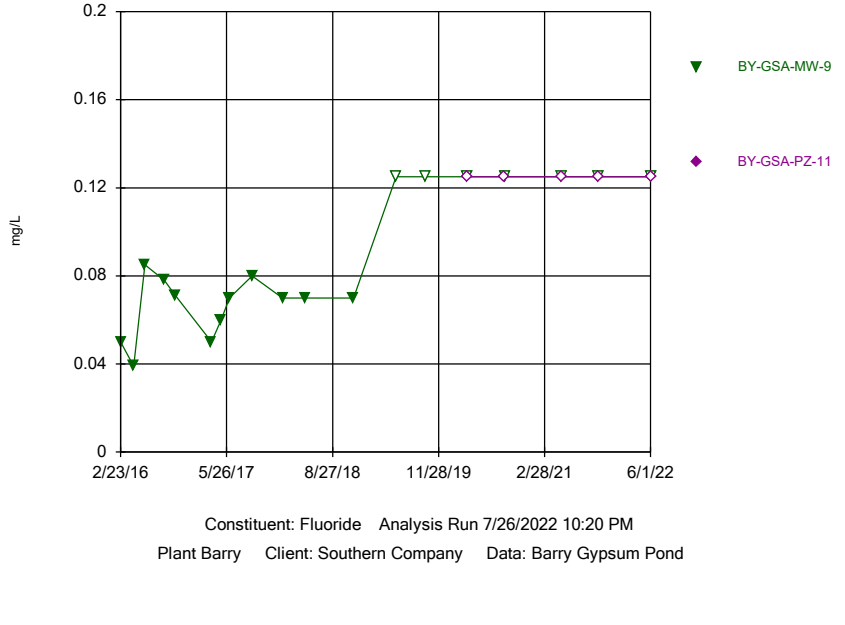
Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

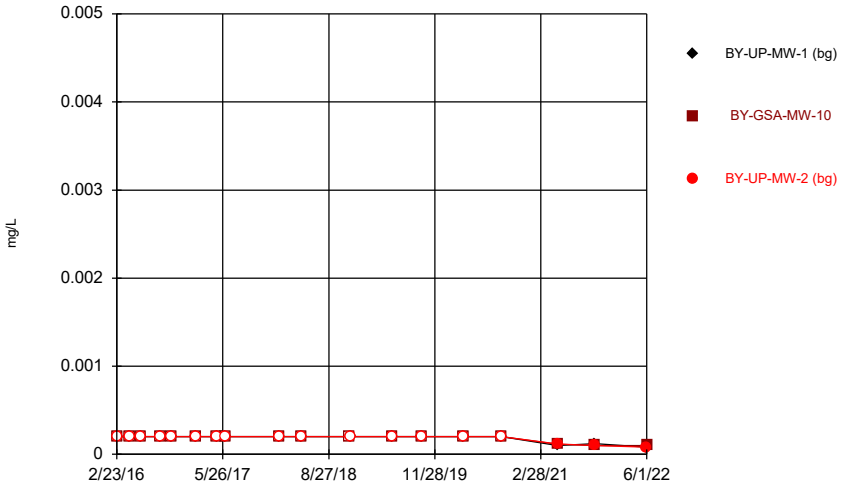
Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



Constituent: Fluoride Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

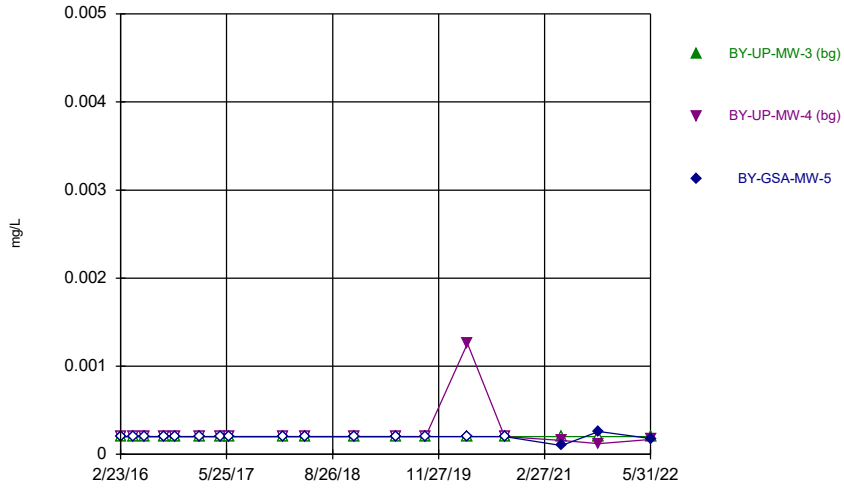
Time Series



Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

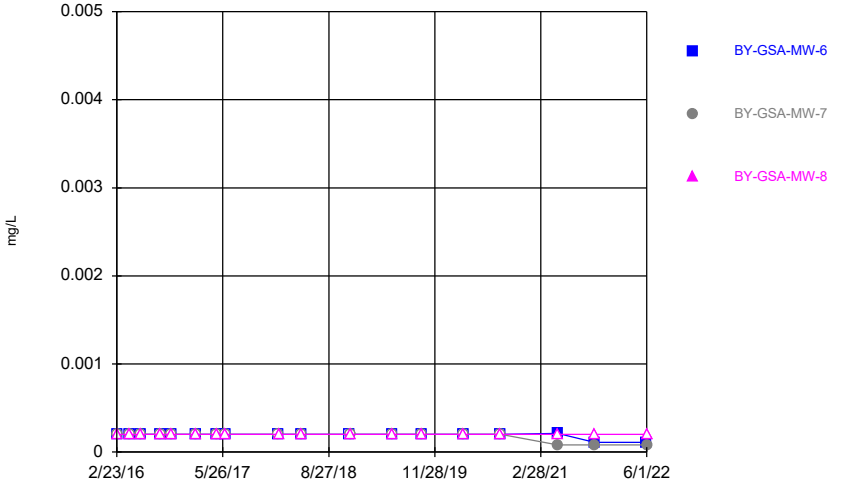
Time Series



Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

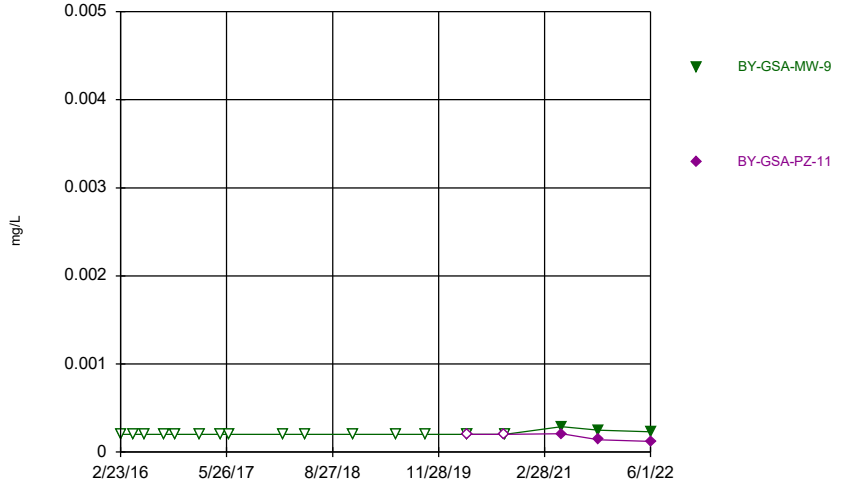
Time Series



Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

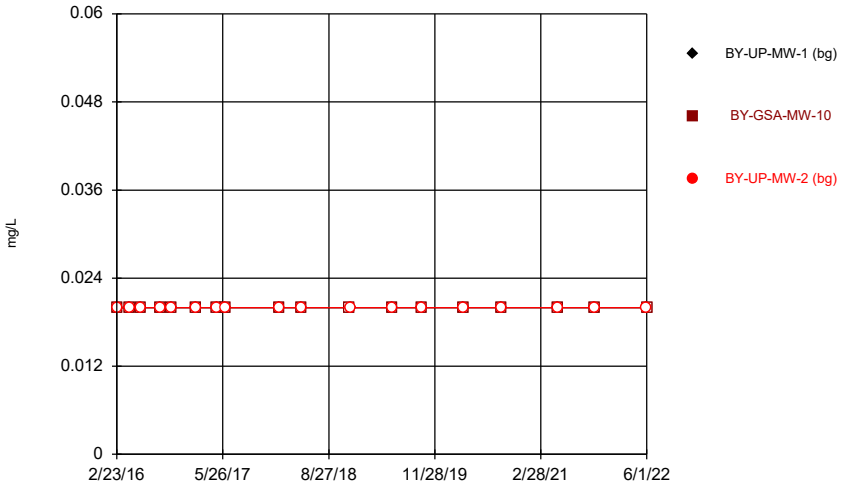
Time Series



Constituent: Lead Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

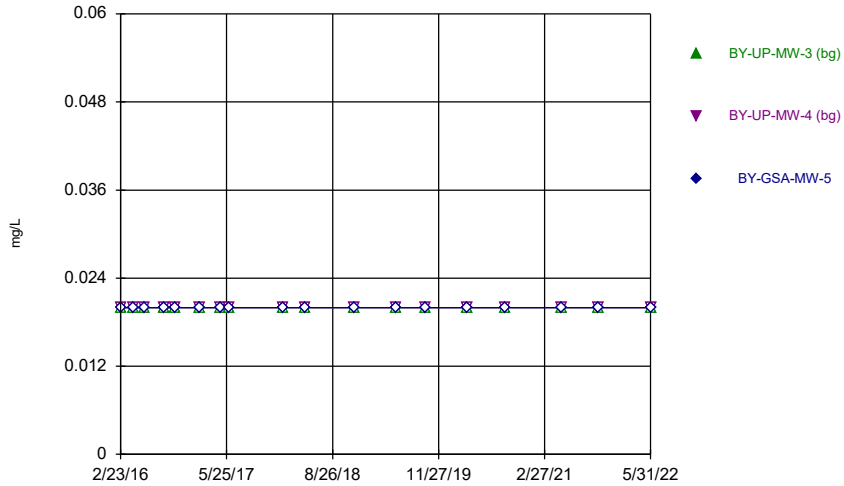
Time Series



Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

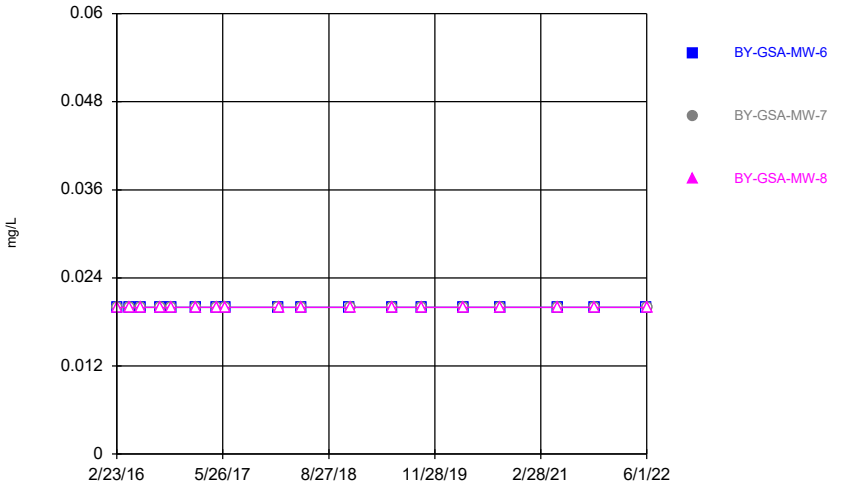
Time Series



Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

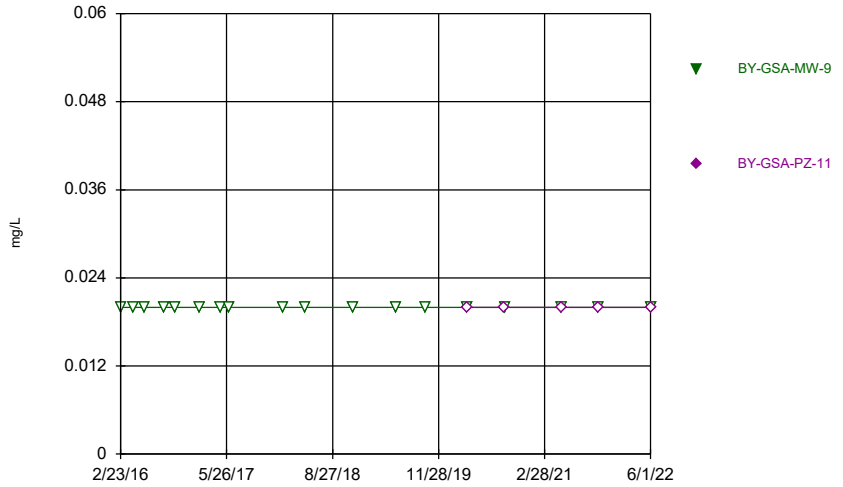
Time Series



Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

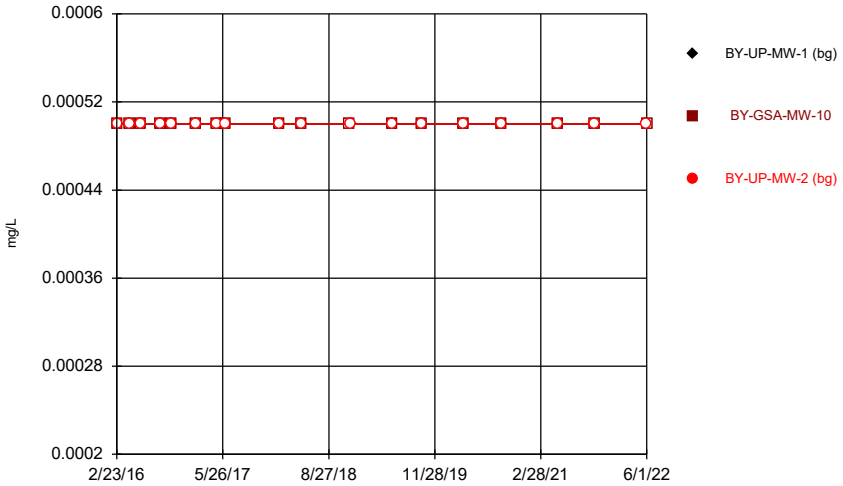
Time Series



Constituent: Lithium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

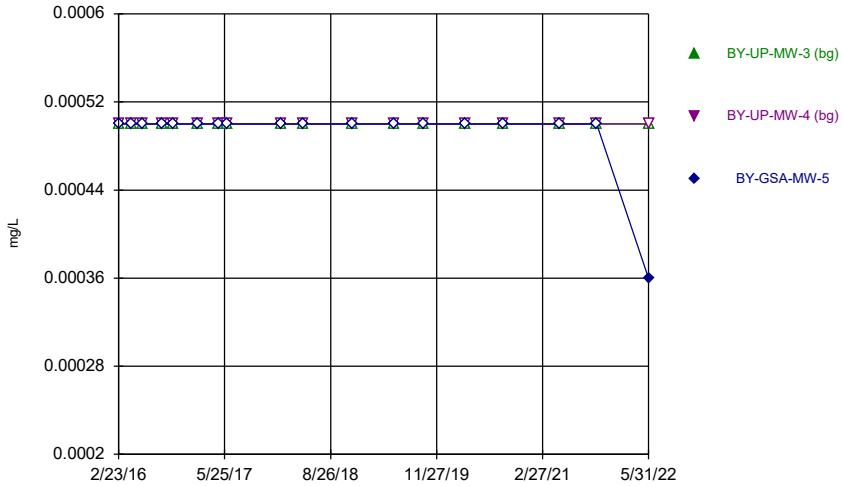
Time Series



Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

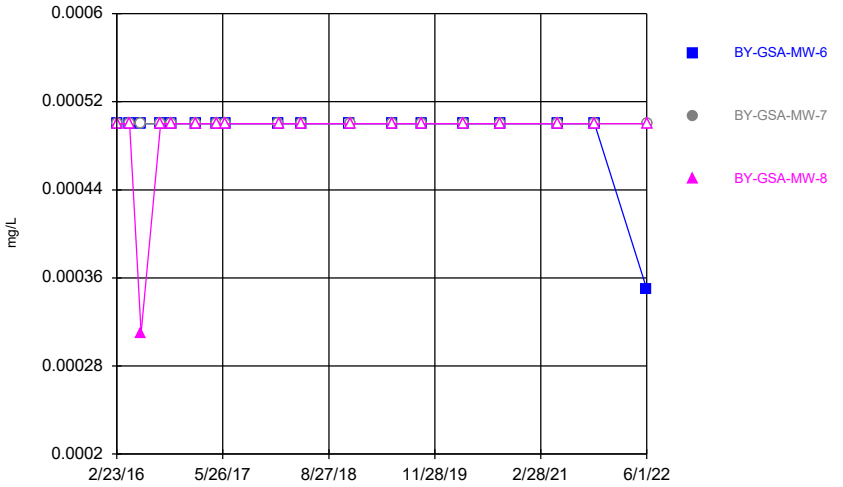
Time Series



Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

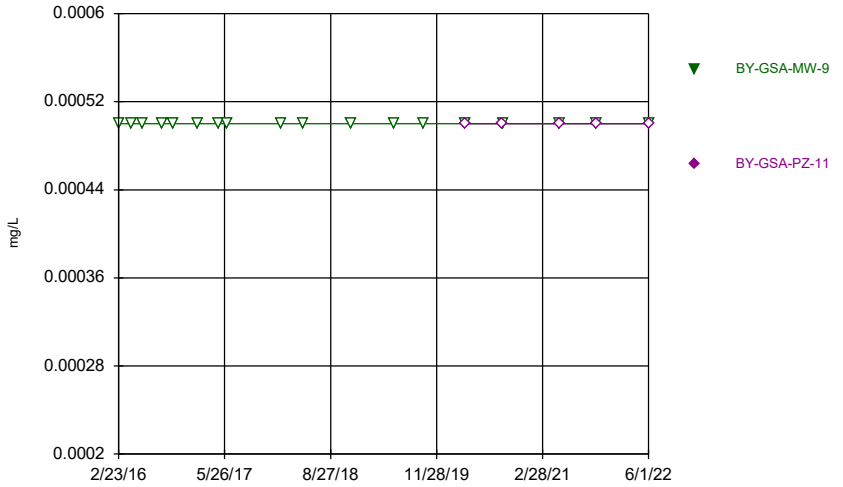
Time Series



Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

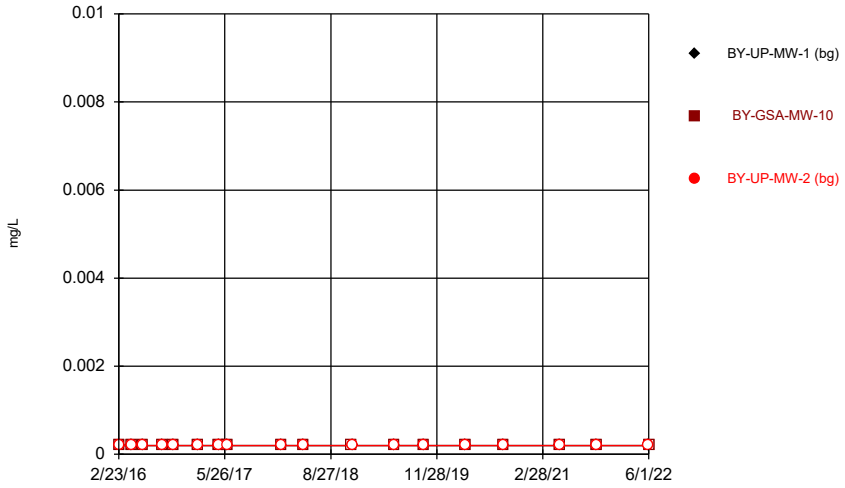
Time Series



Constituent: Mercury Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

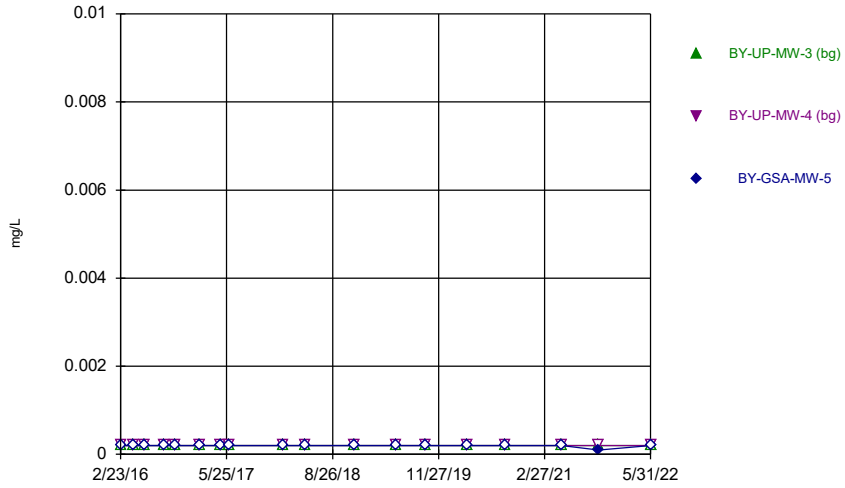
Time Series



Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

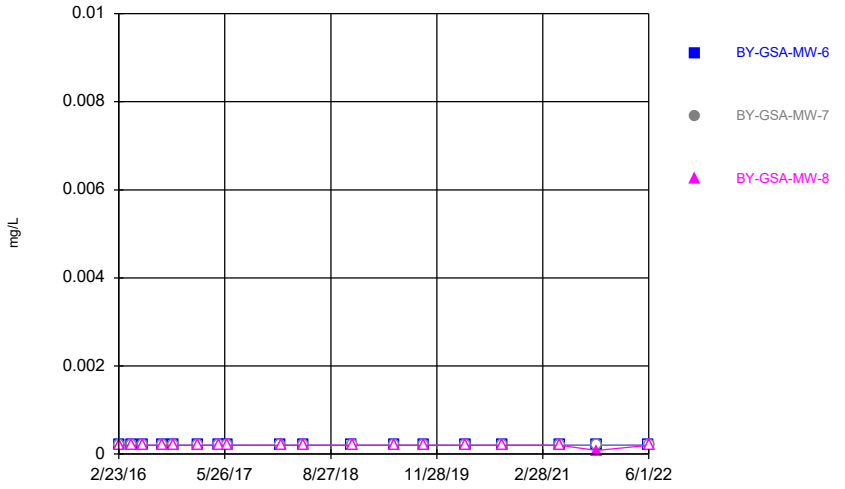
Time Series



Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

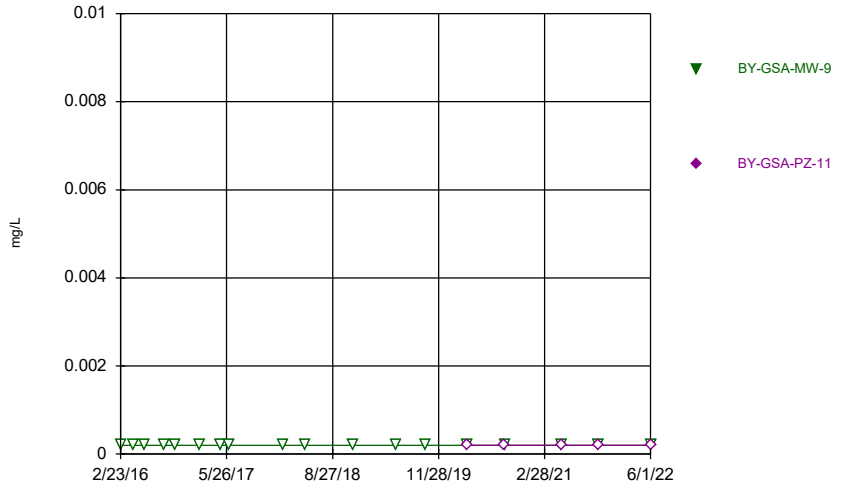
Time Series



Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

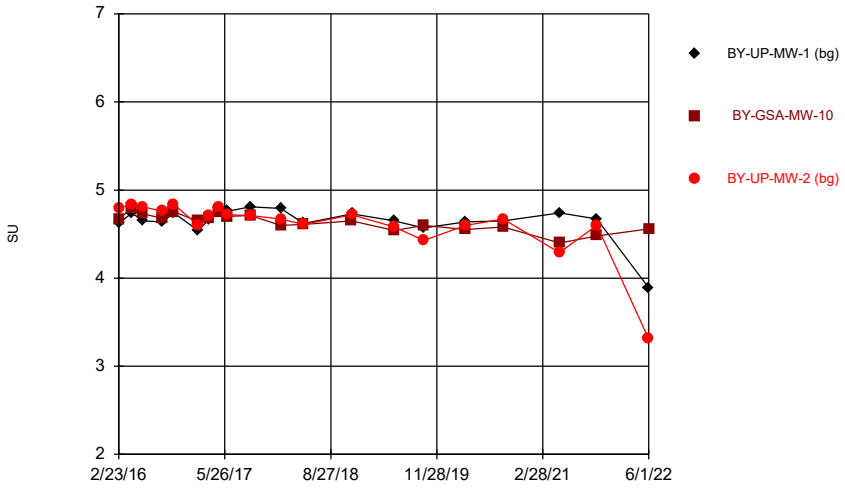
Time Series



Constituent: Molybdenum Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

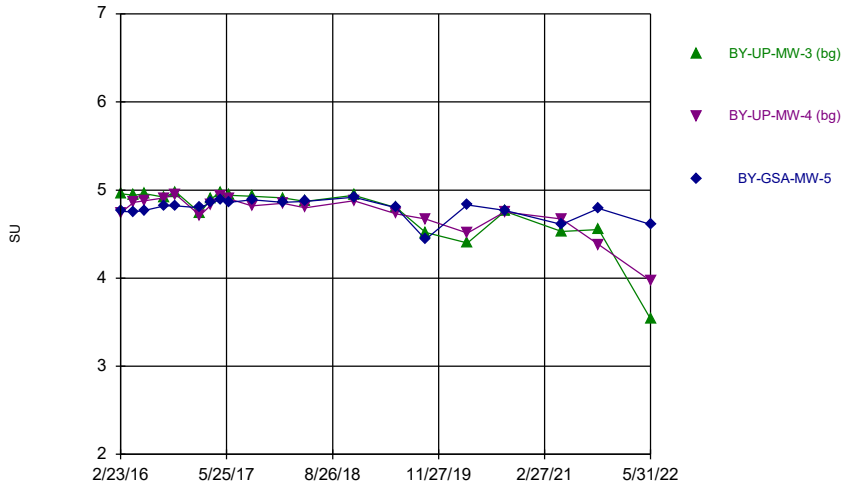


Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

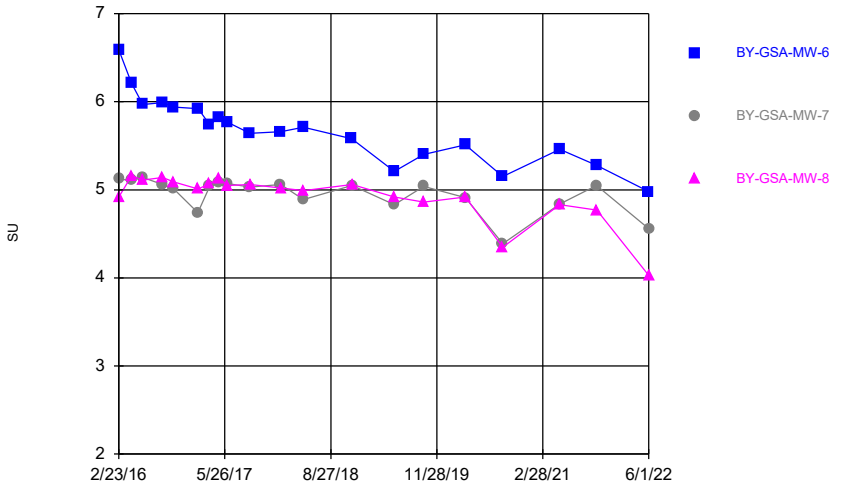


Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

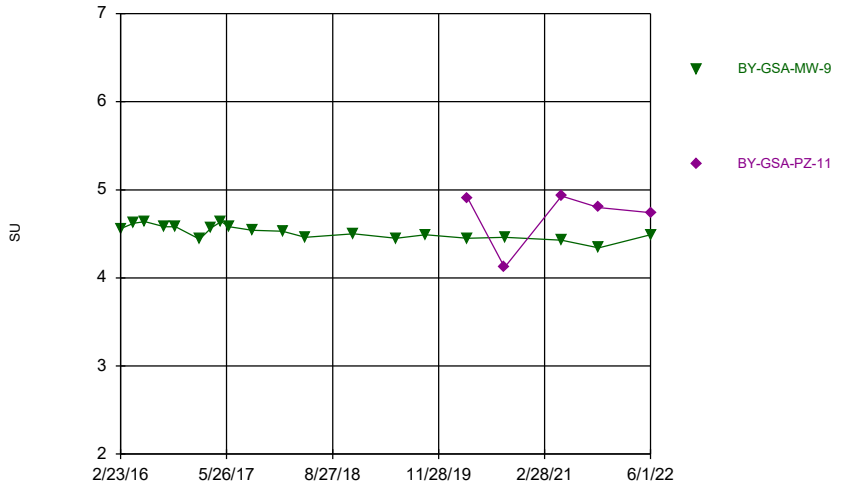


Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

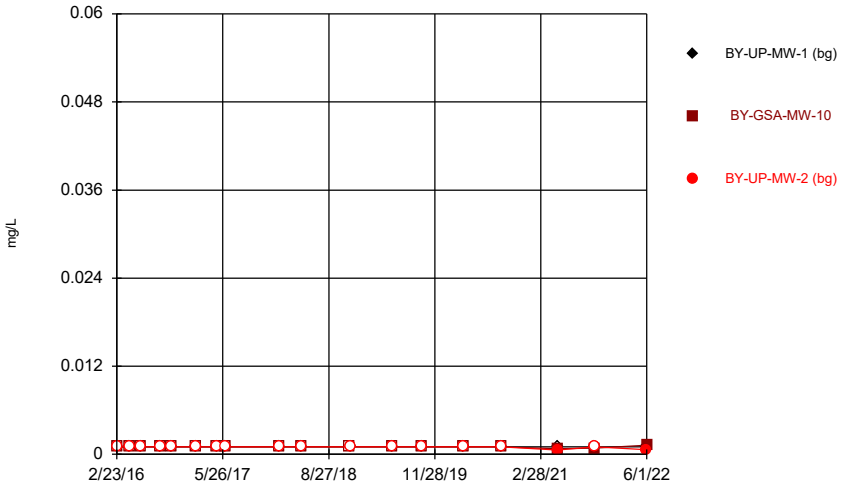


Constituent: pH, Field Analysis Run 7/26/2022 10:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

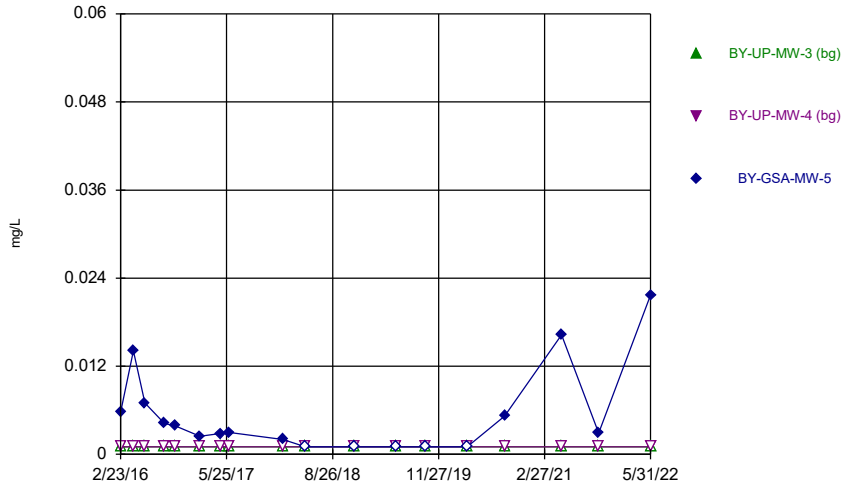
Time Series



Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

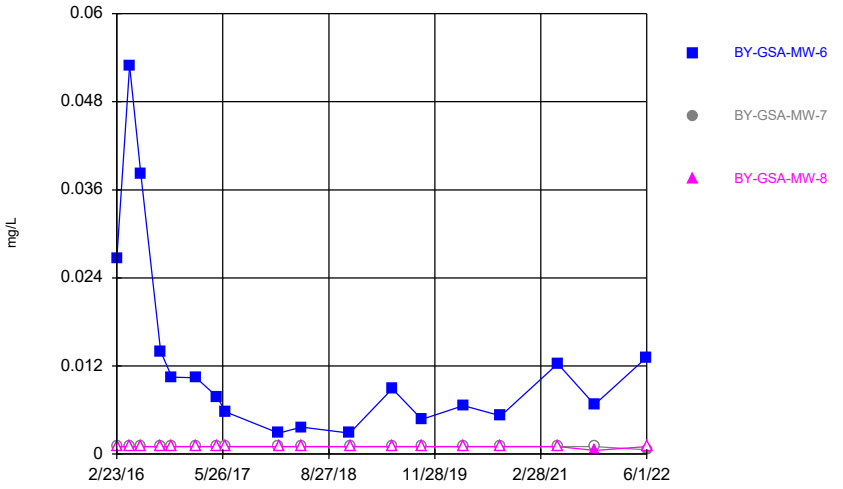
Time Series



Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

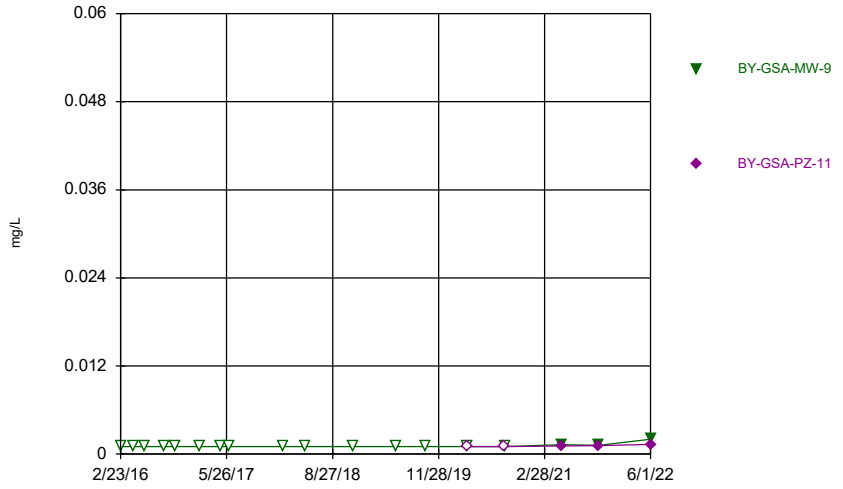
Time Series



Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

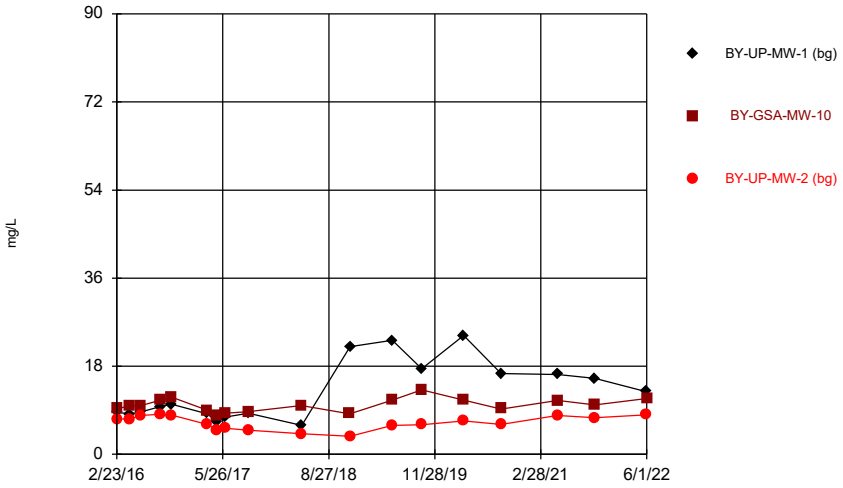
Time Series



Constituent: Selenium Analysis Run 7/26/2022 10:20 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

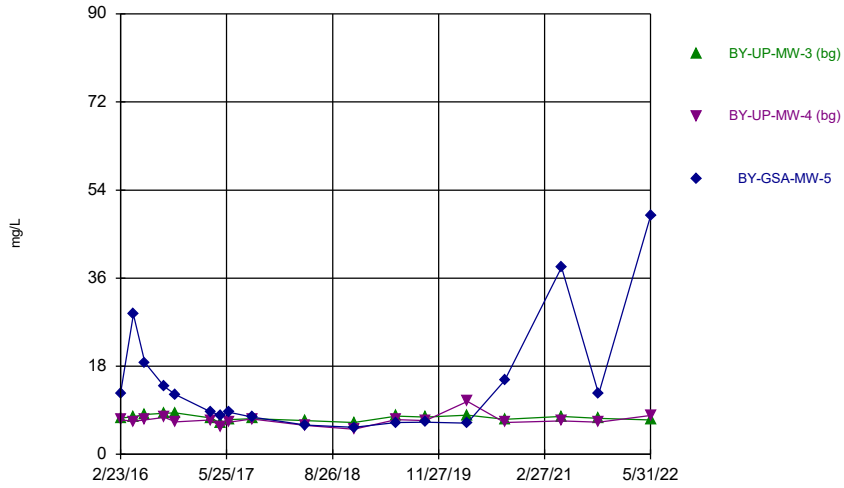


Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

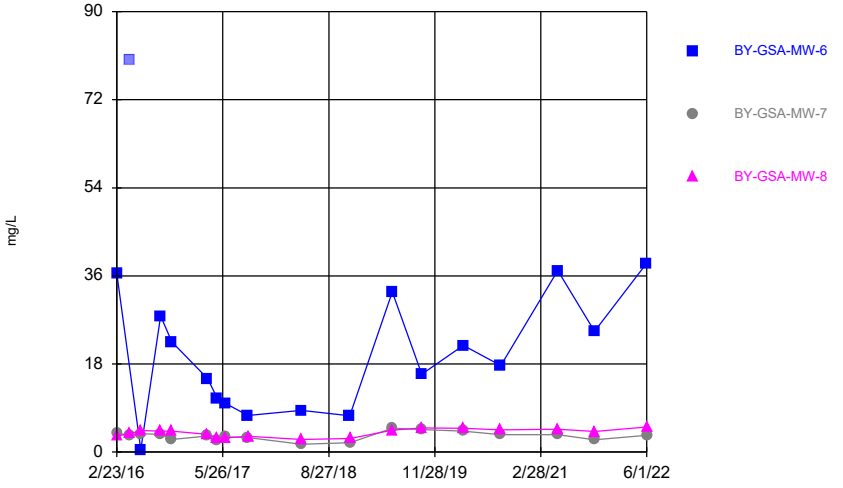


Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

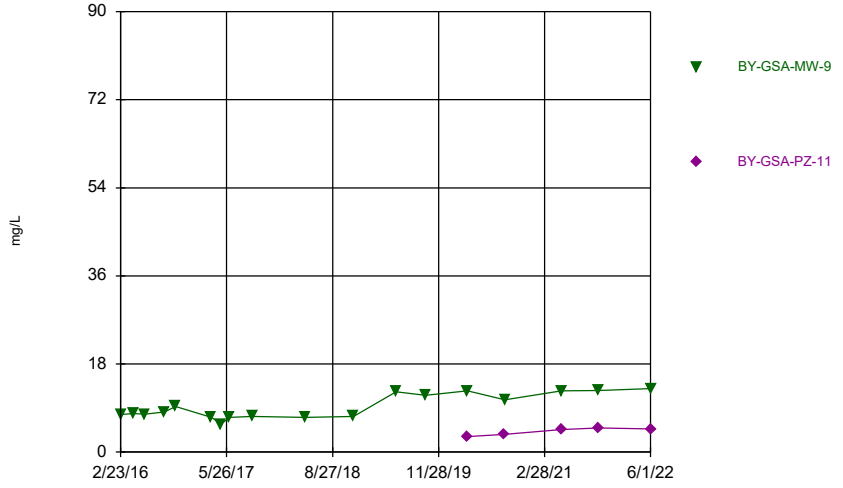


Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Time Series

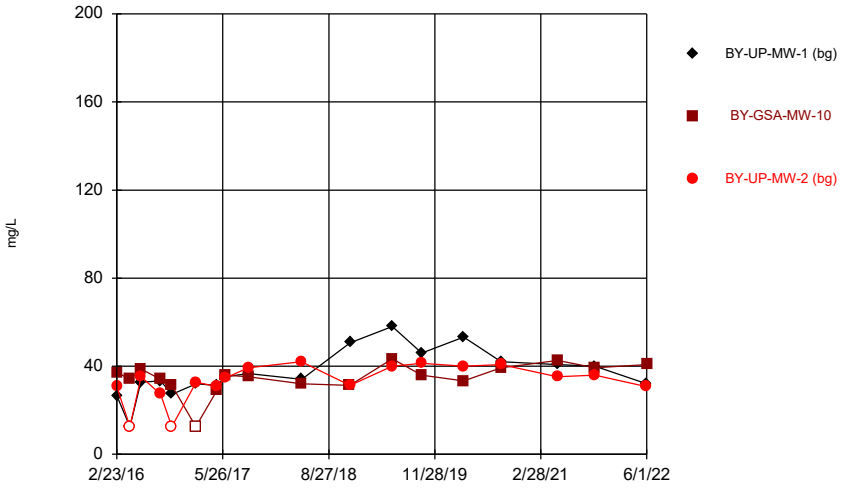


Constituent: Sulfate Analysis Run 7/26/2022 10:21 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

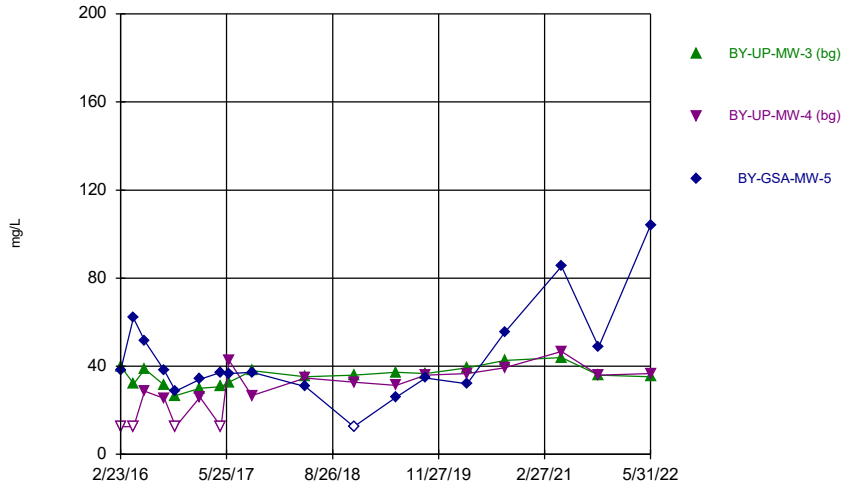
Time Series



Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

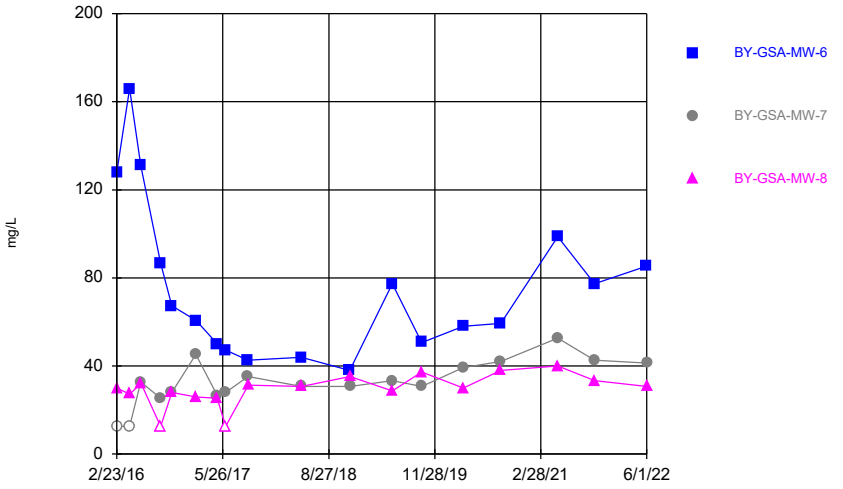
Time Series



Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

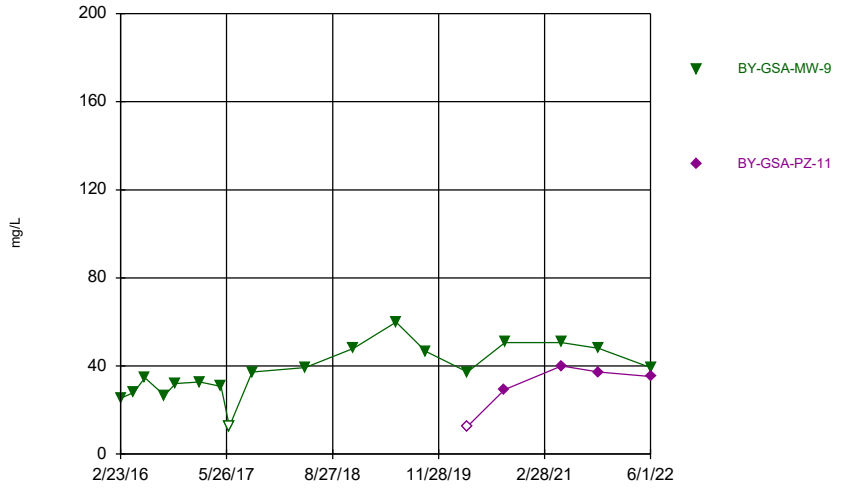
Time Series



Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

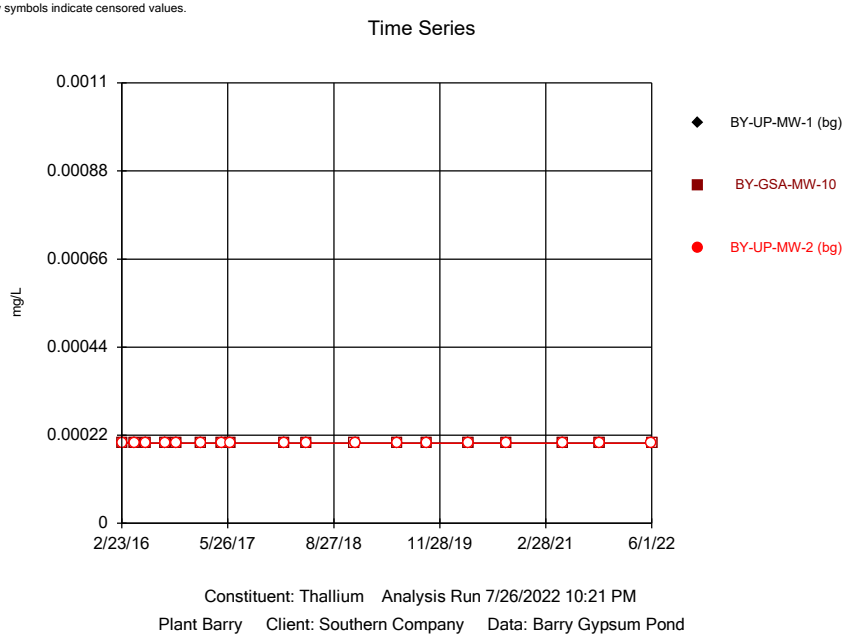
Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Time Series



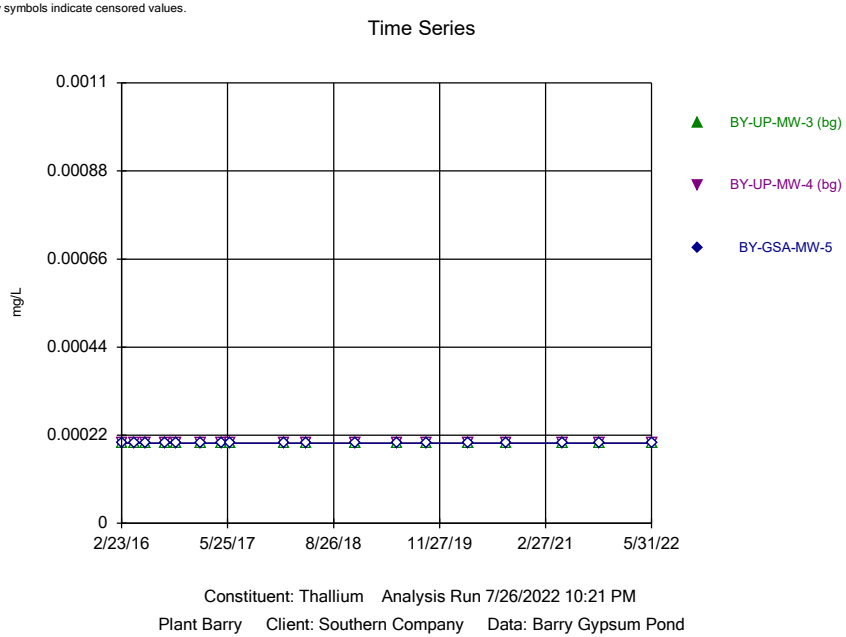
Constituent: TDS Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



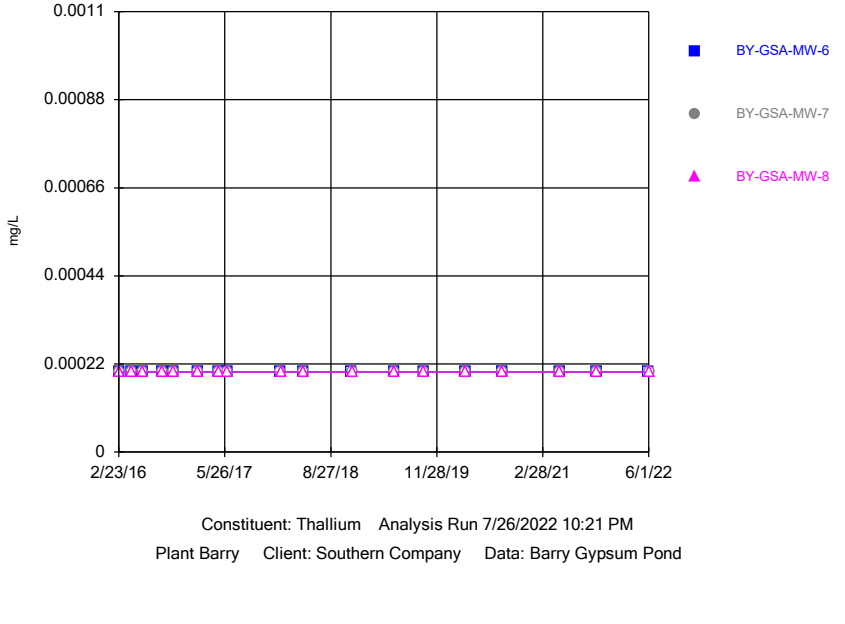
Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



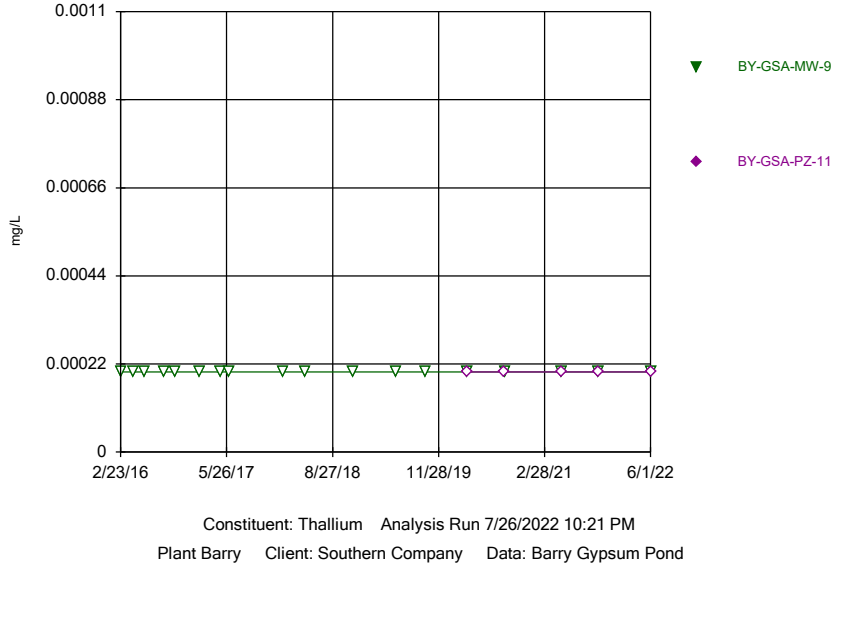
Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 7/26/2022 10:21 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.00102	<0.00102	<0.00102
4/19/2016	<0.00102	<0.00102	<0.00102
6/6/2016	<0.00102		
6/7/2016		<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		0.000838 (J)	
1/31/2017	0.000925 (J)		0.000898 (J)
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102		<0.00102
6/7/2017		<0.00102	
1/23/2018	<0.00102	<0.00102	<0.00102
5/1/2018		<0.00102	<0.00102
5/2/2018	<0.00102		
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/29/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102
9/9/2020	<0.00102	<0.00102	<0.00102
5/11/2021			<0.00102
5/12/2021	<0.00102	<0.00102	
10/19/2021	<0.00102	<0.00102	<0.00102
5/31/2022	<0.00102		<0.00102
6/1/2022		<0.00102	

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.00102	0.000606 (J)	<0.00102
4/18/2016			<0.00102
4/19/2016	<0.00102	<0.00102	
6/6/2016		<0.00102	
6/7/2016	<0.00102		<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/31/2017	0.000911 (J)	0.000928 (J)	0.000866 (J)
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102	<0.00102	<0.00102
1/23/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019		<0.00102	<0.00102
5/29/2019	<0.00102		
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020			<0.00102
3/31/2020	<0.00102	<0.00102	
9/8/2020		<0.00102	<0.00102
9/9/2020	<0.00102		
5/11/2021	<0.00102	<0.00102	
5/12/2021			<0.00102
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	<0.00102	<0.00102	<0.00102

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.00102	<0.00102	<0.00102
4/18/2016	<0.00102	<0.00102	<0.00102
6/6/2016	0.000633 (J)	<0.00102	
6/7/2016			<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		0.00119 (J)	
1/31/2017	0.000926 (J)		0.000885 (J)
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102		
6/7/2017		<0.00102	<0.00102
1/22/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018	<0.00102		
11/27/2018		<0.00102	<0.00102
5/28/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102	<0.00102	<0.00102
5/12/2021	<0.00102	<0.00102	<0.00102
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	<0.00102		
6/1/2022		<0.00102	<0.00102

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.00102	
4/19/2016	<0.00102	
6/7/2016	<0.00102	
8/30/2016	<0.00102	
10/18/2016	<0.00102	
1/30/2017	0.000859 (J)	
5/2/2017	<0.00102	
6/7/2017	<0.00102	
1/23/2018	<0.00102	
5/1/2018	<0.00102	
11/26/2018	<0.00102	
5/29/2019	<0.00102	
10/2/2019	<0.00102	
3/31/2020	<0.00102	<0.00102
9/8/2020		<0.00102
9/9/2020	<0.00102	
5/12/2021	<0.00102	<0.00102
10/19/2021	<0.00102	<0.00102
6/1/2022	<0.00102	<0.00102

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			0.000136 (J)
5/12/2021	0.000336	0.000129 (J)	
10/19/2021	0.00035	0.00013 (J)	0.00012 (J)
5/31/2022	0.00024		9E-05 (J)
6/1/2022		9E-05 (J)	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	0.0017 (J)	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	0.000217	
5/12/2021			0.000501
10/18/2021	9E-05 (J)	0.00019 (J)	
10/19/2021			0.0002 (J)
5/31/2022	<0.0002	0.0002	0.00053

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	0.000821	0.000177 (J)	<0.0002
10/18/2021	0.00032	0.00023	
10/19/2021			0.00016 (J)
5/31/2022	0.00052		
6/1/2022		0.00024	<0.0002

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	0.000173 (J)	0.000111 (J)
10/19/2021	<0.0002	0.00013 (J)
6/1/2022	0.0001 (J)	<0.0002

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.117	0.134	0.111
4/19/2016	0.099	0.114	0.0875
6/6/2016	0.107		
6/7/2016		0.118	0.0979
8/30/2016	0.106	0.126	0.108
10/18/2016	0.102	0.127	0.103
1/30/2017		0.1	
1/31/2017	0.0944		0.109
5/2/2017	0.0868	0.114	0.125
6/6/2017	0.0799		0.108
6/7/2017		0.0991	
1/23/2018	0.0884	0.119	0.153
5/1/2018		0.132	0.167
5/2/2018	0.137		
11/26/2018		0.112	
11/27/2018	0.157		0.158
5/29/2019	0.166	0.125	0.172
10/2/2019	0.129	0.136	0.183
3/31/2020	0.176	0.122	0.171
9/9/2020	0.124	0.125	0.172
5/11/2021			0.165
5/12/2021	0.123	0.121	
10/19/2021	0.103	0.115	0.145
5/31/2022	0.1		0.153
6/1/2022		0.136	

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	0.0862	0.0973	0.109
4/18/2016			0.135
4/19/2016	0.0718	0.0802	
6/6/2016		0.0862	
6/7/2016	0.0754		0.0892
8/30/2016	0.0768	0.0841	0.083
10/18/2016	0.0727	0.0715	0.0859
1/31/2017	0.0698	0.0825	0.0779
5/2/2017	0.0723	0.0777	0.0799
6/6/2017	0.07	0.078	0.0788
1/23/2018	0.0747	0.0825	
1/24/2018			0.0746
5/1/2018	0.0877	0.102	
5/2/2018			0.085
11/26/2018		0.0994	
11/27/2018	0.0804		0.072
5/28/2019		0.102	0.0684
5/29/2019	0.0831		
10/2/2019	0.089	0.111	0.0728
3/30/2020			0.0718
3/31/2020	0.0927	0.129	
9/8/2020		0.125	0.181
9/9/2020	0.0919		
5/11/2021	0.0981	0.125	
5/12/2021			0.106
10/18/2021	0.0935	0.124	
10/19/2021			0.0998
5/31/2022	0.0992	0.129	0.226

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.237	0.0546	0.0352
4/18/2016	0.263	0.0421	0.0251
6/6/2016	0.206	0.0457	
6/7/2016			0.0299
8/30/2016	0.165	0.0469	0.0287
10/18/2016	0.148	0.0611	0.0309
1/30/2017		0.0801	
1/31/2017	0.123		0.0282
5/2/2017	0.098	0.0388	0.0309
6/6/2017	0.0844		
6/7/2017		0.0437	0.0287
1/22/2018	0.0593	0.0399	
1/24/2018			0.0351
5/1/2018	0.081	0.04	
5/2/2018			0.0398
11/26/2018	0.0657		
11/27/2018		0.0427	0.0388
5/28/2019	0.17	0.0524	0.0412
10/2/2019	0.0985	0.0492	0.0453
3/30/2020	0.142	0.0788	0.0444
9/8/2020	0.0981	0.0615	0.0494
5/12/2021	0.159	0.1	0.0488
10/18/2021	0.146	0.0859	
10/19/2021			0.0452
5/31/2022	0.202		
6/1/2022		0.0803	0.0477

Time Series

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	0.121	
4/19/2016	0.0926	
6/7/2016	0.0998	
8/30/2016	0.106	
10/18/2016	0.106	
1/30/2017	0.111	
5/2/2017	0.111	
6/7/2017	0.107	
1/23/2018	0.122	
5/1/2018	0.139	
11/26/2018	0.152	
5/29/2019	0.155	
10/2/2019	0.16	
3/31/2020	0.165	0.0499
9/8/2020		0.05
9/9/2020	0.17	
5/12/2021	0.184	0.0597
10/19/2021	0.151	0.0599
6/1/2022	0.142	0.0821

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.00102	<0.00102	<0.00102
4/19/2016	<0.00102	<0.00102	<0.00102
6/6/2016	0.000612 (J)		
6/7/2016		<0.00102	0.00093 (J)
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	<0.00102		<0.00102
5/2/2017	0.00069 (J)	<0.00102	<0.00102
6/6/2017	<0.00102		<0.00102
6/7/2017		<0.00102	
1/23/2018	<0.00102	<0.00102	<0.00102
5/1/2018		<0.00102	<0.00102
5/2/2018	<0.00102		
11/26/2018		<0.00102	
11/27/2018	0.000856 (J)		0.000801 (J)
5/29/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102
9/9/2020	<0.00102	<0.00102	<0.00102
5/11/2021			<0.00102
5/12/2021	0.000694 (J)	<0.00102	
10/19/2021	<0.00102	<0.00102	<0.00102
5/31/2022	<0.00102		0.00041 (J)
6/1/2022		<0.00102	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.00102	<0.00102	<0.00102
4/18/2016			<0.00102
4/19/2016	<0.00102	<0.00102	
6/6/2016		<0.00102	
6/7/2016	<0.00102		<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/31/2017	<0.00102	<0.00102	<0.00102
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102	<0.00102	<0.00102
1/23/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019		<0.00102	<0.00102
5/29/2019	<0.00102		
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020			<0.00102
3/31/2020	<0.00102	<0.00102	
9/8/2020		<0.00102	<0.00102
9/9/2020	<0.00102		
5/11/2021	<0.00102	<0.00102	
5/12/2021			0.000575 (J)
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	<0.00102	<0.00102	0.00071 (J)

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.00102	<0.00102	<0.00102
4/18/2016	0.000681 (J)	<0.00102	<0.00102
6/6/2016	<0.00102	<0.00102	
6/7/2016			<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	<0.00102		<0.00102
5/2/2017	0.000704 (J)	<0.00102	<0.00102
6/6/2017	<0.00102		
6/7/2017		<0.00102	<0.00102
1/22/2018	<0.00102	<0.00102	
1/24/2018			<0.00102
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018	<0.00102		
11/27/2018		<0.00102	<0.00102
5/28/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102	<0.00102	<0.00102
5/12/2021	0.000763 (J)	0.000464 (J)	<0.00102
10/18/2021	<0.00102	<0.00102	
10/19/2021			<0.00102
5/31/2022	0.00066 (J)		
6/1/2022		<0.00102	<0.00102

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.00102	
4/19/2016	<0.00102	
6/7/2016	<0.00102	
8/30/2016	<0.00102	
10/18/2016	<0.00102	
1/30/2017	<0.00102	
5/2/2017	<0.00102	
6/7/2017	<0.00102	
1/23/2018	<0.00102	
5/1/2018	<0.00102	
11/26/2018	<0.00102	
5/29/2019	<0.00102	
10/2/2019	<0.00102	
3/31/2020	<0.00102	<0.00102
9/8/2020		<0.00102
9/9/2020	<0.00102	
5/12/2021	<0.00102	<0.00102
10/19/2021	<0.00102	<0.00102
6/1/2022	<0.00102	<0.00102

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.0212 (J)	0.0294 (J)	0.0252 (J)
4/19/2016	<0.1015	0.0257 (J)	<0.1015
6/6/2016	<0.1015		
6/7/2016		0.0257 (J)	0.0202 (J)
8/30/2016	<0.1015	0.0317 (J)	<0.1015
10/18/2016	<0.1015	<0.1015	<0.1015
1/30/2017		0.0243 (J)	
1/31/2017	<0.1015		<0.1015
5/2/2017	<0.1015	0.0259 (J)	<0.1015
6/6/2017	<0.1015		<0.1015
6/7/2017		<0.1015	
9/13/2017	<0.1015	0.0394 (J)	<0.1015
5/1/2018		0.0338 (J)	<0.1015
5/2/2018	0.0362 (J)		
11/26/2018		0.0484 (J)	
11/27/2018	0.11		0.0207 (J)
5/29/2019	0.188	0.0669 (J)	<0.1015
10/2/2019	0.097 (J)	0.0671 (J)	<0.1015
3/31/2020	0.157	0.0442 (J)	<0.1015
9/9/2020	0.0999 (J)	0.0509 (J)	<0.1015
5/11/2021			<0.1015
5/12/2021	0.0841 (J)	0.0423 (J)	
10/19/2021	0.0708 (J)	0.0444 (J)	<0.1015
5/31/2022	0.0567 (J)		<0.1015
6/1/2022		0.0493 (J)	

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.1015	0.0257 (J)	0.163
4/18/2016			0.361
4/19/2016	<0.1015	<0.1015	
6/6/2016		<0.1015	
6/7/2016	<0.1015		0.169
8/30/2016	<0.1015	<0.1015	0.0858 (J)
10/18/2016	<0.1015	0.022 (J)	0.0778 (J)
1/31/2017	<0.1015	<0.1015	0.077 (J)
5/2/2017	<0.1015	<0.1015	0.0602 (J)
6/6/2017	<0.1015	<0.1015	0.0442 (J)
9/12/2017		<0.1015	
9/13/2017	<0.1015		0.0411 (J)
5/1/2018	<0.1015	<0.1015	
5/2/2018			0.0334 (J)
11/26/2018		<0.1015	
11/27/2018	<0.1015		0.0265 (J)
5/28/2019		<0.1015	<0.1015
5/29/2019	<0.1015		
10/2/2019	<0.1015	<0.1015	<0.1015
3/30/2020			<0.1015
3/31/2020	<0.1015	<0.1015	
9/8/2020		<0.1015	0.521
9/9/2020	<0.1015		
5/11/2021	<0.1015	<0.1015	
5/12/2021			0.511
10/18/2021	<0.1015	<0.1015	
10/19/2021			0.243
5/31/2022	<0.1015	<0.1015	0.939

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.638	0.0314 (J)	<0.1015
4/18/2016	0.908	<0.1015	<0.1015
6/6/2016	0.733	<0.1015	
6/7/2016			<0.1015
8/30/2016	0.448	<0.1015	<0.1015
10/18/2016	0.249	<0.1015	0.0207 (J)
1/30/2017		<0.1015	
1/31/2017	0.121		<0.1015
5/2/2017	0.0695 (J)	<0.1015	<0.1015
6/6/2017	0.0509 (J)		
6/7/2017		<0.1015	<0.1015
9/12/2017	0.0709 (J)	<0.1015	
9/13/2017			<0.1015
5/1/2018	0.0365 (J)	<0.1015	
5/2/2018			<0.1015
11/26/2018	0.0836 (J)		
11/27/2018		<0.1015	<0.1015
5/28/2019	0.556	<0.1015	<0.1015
10/2/2019	0.186	<0.1015	<0.1015
3/30/2020	0.304	<0.1015	<0.1015
9/8/2020	0.362	<0.1015	<0.1015
5/12/2021	0.876	<0.1015	<0.1015
10/18/2021	0.987	<0.1015	
10/19/2021			0.0303 (J)
5/31/2022	0.685		
6/1/2022		<0.1015	<0.1015

Time Series

Constituent: Boron (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	0.0297 (J)	
4/19/2016	0.0269 (J)	
6/7/2016	0.0271 (J)	
8/30/2016	0.0272 (J)	
10/18/2016	<0.1015	
1/30/2017	0.0269 (J)	
5/2/2017	0.027 (J)	
6/7/2017	<0.1015	
9/13/2017	0.032 (J)	
5/1/2018	0.0302 (J)	
11/26/2018	0.139	
5/29/2019	0.141	
10/2/2019	0.116	
3/31/2020	0.112	0.0864 (J)
9/8/2020		0.0638 (J)
9/9/2020	0.0873 (J)	
5/12/2021	0.0834 (J)	0.0742 (J)
10/19/2021	0.0966 (J)	0.0551 (J)
6/1/2022	0.0933 (J)	0.0564 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			<0.0002
5/12/2021	<0.0002	<0.0002	
10/19/2021	<0.0002	<0.0002	<0.0002
5/31/2022	<0.0002		<0.0002
6/1/2022		<0.0002	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	<0.0002	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	<0.0002	
5/12/2021			8.67E-05 (J)
10/18/2021	7E-05 (J)	<0.0002	
10/19/2021			0.00014 (J)
5/31/2022	<0.0002	<0.0002	0.00012 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	0.000154 (J)	<0.0002	<0.0002
10/18/2021	0.00011 (J)	<0.0002	
10/19/2021			<0.0002
5/31/2022	0.00023		
6/1/2022		<0.0002	<0.0002

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002
6/1/2022	<0.0002	<0.0002

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	1.28	0.795	1.11
4/19/2016	1.19	0.761	1.09
6/6/2016	1.19		
6/7/2016		0.799	1.16
8/30/2016	1.11	0.788	1.08
10/18/2016	1.04	0.788	1.03
1/30/2017		0.755	
1/31/2017	1.19		1.23
5/2/2017	1.05	0.763	1.28
6/6/2017	0.978		1.25
6/7/2017		0.706	
9/13/2017	1.14	0.873	1.6
5/1/2018		1.05	1.58
5/2/2018	1.64		
11/26/2018		0.922	
11/27/2018	2.01		1.49
5/29/2019	1.85	1.07	1.59
10/2/2019	1.55	1.32	1.7
3/31/2020	1.96	0.98	1.43
9/9/2020	1.43	1.1	1.5
5/11/2021			1.39
5/12/2021	1.34	1.06	
10/19/2021	1.17	0.977	1.32
5/31/2022	1.14		1.24
6/1/2022		1.04	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	1.77	1.42	2.42
4/18/2016			4.65
4/19/2016	1.68	1.31	
6/6/2016		1.35	
6/7/2016	1.68		3.1
8/30/2016	1.62	1.31	2.19
10/18/2016	1.53	1.22	1.97
1/31/2017	1.65	1.36	1.73
5/2/2017	1.58	1.24	1.74
6/6/2017	1.55	1.28	1.66
9/12/2017		1.47	
9/13/2017	1.71		1.61
5/1/2018	1.76	1.47	
5/2/2018			1.44
11/26/2018		1.52	
11/27/2018	1.69		1.3
5/28/2019		1.6	1.25
5/29/2019	1.74		
10/2/2019	1.86	1.7	1.33
3/30/2020			1.26
3/31/2020	1.92	1.78	
9/8/2020		1.94	3.24
9/9/2020	1.97		
5/11/2021	2.06	1.93	
5/12/2021			7
10/18/2021	2.1	2.01	
10/19/2021			2.75
5/31/2022	1.95	2.02	8.52

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	18.3	1.4	0.618
4/18/2016	23.2	1.2	0.505
6/6/2016	19.7	1.48	
6/7/2016			0.587
8/30/2016	10.9	1.13	0.495 (J)
10/18/2016	8.74	1.45	0.503
1/30/2017		1.95	
1/31/2017	7.89		0.554
5/2/2017	5.81	0.908	0.548
6/6/2017	4.72		
6/7/2017		1.29	0.545
9/12/2017	4.39	1.44	
9/13/2017			0.723
5/1/2018	4.66	0.695	
5/2/2018			0.751
11/26/2018	3.41		
11/27/2018		0.798	0.743
5/28/2019	10	0.973	0.789
10/2/2019	4.94	0.929	0.882
3/30/2020	7.56	1.32	0.841
9/8/2020	6.38	1.12	0.981
5/12/2021	13.5	1.63	1.02
10/18/2021	9.06	1.53	
10/19/2021			1.01
5/31/2022	9.98		
6/1/2022		1.27	0.94

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	1.15	
4/19/2016	1.04	
6/7/2016	1.22	
8/30/2016	1.18	
10/18/2016	1.12	
1/30/2017	1.23	
5/2/2017	1.2	
6/7/2017	1.17	
9/13/2017	1.25	
5/1/2018	1.25	
11/26/2018	1.61	
5/29/2019	1.8	
10/2/2019	1.85	
3/31/2020	1.67	0.663
9/8/2020		0.724
9/9/2020	1.79	
5/12/2021	1.82	0.861
10/19/2021	1.75	0.941
6/1/2022	1.55	1.13

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	3.59	3.57	3.99
4/19/2016	2.89	3.12	4.08
6/6/2016	3.12		
6/7/2016		3.14	4.28
8/30/2016	3.91	2.93	4.26
10/18/2016	3.9	2.96	4.26
3/20/2017	3.5		4.1
3/21/2017		4.4	
5/2/2017	3.5	3.7	5
6/6/2017	3.1		3.9
6/7/2017		3.3	
9/13/2017	<2 (U*)	5.1	<2 (U*)
5/1/2018		4	3.7
5/2/2018	9.9		
11/26/2018		3.8	
11/27/2018	4.7		3.2
5/29/2019	5.48	4.34	2.93
10/2/2019	3.65	4.34	2.75
3/31/2020	3.17	3.89	2.72
9/9/2020	2.92	4.11	2.32
5/11/2021			2.16
5/12/2021	2.18	3.94	
10/19/2021	2.37	3.79	2.08
5/31/2022	1.93		2.17
6/1/2022		3.35	

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	3.68	3.5	3.86
4/18/2016			4.46
4/19/2016	3.72	3.63	
6/6/2016		3.6	
6/7/2016	3.66		3.74
8/30/2016	3.7	3.54	3.5
10/18/2016	3.77	3.68	3.5
3/20/2017	3.7	4.6	
3/21/2017			2.8
5/2/2017	4.6	3.9	3.9
6/6/2017	3.4	3.4	3.4
9/12/2017		4.3	
9/13/2017	<2 (U*)		<2 (U*)
5/1/2018	4.1	3.8	
5/2/2018			3.5
11/26/2018		3.6	
11/27/2018	3.5		3.7
5/28/2019		3.6	3.69
5/29/2019	3.58		
10/2/2019	3.64	3.5	3.49
3/30/2020			3.45
3/31/2020	3.47	3.34	
9/8/2020		3.29	6.23
9/9/2020	3.47		
5/11/2021	3.42	3.33	
5/12/2021			5.89
10/18/2021	3.45	3.32	
10/19/2021			4.81
5/31/2022	3.39	3.31	7.83

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	6.06	4.08	4.47
4/18/2016	6.13	4.14	4.74
6/6/2016	5.52	4.09	
6/7/2016			4.52
8/30/2016	5.35	4.6	4.71
10/18/2016	4.55	8.32	4.73
3/21/2017	3.5	5.6	4.9
5/2/2017	4.8	4.8	5.7
6/6/2017	3.6		
6/7/2017		6.3	4.1
9/12/2017	4.3	8.5	
9/13/2017			4.9
5/1/2018	3.8	4	
5/2/2018			4.1
11/26/2018	3.5		
11/27/2018		4.3	4.9
5/28/2019	6.26	4.63	4.43
10/2/2019	4.13	5.02	4.32
3/30/2020	4.95	10.5	4.38
9/8/2020	5.71	8.74	4.61
5/12/2021	7.77	17.2	5.25
10/18/2021	10	16.8	
10/19/2021			5.34
5/31/2022	7.22		
6/1/2022		14.7	5.38

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	4.13
9/8/2020		3.96
9/9/2020	7.94	
5/12/2021	8.77	4.89
10/19/2021	6.33	5.02
6/1/2022	4.29	7.97

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.01	<0.01	<0.01
4/19/2016	<0.01	<0.01	<0.01
6/6/2016	<0.01		
6/7/2016		<0.01	<0.01
8/30/2016	<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01	<0.01
1/30/2017		<0.01	
1/31/2017	<0.01		<0.01
5/2/2017	<0.01	<0.01	<0.01
6/6/2017	<0.01		<0.01
6/7/2017		<0.01	
1/23/2018	<0.01	<0.01	0.00596 (J)
5/1/2018		<0.01	<0.01
5/2/2018	<0.01		
11/26/2018		<0.01	
11/27/2018	<0.01		<0.01
5/29/2019	<0.01	<0.01	<0.01
10/2/2019	<0.01	<0.01	<0.01
3/31/2020	<0.01	<0.01	<0.01
9/9/2020	<0.01	<0.01	<0.01
5/11/2021			0.00136
5/12/2021	0.000296 (J)	0.000695 (J)	
10/19/2021	0.0003 (J)	0.00079 (J)	0.00135
5/31/2022	0.00033 (J)		0.0012
6/1/2022		0.00089 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.01	<0.01	<0.01
4/18/2016			<0.01
4/19/2016	<0.01	<0.01	
6/6/2016		<0.01	
6/7/2016	<0.01		<0.01
8/30/2016	<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01	<0.01
1/31/2017	<0.01	<0.01	<0.01
5/2/2017	<0.01	<0.01	<0.01
6/6/2017	<0.01	<0.01	<0.01
1/23/2018	0.00229 (J)	<0.01	
1/24/2018			<0.01
5/1/2018	<0.01	<0.01	
5/2/2018			<0.01
11/26/2018		<0.01	
11/27/2018	<0.01		<0.01
5/28/2019		<0.01	<0.01
5/29/2019	<0.01		
10/2/2019	<0.01	<0.01	<0.01
3/30/2020			<0.01
3/31/2020	<0.01	0.00604 (J)	
9/8/2020		<0.01	0.00221 (J)
9/9/2020	<0.01		
5/11/2021	0.00146	0.00159	
5/12/2021			0.00232
10/18/2021	0.0013	0.00146	
10/19/2021			0.00268
5/31/2022	0.00139	0.00156	0.00281

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.00209 (J)	<0.01	<0.01
4/18/2016	0.00324 (J)	<0.01	0.00201 (J)
6/6/2016	0.0031 (J)	<0.01	
6/7/2016			<0.01
8/30/2016	0.00227 (J)	<0.01	0.00205 (J)
10/18/2016	<0.01	<0.01	0.00218 (J)
1/30/2017		<0.01	
1/31/2017	<0.01		<0.01
5/2/2017	<0.01	<0.01	0.00208 (J)
6/6/2017	<0.01		
6/7/2017		<0.01	0.0022 (J)
1/22/2018	<0.01	<0.01	
1/24/2018			0.00258 (J)
5/1/2018	<0.01	<0.01	
5/2/2018			0.00202 (J)
11/26/2018	<0.01		
11/27/2018		<0.01	<0.01
5/28/2019	0.00223 (J)	<0.01	0.00209 (J)
10/2/2019	<0.01	<0.01	0.00223 (J)
3/30/2020	0.00273 (J)	<0.01	0.00275 (J)
9/8/2020	0.00237 (J)	<0.01	0.00224 (J)
5/12/2021	0.0034	0.00139	0.00218
10/18/2021	0.00335	0.00131	
10/19/2021			0.00246
5/31/2022	0.00412		
6/1/2022		0.00157	0.00226

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.01	
4/19/2016	<0.01	
6/7/2016	<0.01	
8/30/2016	<0.01	
10/18/2016	<0.01	
1/30/2017	<0.01	
5/2/2017	<0.01	
6/7/2017	<0.01	
1/23/2018	<0.01	
5/1/2018	<0.01	
11/26/2018	<0.01	
5/29/2019	<0.01	
10/2/2019	<0.01	
3/31/2020	<0.01	0.00249 (J)
9/8/2020		0.00253 (J)
9/9/2020	<0.01	
5/12/2021	0.000783 (J)	0.00281
10/19/2021	0.00081 (J)	0.00336
6/1/2022	0.00104	0.00292

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.0035 (J)	0.00247 (J)	<0.005
4/19/2016	0.0038 (J)	0.00241 (J)	<0.005
6/6/2016	0.00427 (J)		
6/7/2016		0.00247 (J)	<0.005
8/30/2016	0.00348 (J)	0.00251 (J)	<0.005
10/18/2016	0.00338 (J)	0.00272 (J)	<0.005
1/30/2017		<0.005	
1/31/2017	0.00308 (J)		<0.005
5/2/2017	0.00314 (J)	0.00205 (J)	<0.005
6/6/2017	0.0036 (J)		<0.005
6/7/2017		0.00201 (J)	
1/23/2018	0.00586 (J)	0.00229 (J)	0.0021 (J)
5/1/2018		0.00216 (J)	<0.005
5/2/2018	0.00702 (J)		
11/26/2018		0.00205 (J)	
11/27/2018	0.0157		0.00209 (J)
5/29/2019	0.0109	0.00261 (J)	0.00248 (J)
10/2/2019	0.0129	0.00262 (J)	0.00244 (J)
3/31/2020	0.0123	0.00238 (J)	0.00224 (J)
9/9/2020	0.00697	0.00241 (J)	0.00219 (J)
5/11/2021			0.00194
5/12/2021	0.00611	0.00237	
10/19/2021	0.00517	0.00238	0.00192
5/31/2022	0.00487		0.00194
6/1/2022		0.0027	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.005	<0.005	<0.005
4/18/2016			0.00278 (J)
4/19/2016	<0.005	<0.005	
6/6/2016		<0.005	
6/7/2016	<0.005		<0.005
8/30/2016	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005
1/31/2017	<0.005	<0.005	<0.005
5/2/2017	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005	<0.005
1/23/2018	<0.005	<0.005	
1/24/2018			<0.005
5/1/2018	<0.005	<0.005	
5/2/2018			<0.005
11/26/2018		<0.005	
11/27/2018	<0.005		<0.005
5/28/2019		<0.005	<0.005
5/29/2019	<0.005		
10/2/2019	<0.005	<0.005	<0.005
3/30/2020			<0.005
3/31/2020	<0.005	<0.005	
9/8/2020		<0.005	0.00227 (J)
9/9/2020	<0.005		
5/11/2021	0.00142	0.00137	
5/12/2021			0.0046
10/18/2021	0.00146	0.00139	
10/19/2021			0.00217
5/31/2022	0.00149	0.0015	0.00606

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.005	<0.005	<0.005
4/18/2016	0.00338 (J)	<0.005	<0.005
6/6/2016	0.00361 (J)	<0.005	
6/7/2016			<0.005
8/30/2016	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005
1/30/2017		<0.005	
1/31/2017	<0.005		<0.005
5/2/2017	<0.005	<0.005	<0.005
6/6/2017	<0.005		
6/7/2017		<0.005	<0.005
1/22/2018	<0.005	<0.005	
1/24/2018			<0.005
5/1/2018	<0.005	<0.005	
5/2/2018			<0.005
11/26/2018	<0.005		
11/27/2018		<0.005	<0.005
5/28/2019	0.00301 (J)	<0.005	<0.005
10/2/2019	<0.005	<0.005	<0.005
3/30/2020	0.0031 (J)	<0.005	<0.005
9/8/2020	0.00296 (J)	<0.005	<0.005
5/12/2021	0.0054	0.00192	0.000437
10/18/2021	0.00552	0.00164	
10/19/2021			0.00049
5/31/2022	0.00724		
6/1/2022		0.00162	0.00048

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.005	
4/19/2016	<0.005	
6/7/2016	<0.005	
8/30/2016	<0.005	
10/18/2016	<0.005	
1/30/2017	<0.005	
5/2/2017	<0.005	
6/7/2017	<0.005	
1/23/2018	<0.005	
5/1/2018	<0.005	
11/26/2018	<0.005	
5/29/2019	<0.005	
10/2/2019	<0.005	
3/31/2020	<0.005	<0.005
9/8/2020		<0.005
9/9/2020	<0.005	
5/12/2021	0.00177	0.00101
10/19/2021	0.00156	0.00117
6/1/2022	0.00131	0.00143

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	2.8971 (U)	3 (U)	3 (U)
4/19/2016	3 (U)	3 (U)	3 (U)
6/6/2016	0.841		
6/7/2016		1.03	0.652
8/30/2016	1.74	1.05	0.411 (U)
10/18/2016	1.47	1.36	1
1/30/2017		0.847	
1/31/2017	0.952		0.398 (U)
5/2/2017	0.768	0.649	0.66
6/6/2017	1.04		0.639
6/7/2017		1.4	
1/23/2018	0.513 (U)	1.36 (U)	0.669 (U)
5/1/2018		1.03	1.06
5/2/2018	0.916		
11/26/2018		1.04	
11/27/2018	1.37		0.636
5/29/2019	1.57	0.548 (U)	0.579 (U)
10/2/2019	0.905	2.19	1.33
3/31/2020	1.77	1.01	0.814
9/9/2020	1.77	1.32	0.653 (U)
5/11/2021			0.945 (U)
5/12/2021	0.639 (U)	2.02	
10/19/2021	1.77	1.6 (V)	1.85
5/31/2022	1.34		1.38
6/1/2022		2.27	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	3 (U)	2.1138	3 (U)
4/18/2016			3 (U)
4/19/2016	3 (U)	3 (U)	
6/6/2016		0.757	
6/7/2016	0.342 (U)		1.03
8/30/2016	0.702	0.992	0.696
10/18/2016	0.791	0.905	0.966
1/31/2017	0.0613 (U)	1.08	0.724
5/2/2017	0.974	1.18	0.587
6/6/2017	0.748	1.1	0.591
1/23/2018	0.558 (U)	1.32 (U)	
1/24/2018			0.566 (U)
5/1/2018	0.296 (U)	1.19	
5/2/2018			0.401
11/26/2018		0.863	
11/27/2018	0.357 (U)		0.611
5/28/2019		0.474 (U)	0.391 (U)
5/29/2019	0.275 (U)		
10/2/2019	0.458 (U)	0.624 (U)	0.954
3/30/2020			0.525
3/31/2020	0.941	1.09	
9/8/2020		1.27	0.845
9/9/2020	1.05		
5/11/2021	0.521 (U)	0.969 (U)	
5/12/2021			0.465 (U)
10/18/2021	1.75	2.19	
10/19/2021			0.719 (U)
5/31/2022	1.67	1.47	2.31

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	1.2261 (U)	3 (U)	3 (U)
4/18/2016	1.92351 (U)	3 (U)	3 (U)
6/6/2016	1.47	0.427	
6/7/2016			0.69
8/30/2016	1.91	0.869	0.687
10/18/2016	0.966	0.927	0.62
1/30/2017		0.649	
1/31/2017	1.01		0.266 (U)
5/2/2017	1.41	0.804	0.853
6/6/2017	0.476		
6/7/2017		0.136 (U)	0.477
1/22/2018	0.814 (U)	0.726 (U)	
1/24/2018			0.411 (U)
5/1/2018	0.931	0.63	
5/2/2018			0.718
11/26/2018	0.815		
11/27/2018		0.109 (U)	0.691
5/28/2019	2.08	-0.428 (U)	0.311 (U)
10/2/2019	0.836	0.43 (U)	0.969
3/30/2020	1.54	0.939	0.397 (U)
9/8/2020	0.402 (U)	1.13	0.0249 (U)
5/12/2021	2.47	1.09	1.29
10/18/2021	2.03	0.69 (U)	
10/19/2021			1.54
5/31/2022	2.22		
6/1/2022		0.99	1.37

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	3 (U)	
4/19/2016	3.81872	
6/7/2016	0.941	
8/30/2016	0.98	
10/18/2016	1.06	
1/30/2017	1.15	
5/2/2017	1.31	
6/7/2017	1.12	
1/23/2018	1.16 (U)	
5/1/2018	0.961	
11/26/2018	1.72	
5/29/2019	2.2	
10/2/2019	2	
3/31/2020	1.88	0.968
9/8/2020		0.468 (U)
9/9/2020	2.11	
5/12/2021	1.94	0.515 (U)
10/19/2021	3.15	0.87 (U)
6/1/2022	2.05	1.13

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	0.03 (J)	0.05 (J)	0.02 (J)
4/19/2016	0.023 (J)	0.05 (J)	0.021 (J)
6/6/2016	0.062 (J)		
6/7/2016		0.098 (J)	0.06 (J)
8/30/2016	0.053 (J)	0.089 (J)	0.05 (J)
10/18/2016	0.042 (J)	0.092 (J)	0.04 (J)
3/20/2017	<0.125		<0.125
3/21/2017		0.06 (J)	
5/2/2017	0.04 (J)	0.07 (J)	0.04 (J)
6/6/2017	<0.125		0.04 (J)
6/7/2017		0.07 (J)	
9/13/2017	0.04 (J)	0.08 (J)	0.043 (J)
1/23/2018	<0.125	0.08 (J)	0.04 (J)
5/1/2018		0.09 (J)	0.04 (J)
5/2/2018	0.04 (J)		
11/26/2018		0.08 (J)	
11/27/2018	<0.125		<0.125
5/29/2019	0.0502 (J)	<0.125	<0.125
10/2/2019	<0.125	<0.125	<0.125
3/31/2020	<0.125	<0.125	<0.125
9/9/2020	<0.125	<0.125	<0.125
5/11/2021			<0.125
5/12/2021	<0.125	<0.125	
10/19/2021	<0.125	<0.125	<0.125
5/31/2022	<0.125		<0.125
6/1/2022		<0.125	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	0.02 (J)	0.02 (J)	0.02 (J)
4/18/2016			0.04 (J)
4/19/2016	0.016 (J)	0.015 (J)	
6/6/2016		0.05 (J)	
6/7/2016	0.052 (J)		0.066 (J)
8/30/2016	0.038 (J)	0.036 (J)	0.046 (J)
10/18/2016	0.03 (J)	0.025 (J)	0.034 (J)
3/20/2017	<0.125	<0.125	
3/21/2017			<0.125
5/2/2017	<0.125	<0.125	<0.125
6/6/2017	<0.125	<0.125	<0.125
9/12/2017		<0.125	
9/13/2017	<0.125		<0.125
1/23/2018	<0.125	<0.125	
1/24/2018			<0.125
5/1/2018	<0.125	<0.125	
5/2/2018			<0.125
11/26/2018		<0.125	
11/27/2018	<0.125		<0.125
5/28/2019		<0.125	<0.125
5/29/2019	<0.125		
10/2/2019	<0.125	<0.125	<0.125
3/30/2020			<0.125
3/31/2020	<0.125	<0.125	
9/8/2020		<0.125	<0.125
9/9/2020	<0.125		
5/11/2021	<0.125	<0.125	
5/12/2021			<0.125
10/18/2021	<0.125	<0.125	
10/19/2021			<0.125
5/31/2022	<0.125	<0.125	<0.125

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.06 (J)	0.02 (J)	0.02 (J)
4/18/2016	0.138 (J)	0.018 (J)	0.019 (J)
6/6/2016	0.148 (J)	0.051 (J)	
6/7/2016			0.053 (J)
8/30/2016	0.072 (J)	0.039 (J)	0.038 (J)
10/18/2016	0.049 (J)	0.025 (J)	0.028 (J)
3/21/2017	<0.125	<0.125	<0.125
5/2/2017	<0.125	<0.125	<0.125
6/6/2017	<0.125		
6/7/2017		<0.125	<0.125
9/12/2017	<0.125	<0.125	
9/13/2017			<0.125
1/22/2018	<0.125	<0.125	
1/24/2018			<0.125
5/1/2018	<0.125	<0.125	
5/2/2018			<0.125
11/26/2018	<0.125		
11/27/2018		<0.125	<0.125
5/28/2019	0.0591 (J)	<0.125	<0.125
10/2/2019	<0.125	<0.125	<0.125
3/30/2020	<0.125	<0.125	<0.125
9/8/2020	<0.125	<0.125	<0.125
5/12/2021	<0.125	<0.125	<0.125
10/18/2021	<0.125	<0.125	
10/19/2021			<0.125
5/31/2022	<0.125		
6/1/2022		<0.125	<0.125

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	0.05 (J)	
4/19/2016	0.039 (J)	
6/7/2016	0.085 (J)	
8/30/2016	0.078 (J)	
10/18/2016	0.071 (J)	
3/21/2017	0.05 (J)	
5/2/2017	0.06 (J)	
6/7/2017	0.07 (J)	
9/13/2017	0.08 (J)	
1/23/2018	0.07 (J)	
5/1/2018	0.07 (J)	
11/26/2018	0.07 (J)	
5/29/2019	<0.125	
10/2/2019	<0.125	
3/31/2020	<0.125	<0.125
9/8/2020		<0.125
9/9/2020	<0.125	
5/12/2021	<0.125	<0.125
10/19/2021	<0.125	<0.125
6/1/2022	<0.125	<0.125

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			0.000118 (J)
5/12/2021	9.79E-05 (J)	0.000113 (J)	
10/19/2021	0.00012 (J)	0.0001 (J)	0.0001 (J)
5/31/2022	8E-05 (J)		8E-05 (J)
6/1/2022		0.0001 (J)	

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	0.00126 (J)	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	0.000159 (J)	
5/12/2021			9.94E-05 (J)
10/18/2021	<0.0002	0.00012 (J)	
10/19/2021			0.00026
5/31/2022	<0.0002	0.00017 (J)	0.00018 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	0.000213	7.98E-05 (J)	<0.0002
10/18/2021	0.00011 (J)	8E-05 (J)	
10/19/2021			<0.0002
5/31/2022	0.00011 (J)		
6/1/2022		8E-05 (J)	<0.0002

Time Series

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	0.000288	0.000208
10/19/2021	0.00025	0.00014 (J)
6/1/2022	0.00023	0.00012 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.02	<0.02	<0.02
4/19/2016	<0.02	<0.02	<0.02
6/6/2016	<0.02		
6/7/2016		<0.02	<0.02
8/30/2016	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02
1/30/2017		<0.02	
1/31/2017	<0.02		<0.02
5/2/2017	<0.02	<0.02	<0.02
6/6/2017	<0.02		<0.02
6/7/2017		<0.02	
1/23/2018	<0.02	<0.02	<0.02
5/1/2018		<0.02	<0.02
5/2/2018	<0.02		
11/26/2018		<0.02	
11/27/2018	<0.02		<0.02
5/29/2019	<0.02	<0.02	<0.02
10/2/2019	<0.02	<0.02	<0.02
3/31/2020	<0.02	<0.02	<0.02
9/9/2020	<0.02	<0.02	<0.02
5/11/2021			<0.02
5/12/2021	<0.02	<0.02	
10/19/2021	<0.02	<0.02	<0.02
5/31/2022	<0.02		<0.02
6/1/2022		<0.02	

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.02	<0.02	<0.02
4/18/2016			<0.02
4/19/2016	<0.02	<0.02	
6/6/2016		<0.02	
6/7/2016	<0.02		<0.02
8/30/2016	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02
1/31/2017	<0.02	<0.02	<0.02
5/2/2017	<0.02	<0.02	<0.02
6/6/2017	<0.02	<0.02	<0.02
1/23/2018	<0.02	<0.02	
1/24/2018			<0.02
5/1/2018	<0.02	<0.02	
5/2/2018			<0.02
11/26/2018		<0.02	
11/27/2018	<0.02		<0.02
5/28/2019		<0.02	<0.02
5/29/2019	<0.02		
10/2/2019	<0.02	<0.02	<0.02
3/30/2020			<0.02
3/31/2020	<0.02	<0.02	
9/8/2020		<0.02	<0.02
9/9/2020	<0.02		
5/11/2021	<0.02	<0.02	
5/12/2021			<0.02
10/18/2021	<0.02	<0.02	
10/19/2021			<0.02
5/31/2022	<0.02	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.02	<0.02	<0.02
4/18/2016	<0.02	<0.02	<0.02
6/6/2016	<0.02	<0.02	
6/7/2016			<0.02
8/30/2016	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02
1/30/2017		<0.02	
1/31/2017	<0.02		<0.02
5/2/2017	<0.02	<0.02	<0.02
6/6/2017	<0.02		
6/7/2017		<0.02	<0.02
1/22/2018	<0.02	<0.02	
1/24/2018			<0.02
5/1/2018	<0.02	<0.02	
5/2/2018			<0.02
11/26/2018	<0.02		
11/27/2018		<0.02	<0.02
5/28/2019	<0.02	<0.02	<0.02
10/2/2019	<0.02	<0.02	<0.02
3/30/2020	<0.02	<0.02	<0.02
9/8/2020	<0.02	<0.02	<0.02
5/12/2021	<0.02	<0.02	<0.02
10/18/2021	<0.02	<0.02	
10/19/2021			<0.02
5/31/2022	<0.02		
6/1/2022		<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.02	
4/19/2016	<0.02	
6/7/2016	<0.02	
8/30/2016	<0.02	
10/18/2016	<0.02	
1/30/2017	<0.02	
5/2/2017	<0.02	
6/7/2017	<0.02	
1/23/2018	<0.02	
5/1/2018	<0.02	
11/26/2018	<0.02	
5/29/2019	<0.02	
10/2/2019	<0.02	
3/31/2020	<0.02	<0.02
9/8/2020		<0.02
9/9/2020	<0.02	
5/12/2021	<0.02	<0.02
10/19/2021	<0.02	<0.02
6/1/2022	<0.02	<0.02

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0005	<0.0005	<0.0005
4/19/2016	<0.0005	<0.0005	<0.0005
6/6/2016	<0.0005		
6/7/2016		<0.0005	<0.0005
8/30/2016	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005
1/30/2017		<0.0005	
1/31/2017	<0.0005		<0.0005
5/2/2017	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005		<0.0005
6/7/2017		<0.0005	
1/23/2018	<0.0005	<0.0005	<0.0005
5/1/2018		<0.0005	<0.0005
5/2/2018	<0.0005		
11/26/2018		<0.0005	
11/27/2018	<0.0005		<0.0005
5/29/2019	<0.0005	<0.0005	<0.0005
10/2/2019	<0.0005	<0.0005	<0.0005
3/31/2020	<0.0005	<0.0005	<0.0005
9/9/2020	<0.0005	<0.0005	<0.0005
5/11/2021			<0.0005
5/12/2021	<0.0005	<0.0005	
10/19/2021	<0.0005	<0.0005	<0.0005
5/31/2022	<0.0005		<0.0005
6/1/2022		<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0005	<0.0005	<0.0005
4/18/2016			<0.0005
4/19/2016	<0.0005	<0.0005	
6/6/2016		<0.0005	
6/7/2016	<0.0005		<0.0005
8/30/2016	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005
1/31/2017	<0.0005	<0.0005	<0.0005
5/2/2017	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005	<0.0005	<0.0005
1/23/2018	<0.0005	<0.0005	
1/24/2018			<0.0005
5/1/2018	<0.0005	<0.0005	
5/2/2018			<0.0005
11/26/2018		<0.0005	
11/27/2018	<0.0005		<0.0005
5/28/2019		<0.0005	<0.0005
5/29/2019	<0.0005		
10/2/2019	<0.0005	<0.0005	<0.0005
3/30/2020			<0.0005
3/31/2020	<0.0005	<0.0005	
9/8/2020		<0.0005	<0.0005
9/9/2020	<0.0005		
5/11/2021	<0.0005	<0.0005	
5/12/2021			<0.0005
10/18/2021	<0.0005	<0.0005	
10/19/2021			<0.0005
5/31/2022	<0.0005	<0.0005	0.00036 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0005	<0.0005	<0.0005
4/18/2016	<0.0005	<0.0005	<0.0005
6/6/2016	<0.0005	<0.0005	
6/7/2016			0.00031 (J)
8/30/2016	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005
1/30/2017		<0.0005	
1/31/2017	<0.0005		<0.0005
5/2/2017	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005		
6/7/2017		<0.0005	<0.0005
1/22/2018	<0.0005	<0.0005	
1/24/2018			<0.0005
5/1/2018	<0.0005	<0.0005	
5/2/2018			<0.0005
11/26/2018	<0.0005		
11/27/2018		<0.0005	<0.0005
5/28/2019	<0.0005	<0.0005	<0.0005
10/2/2019	<0.0005	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005	<0.0005
9/8/2020	<0.0005	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005	<0.0005
10/18/2021	<0.0005	<0.0005	
10/19/2021			<0.0005
5/31/2022	0.00035 (J)		
6/1/2022		<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0005	
4/19/2016	<0.0005	
6/7/2016	<0.0005	
8/30/2016	<0.0005	
10/18/2016	<0.0005	
1/30/2017	<0.0005	
5/2/2017	<0.0005	
6/7/2017	<0.0005	
1/23/2018	<0.0005	
5/1/2018	<0.0005	
11/26/2018	<0.0005	
5/29/2019	<0.0005	
10/2/2019	<0.0005	
3/31/2020	<0.0005	<0.0005
9/8/2020		<0.0005
9/9/2020	<0.0005	
5/12/2021	<0.0005	<0.0005
10/19/2021	<0.0005	<0.0005
6/1/2022	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			<0.0002
5/12/2021	<0.0002	<0.0002	
10/19/2021	<0.0002	<0.0002	<0.0002
5/31/2022	<0.0002		<0.0002
6/1/2022		<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	<0.0002	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	<0.0002	
5/12/2021			<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			0.0001 (J)
5/31/2022	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002	<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			8E-05 (J)
5/31/2022	<0.0002		
6/1/2022		<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002
6/1/2022	<0.0002	<0.0002

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	4.62	4.67	4.79
4/19/2016	4.74	4.79	4.84
6/6/2016	4.65		
6/7/2016		4.73	4.81
8/30/2016	4.64	4.68	4.76
10/18/2016	4.74	4.75	4.84
1/30/2017		4.65	
1/31/2017	4.54		4.6
3/20/2017	4.67		4.71
3/21/2017		4.68	
5/2/2017	4.79	4.75	4.8
6/6/2017	4.76		4.72
6/7/2017		4.7	
9/13/2017	4.81	4.71	4.71
1/23/2018	4.79	4.6	4.67
5/1/2018		4.61	4.61
5/2/2018	4.62		
11/26/2018		4.65	
11/27/2018	4.73		4.72
5/29/2019	4.65	4.54	4.58
10/2/2019	4.57	4.6	4.43
3/31/2020	4.64	4.55	4.6
9/9/2020	4.65	4.58	4.67
5/11/2021			4.29
5/12/2021	4.74	4.4	
10/19/2021	4.67	4.48	4.6
5/31/2022	3.89		3.31
6/1/2022		4.56	

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	4.96	4.74	4.76
4/18/2016			4.75
4/19/2016	4.94	4.86	
6/6/2016		4.88	
6/7/2016	4.96		4.77
8/30/2016	4.92	4.91	4.82
10/18/2016	4.98	4.95	4.82
1/31/2017	4.74	4.71	4.8
3/20/2017	4.9	4.83	
3/21/2017			4.86
5/2/2017	4.98	4.93	4.89
6/6/2017	4.94	4.9	4.86
9/12/2017		4.82	
9/13/2017	4.93		4.89
1/23/2018	4.91	4.85	
1/24/2018			4.86
5/1/2018	4.87	4.8	
5/2/2018			4.87
11/26/2018		4.88	
11/27/2018	4.94		4.92
5/28/2019		4.73	4.8
5/29/2019	4.8		
10/2/2019	4.52	4.67	4.44
3/30/2020			4.83
3/31/2020	4.4	4.51	
9/8/2020		4.75	4.77
9/9/2020	4.76		
5/11/2021	4.53	4.67	
5/12/2021			4.61
10/18/2021	4.55	4.38	
10/19/2021			4.79
5/31/2022	3.54	3.97	4.61

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	6.59	5.12	4.92
4/18/2016	6.21	5.11	5.16
6/6/2016	5.97	5.14	
6/7/2016			5.11
8/30/2016	5.99	5.06	5.14
10/18/2016	5.94	5.01	5.09
1/30/2017		4.74	
1/31/2017	5.92		5.01
3/21/2017	5.74	5.04	5.07
5/2/2017	5.82	5.08	5.13
6/6/2017	5.77		
6/7/2017		5.07	5.05
9/12/2017	5.64	5.03	
9/13/2017			5.06
1/22/2018	5.66	5.06	
1/24/2018			5.02
5/1/2018	5.71	4.89	
5/2/2018			4.99
11/26/2018	5.58		
11/27/2018		5.05	5.06
5/28/2019	5.21	4.83	4.92
10/2/2019	5.4	5.04	4.86
3/30/2020	5.51	4.91	4.92
9/8/2020	5.15	4.39	4.35
5/12/2021	5.46	4.84	4.83
10/18/2021	5.28	5.05	
10/19/2021			4.77
5/31/2022	4.98		
6/1/2022		4.56	4.03

Time Series

Constituent: pH, Field (SU) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	4.56	
4/19/2016	4.62	
6/7/2016	4.64	
8/30/2016	4.58	
10/18/2016	4.58	
1/30/2017	4.44	
3/21/2017	4.57	
5/2/2017	4.64	
6/7/2017	4.58	
9/13/2017	4.54	
1/23/2018	4.53	
5/1/2018	4.46	
11/26/2018	4.5	
5/29/2019	4.45	
10/2/2019	4.49	
3/31/2020	4.45	4.91
9/8/2020		4.12
9/9/2020	4.46	
5/12/2021	4.43	4.93
10/19/2021	4.34	4.8
6/1/2022	4.49	4.74

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.00102	<0.00102	<0.00102
4/19/2016	<0.00102	<0.00102	<0.00102
6/6/2016	<0.00102		
6/7/2016		<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	<0.00102		<0.00102
5/2/2017	<0.00102	<0.00102	<0.00102
6/6/2017	<0.00102		<0.00102
6/7/2017		<0.00102	
1/23/2018	<0.00102	<0.00102	<0.00102
5/1/2018		<0.00102	<0.00102
5/2/2018	<0.00102		
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/29/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/31/2020	<0.00102	<0.00102	<0.00102
9/9/2020	<0.00102	<0.00102	<0.00102
5/11/2021			0.000602 (J)
5/12/2021	<0.00102	0.000778 (J)	
10/19/2021	<0.00102	0.00083 (J)	<0.00102
5/31/2022	<0.00102		0.00063 (J)
6/1/2022		0.00125	

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.00102	<0.00102	0.00572 (J)
4/18/2016			0.0141
4/19/2016	<0.00102	<0.00102	
6/6/2016		<0.00102	
6/7/2016	<0.00102		0.00698 (J)
8/30/2016	<0.00102	<0.00102	0.0042 (J)
10/18/2016	<0.00102	<0.00102	0.00386 (J)
1/31/2017	<0.00102	<0.00102	0.00247 (J)
5/2/2017	<0.00102	<0.00102	0.00284 (J)
6/6/2017	<0.00102	<0.00102	0.003 (J)
1/23/2018	<0.00102	<0.00102	
1/24/2018			0.00201 (J)
5/1/2018	<0.00102	<0.00102	
5/2/2018			<0.00102
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019		<0.00102	<0.00102
5/29/2019	<0.00102		
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020			<0.00102
3/31/2020	<0.00102	<0.00102	
9/8/2020		<0.00102	0.0052 (J)
9/9/2020	<0.00102		
5/11/2021	<0.00102	<0.00102	
5/12/2021			0.0163
10/18/2021	<0.00102	<0.00102	
10/19/2021			0.0029
5/31/2022	<0.00102	<0.00102	0.0217

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	0.0266	<0.00102	<0.00102
4/18/2016	0.0529	<0.00102	<0.00102
6/6/2016	0.0382	<0.00102	
6/7/2016			<0.00102
8/30/2016	0.014	<0.00102	<0.00102
10/18/2016	0.0105	<0.00102	<0.00102
1/30/2017		<0.00102	
1/31/2017	0.0104		<0.00102
5/2/2017	0.00778 (J)	<0.00102	<0.00102
6/6/2017	0.00576 (J)		
6/7/2017		<0.00102	<0.00102
1/22/2018	0.00287 (J)	<0.00102	
1/24/2018			<0.00102
5/1/2018	0.00367 (J)	<0.00102	
5/2/2018			<0.00102
11/26/2018	0.00286 (J)		
11/27/2018		<0.00102	<0.00102
5/28/2019	0.0089 (J)	<0.00102	<0.00102
10/2/2019	0.00472 (J)	<0.00102	<0.00102
3/30/2020	0.00658 (J)	<0.00102	<0.00102
9/8/2020	0.0052 (J)	<0.00102	<0.00102
5/12/2021	0.0123	<0.00102	<0.00102
10/18/2021	0.00672	<0.00102	
10/19/2021			0.00052 (J)
5/31/2022	0.0132		
6/1/2022		0.00058 (J)	<0.00102

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.00102	
4/19/2016	<0.00102	
6/7/2016	<0.00102	
8/30/2016	<0.00102	
10/18/2016	<0.00102	
1/30/2017	<0.00102	
5/2/2017	<0.00102	
6/7/2017	<0.00102	
1/23/2018	<0.00102	
5/1/2018	<0.00102	
11/26/2018	<0.00102	
5/29/2019	<0.00102	
10/2/2019	<0.00102	
3/31/2020	<0.00102	<0.00102
9/8/2020		<0.00102
9/9/2020	<0.00102	
5/12/2021	0.00128	0.00111
10/19/2021	0.00118	0.00114
6/1/2022	0.00204	0.00132

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	8.59	9.29	7.2
4/19/2016	8.27	9.92	7.22
6/6/2016	8.66		
6/7/2016		10	7.92
8/30/2016	9.74	11.1	8.17
10/18/2016	10.2	11.7	7.99
3/20/2017	8.3		6.1
3/21/2017		9	
5/2/2017	6.6	7.9	5
6/6/2017	7.6		5.3
6/7/2017		8.4	
9/13/2017	8.4	8.7	4.9 (J)
5/1/2018		10	4.2 (J)
5/2/2018	5.9		
11/26/2018		8.3	
11/27/2018	22		3.7 (J)
5/29/2019	23.3	11.1	5.94
10/2/2019	17.5	13.2	6.04
3/31/2020	24.3	11.1	6.83
9/9/2020	16.5	9.28	6.08
5/11/2021			7.92
5/12/2021	16.3	11	
10/19/2021	15.5	10.1	7.48
5/31/2022	12.8		8.09
6/1/2022		11.4	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	7.44	7.04	12.5
4/18/2016			28.6
4/19/2016	7.66	6.74	
6/6/2016		7.04	
6/7/2016	8.16		18.7
8/30/2016	8.43	7.57	13.8
10/18/2016	8.47	6.62	12.2
3/20/2017	7.4	7	
3/21/2017			8.6
5/2/2017	6.3	5.6	8
6/6/2017	7.1	6.6	8.6
9/12/2017		7.2	
9/13/2017	7.3		7.6
5/1/2018	6.9	5.9	
5/2/2018			6
11/26/2018		5.1	
11/27/2018	6.5		5.5
5/28/2019		7.1	6.5
5/29/2019	7.81		
10/2/2019	7.62	6.88	6.55
3/30/2020			6.34
3/31/2020	7.98	10.8	
9/8/2020		6.52	15.1
9/9/2020	7.13		
5/11/2021	7.73	6.8	
5/12/2021			38.2
10/18/2021	7.36	6.58	
10/19/2021			12.3
5/31/2022	7.02	7.94	48.7

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	36.5	3.82	3.33
4/18/2016	80.2 (O)	3.48	3.78
6/6/2016	0.498 (J)	3.76	
6/7/2016			4.44
8/30/2016	27.8	3.62	4.29
10/18/2016	22.5	2.58	4.27
3/21/2017	15	3.3 (J)	3.6 (J)
5/2/2017	11	2.5 (J)	2.9 (J)
6/6/2017	10		
6/7/2017		3.1 (J)	2.9 (J)
9/12/2017	7.5	3 (J)	
9/13/2017			3.2 (J)
5/1/2018	8.5	1.6 (J)	
5/2/2018			2.6 (J)
11/26/2018	7.4		
11/27/2018		1.9 (J)	2.8 (J)
5/28/2019	32.7	4.86	4.46
10/2/2019	15.9	4.6	4.96
3/30/2020	21.8	4.29	4.84
9/8/2020	17.7	3.59	4.56
5/12/2021	37.1	3.58	4.7
10/18/2021	24.7	2.54	
10/19/2021			4.2
5/31/2022	38.6		
6/1/2022		3.4	5.11

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	3.16
9/8/2020		3.61
9/9/2020	10.7	
5/12/2021	12.5	4.62
10/19/2021	12.6	4.92
6/1/2022	13	4.75

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	26.7	37.3	30.7
4/19/2016	<25	34	<25
6/6/2016	32.7		
6/7/2016		38.7	35.3
8/30/2016	33.3	34	27.3
10/18/2016	27.3	31.3	<25
1/30/2017		<25	
1/31/2017	32		32.7
5/2/2017	31.3	29.3	30.7
6/6/2017	35.3		34.7
6/7/2017		36	
9/13/2017	36.7	35.3	39.3
5/1/2018		32	42
5/2/2018	34		
11/26/2018		31.3	
11/27/2018	50.7		31.3
5/29/2019	58	43.3	40
10/2/2019	46	36	41.3
3/31/2020	53.3	33.3	40
9/9/2020	42	39.3	40.7
5/11/2021			35.3
5/12/2021	40.7	42.7	
10/19/2021	40	39.3	36
5/31/2022	32		30.7
6/1/2022		40.7	

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	40	<25	38
4/18/2016			62
4/19/2016	32	<25	
6/6/2016		28.7	
6/7/2016	38.7		51.3
8/30/2016	31.3	25.3	38
10/18/2016	26.7	<25	28.7
1/31/2017	30	26	34
5/2/2017	30.7	<25	37.3
6/6/2017	32.7	42.7	36.7
9/12/2017		26.7	
9/13/2017	38		37.3
5/1/2018	35.3	34.7	
5/2/2018			30.7
11/26/2018		32.7	
11/27/2018	36		<25
5/28/2019		31.3	26
5/29/2019	37.3		
10/2/2019	36.7	36	34.7
3/30/2020			32
3/31/2020	39.3	36.7	
9/8/2020		39.3	55.3
9/9/2020	42.7		
5/11/2021	44	46.7	
5/12/2021			85.3
10/18/2021	36	36	
10/19/2021			48.7
5/31/2022	35.3	36.7	104

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	128	<25	30
4/18/2016	166	<25	27.3
6/6/2016	131	32.7	
6/7/2016			32
8/30/2016	86.7	25.3	<25
10/18/2016	67.3	28	28
1/30/2017		45.3	
1/31/2017	60.7		26
5/2/2017	50	26.7	25.3
6/6/2017	47.3		
6/7/2017		28	<25
9/12/2017	42.7	35.3	
9/13/2017			31.3
5/1/2018	44	30.7	
5/2/2018			30.7
11/26/2018	38		
11/27/2018		30.7	35.3
5/28/2019	77.3	33.3	28.7
10/2/2019	50.7	30.7	37.3
3/30/2020	58	39.3	30
9/8/2020	59.3	42	38
5/12/2021	98.7	52.7	40
10/18/2021	77.3	42.7	
10/19/2021			33.3
5/31/2022	85.3		
6/1/2022		41.3	30.7

Time Series

Constituent: TDS (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	25.3	
4/19/2016	28	
6/7/2016	34.7	
8/30/2016	26.7	
10/18/2016	32	
1/30/2017	32.7	
5/2/2017	30.7	
6/7/2017	<25	
9/13/2017	37.3	
5/1/2018	39.3	
11/26/2018	48	
5/29/2019	60	
10/2/2019	46.7	
3/31/2020	37.3	<25
9/8/2020		29.3
9/9/2020	50.7	
5/12/2021	50.7	40
10/19/2021	48	37.3
6/1/2022	39.3	35.3

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)	BY-GSA-MW-10	BY-UP-MW-2 (bg)
2/23/2016	<0.0002	<0.0002	<0.0002
4/19/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002		
6/7/2016		<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		<0.0002
6/7/2017		<0.0002	
1/23/2018	<0.0002	<0.0002	<0.0002
5/1/2018		<0.0002	<0.0002
5/2/2018	<0.0002		
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/29/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/31/2020	<0.0002	<0.0002	<0.0002
9/9/2020	<0.0002	<0.0002	<0.0002
5/11/2021			<0.0002
5/12/2021	<0.0002	<0.0002	
10/19/2021	<0.0002	<0.0002	<0.0002
5/31/2022	<0.0002		<0.0002
6/1/2022		<0.0002	

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)	BY-GSA-MW-5
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016			<0.0002
4/19/2016	<0.0002	<0.0002	
6/6/2016		<0.0002	
6/7/2016	<0.0002		<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/31/2017	<0.0002	<0.0002	<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002	<0.0002	<0.0002
1/23/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018		<0.0002	
11/27/2018	<0.0002		<0.0002
5/28/2019		<0.0002	<0.0002
5/29/2019	<0.0002		
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020			<0.0002
3/31/2020	<0.0002	<0.0002	
9/8/2020		<0.0002	<0.0002
9/9/2020	<0.0002		
5/11/2021	<0.0002	<0.0002	
5/12/2021			<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			<0.0002
5/31/2022	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8
2/23/2016	<0.0002	<0.0002	<0.0002
4/18/2016	<0.0002	<0.0002	<0.0002
6/6/2016	<0.0002	<0.0002	
6/7/2016			<0.0002
8/30/2016	<0.0002	<0.0002	<0.0002
10/18/2016	<0.0002	<0.0002	<0.0002
1/30/2017		<0.0002	
1/31/2017	<0.0002		<0.0002
5/2/2017	<0.0002	<0.0002	<0.0002
6/6/2017	<0.0002		
6/7/2017		<0.0002	<0.0002
1/22/2018	<0.0002	<0.0002	
1/24/2018			<0.0002
5/1/2018	<0.0002	<0.0002	
5/2/2018			<0.0002
11/26/2018	<0.0002		
11/27/2018		<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002	<0.0002
10/18/2021	<0.0002	<0.0002	
10/19/2021			<0.0002
5/31/2022	<0.0002		
6/1/2022		<0.0002	<0.0002

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/26/2022 10:22 PM

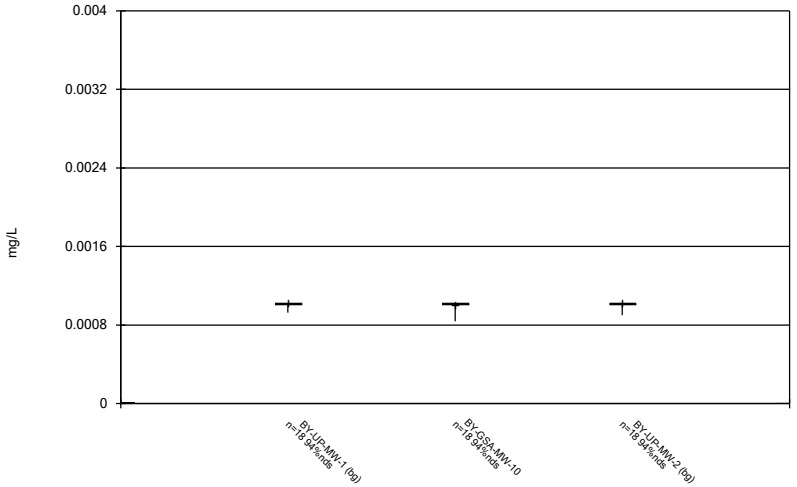
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-PZ-11
2/23/2016	<0.0002	
4/19/2016	<0.0002	
6/7/2016	<0.0002	
8/30/2016	<0.0002	
10/18/2016	<0.0002	
1/30/2017	<0.0002	
5/2/2017	<0.0002	
6/7/2017	<0.0002	
1/23/2018	<0.0002	
5/1/2018	<0.0002	
11/26/2018	<0.0002	
5/29/2019	<0.0002	
10/2/2019	<0.0002	
3/31/2020	<0.0002	<0.0002
9/8/2020		<0.0002
9/9/2020	<0.0002	
5/12/2021	<0.0002	<0.0002
10/19/2021	<0.0002	<0.0002
6/1/2022	<0.0002	<0.0002

FIGURE B.

Sanitas™ v.9.6.35 . UG

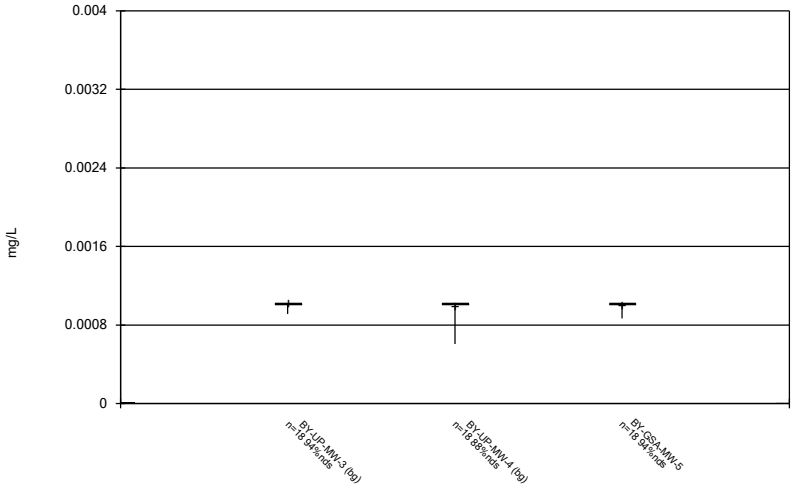
Box & Whiskers Plot



Constituent: Antimony Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

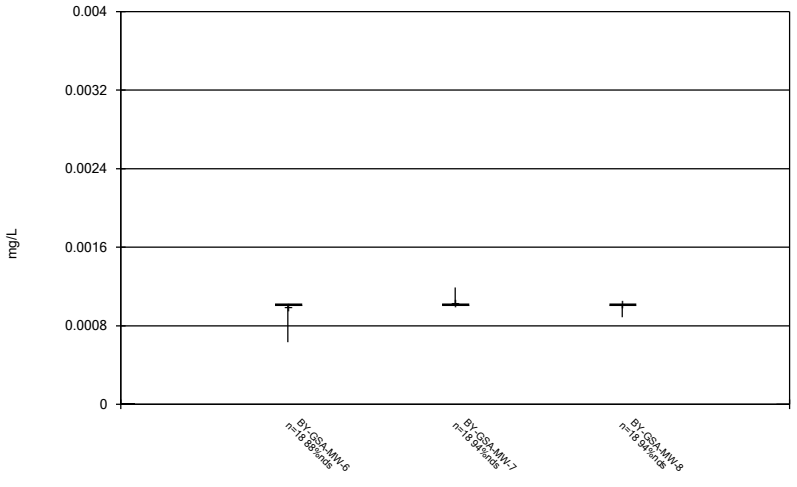
Box & Whiskers Plot



Constituent: Antimony Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

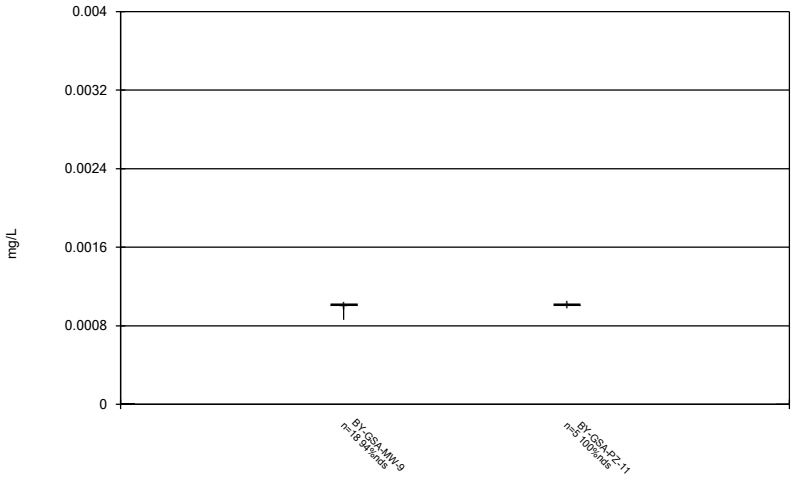
Box & Whiskers Plot



Constituent: Antimony Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

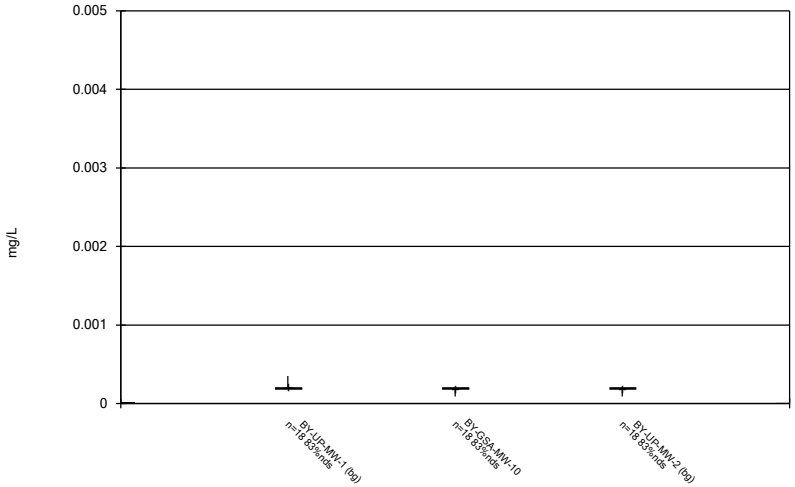
Box & Whiskers Plot



Constituent: Antimony Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

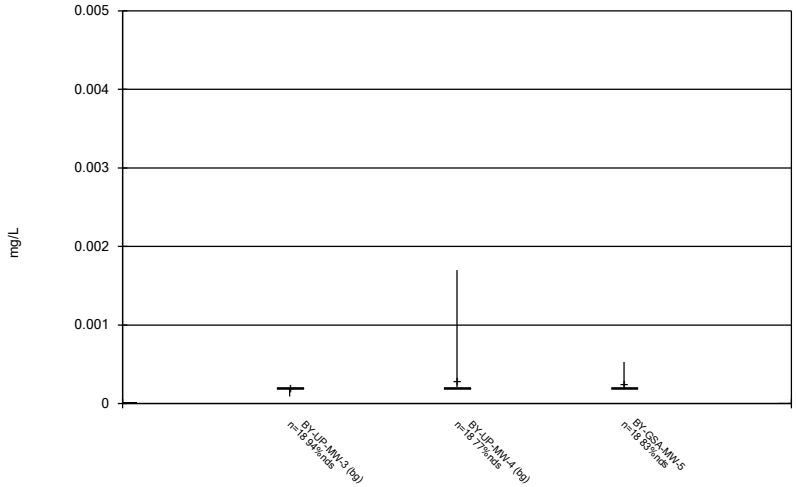


Constituent: Arsenic Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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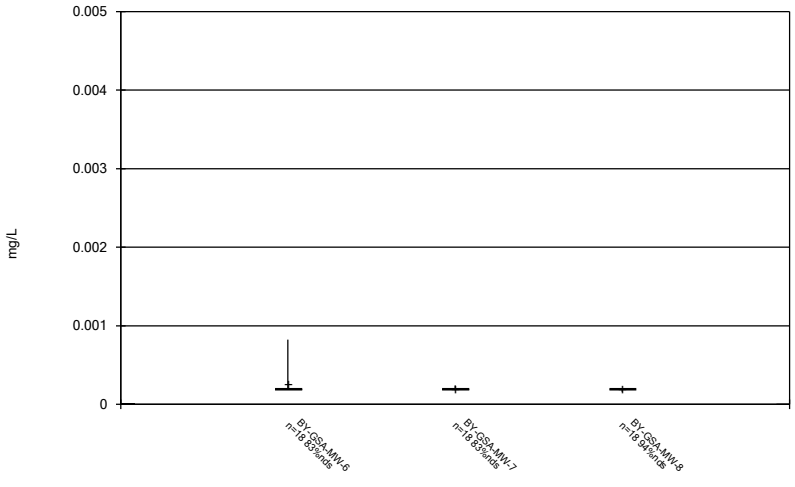
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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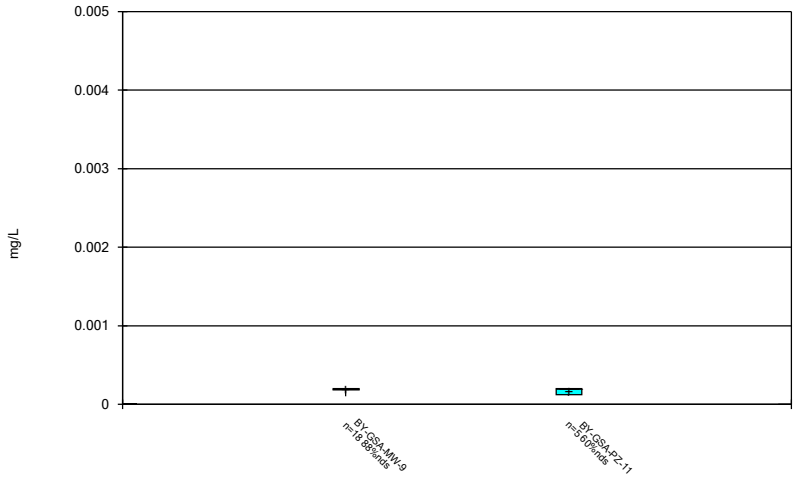
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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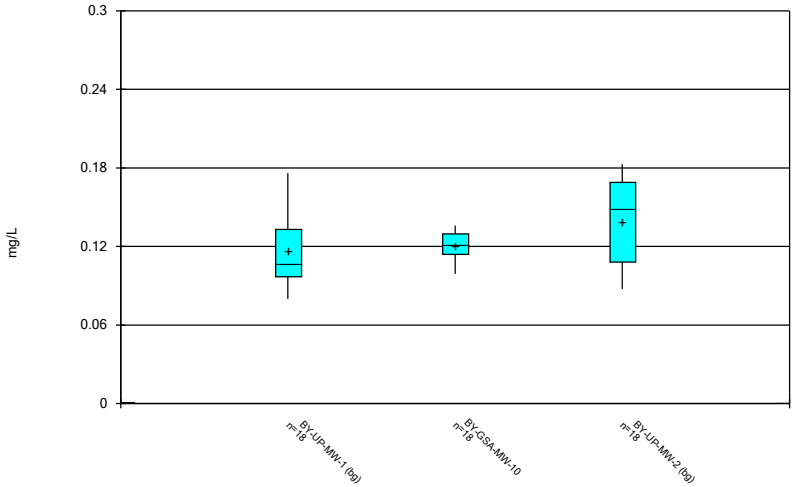
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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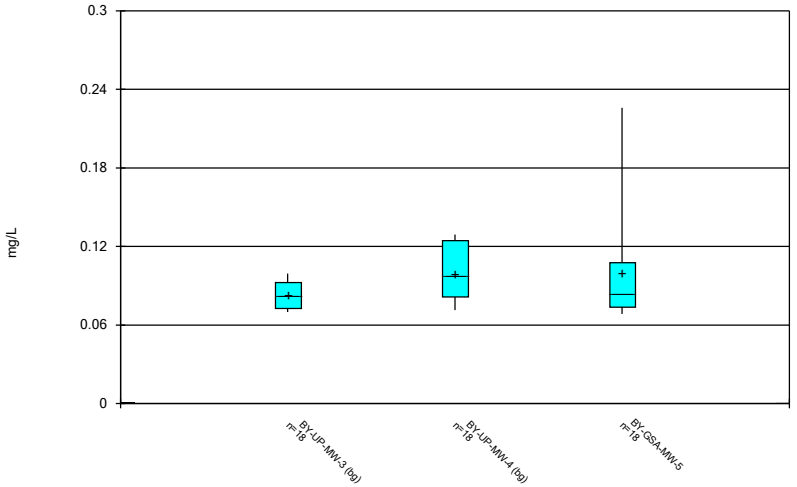
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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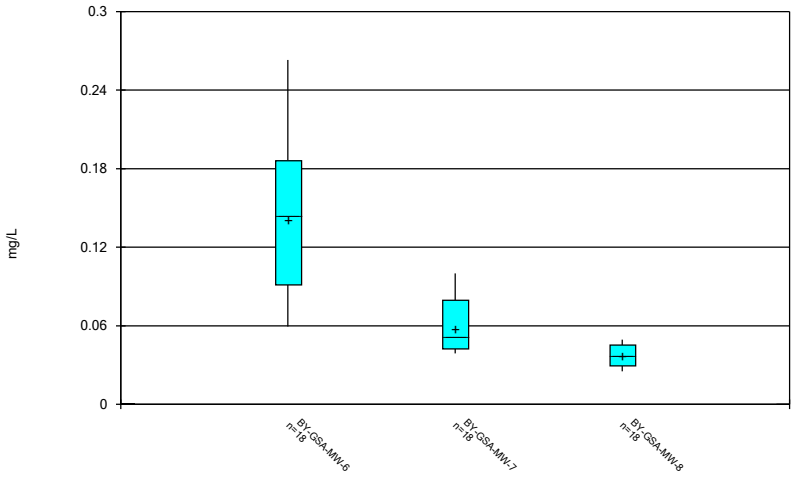
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

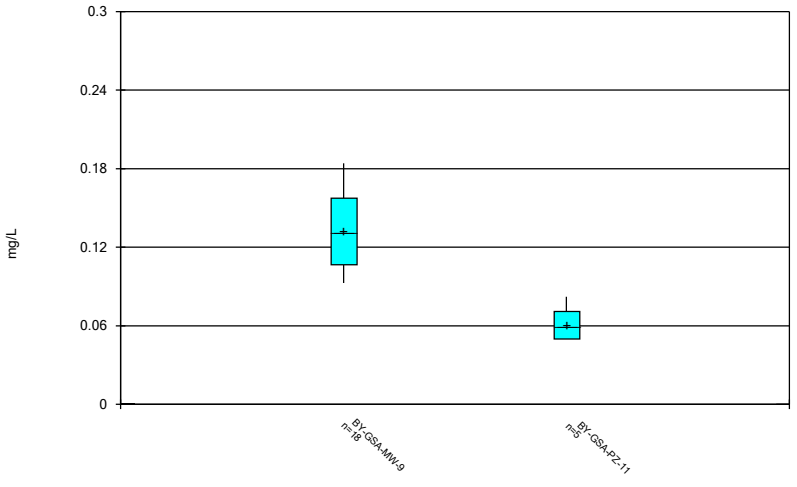


Constituent: Barium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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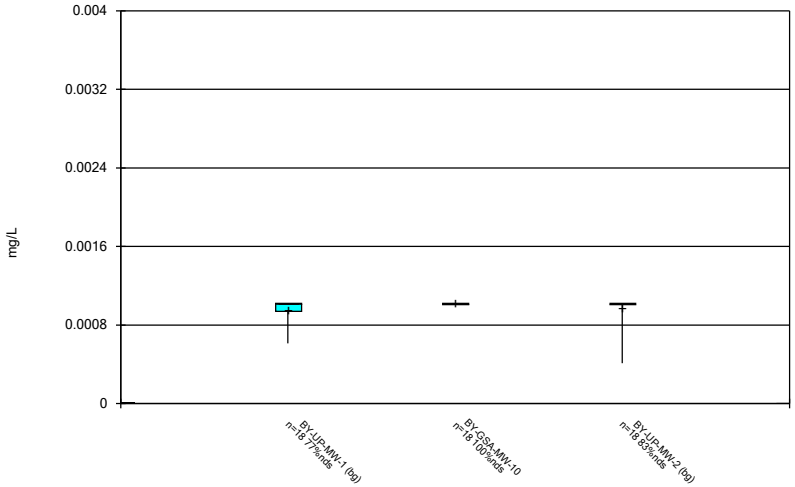
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

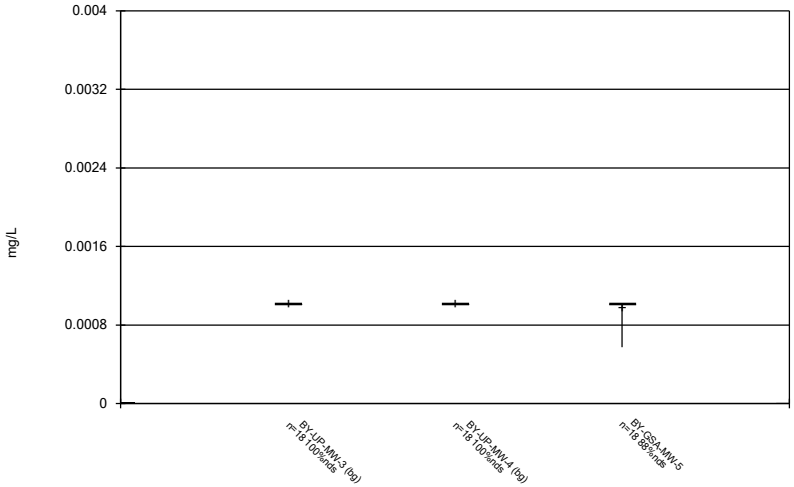


Constituent: Beryllium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

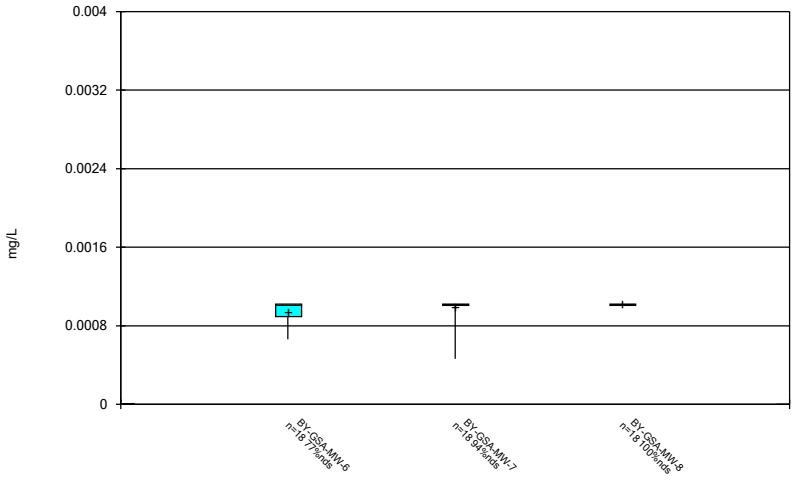


Constituent: Beryllium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

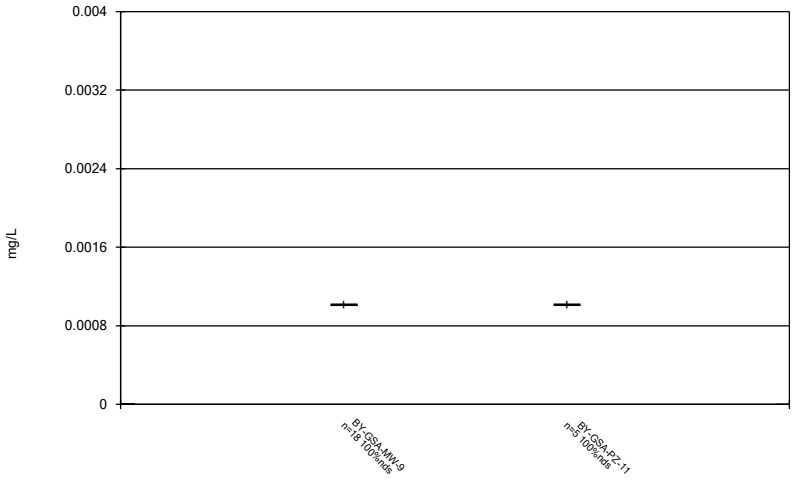


Constituent: Beryllium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

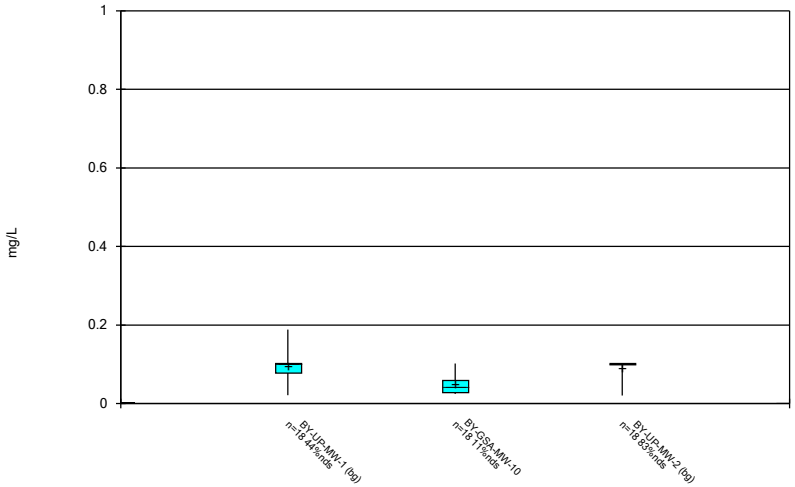


Constituent: Beryllium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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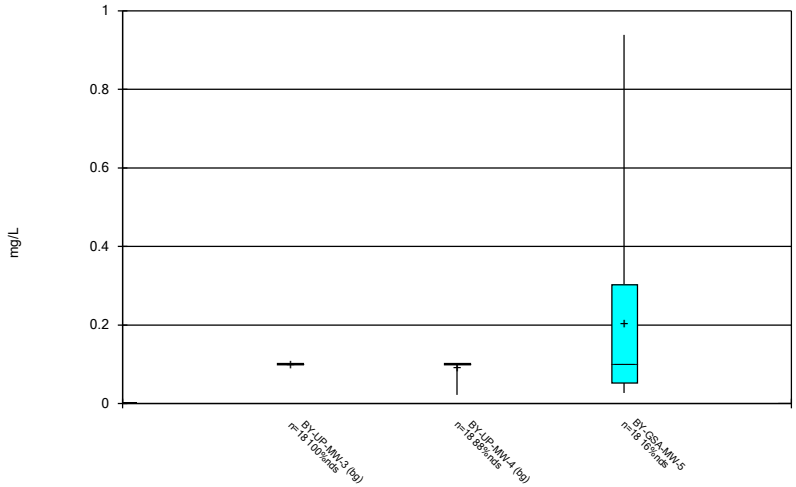
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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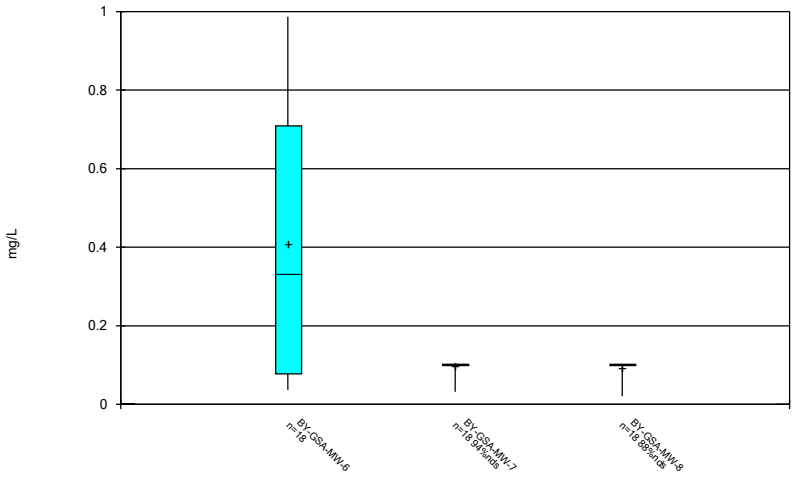
Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

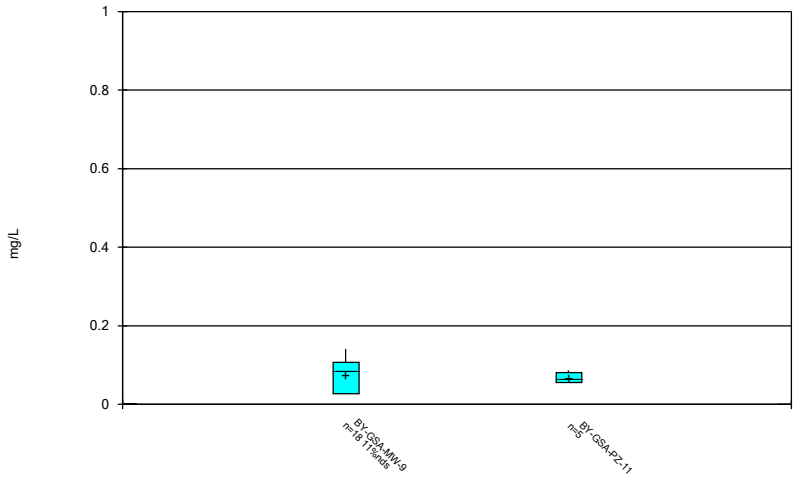


Constituent: Boron Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

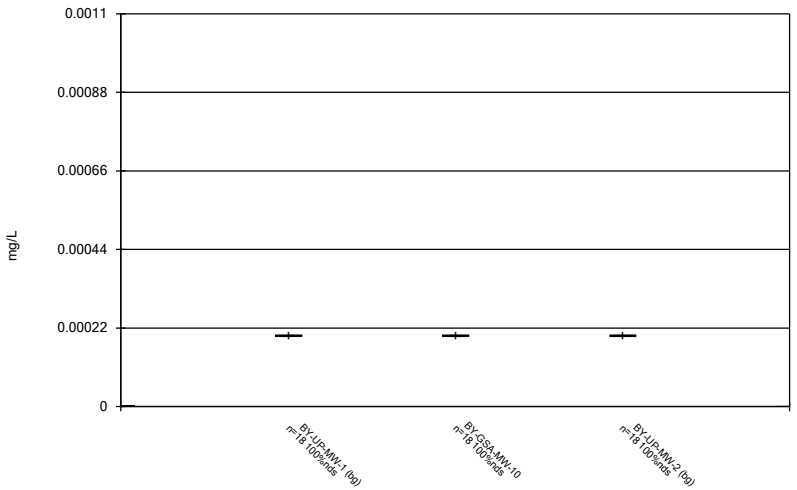


Constituent: Boron Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

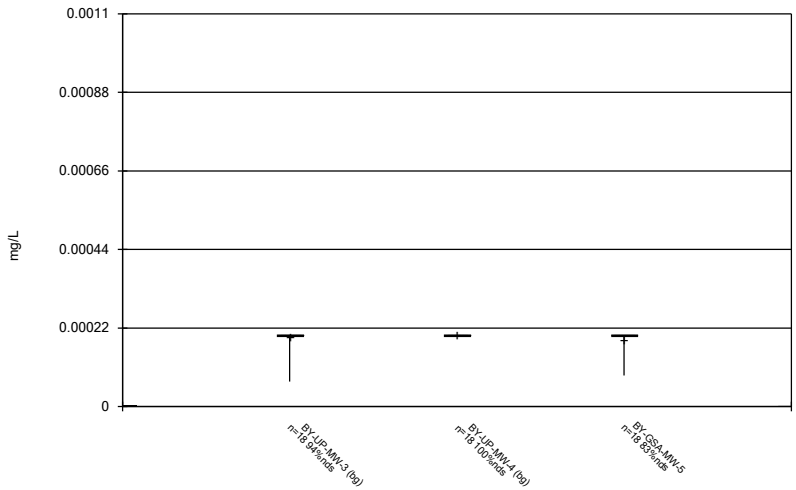


Constituent: Cadmium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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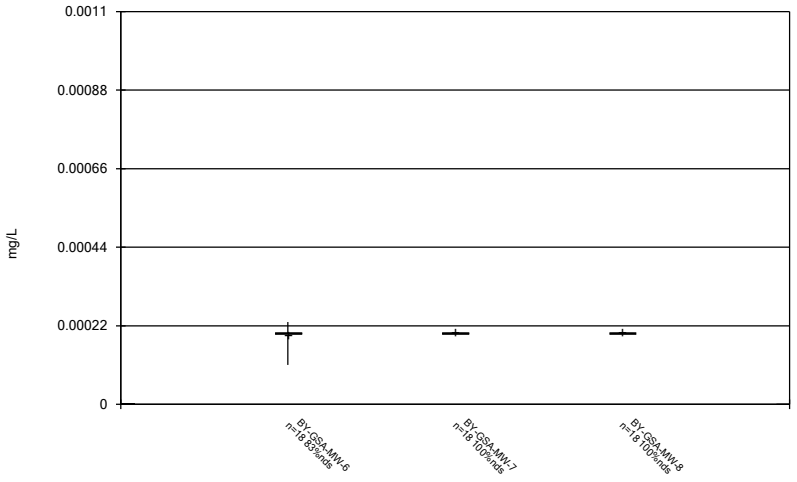
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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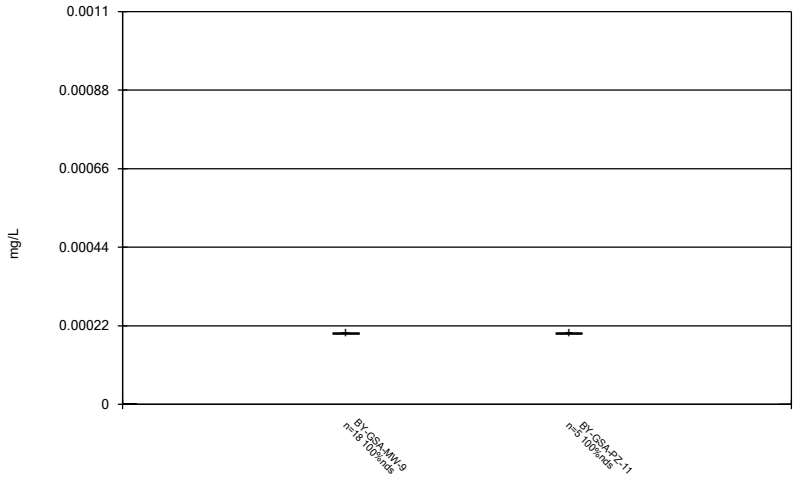
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

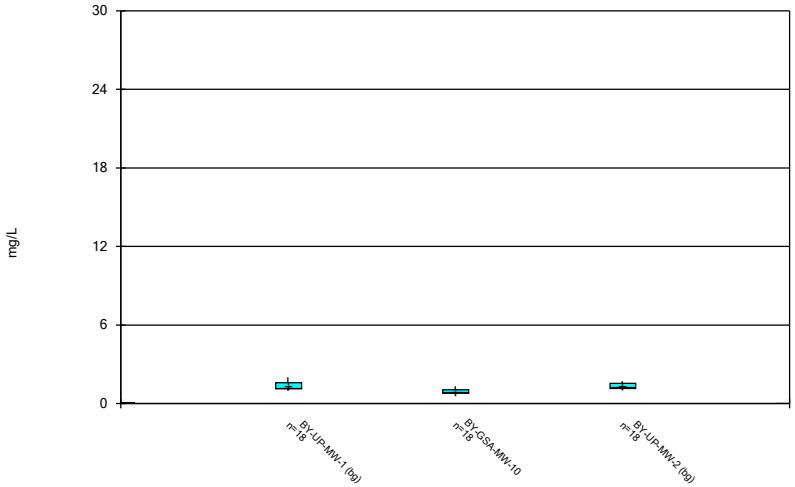


Constituent: Cadmium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

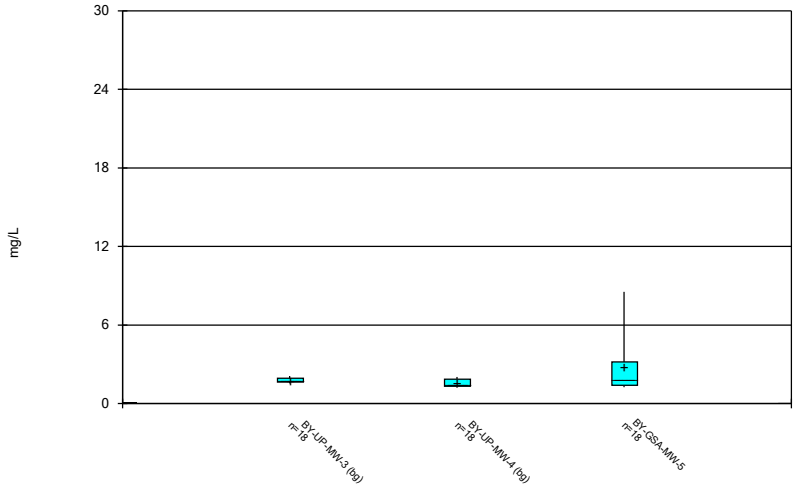
Box & Whiskers Plot



Constituent: Calcium, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

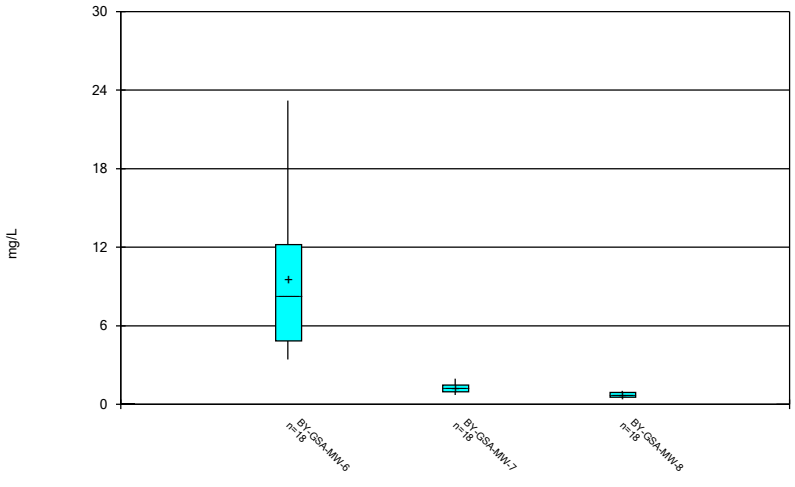
Box & Whiskers Plot



Constituent: Calcium, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

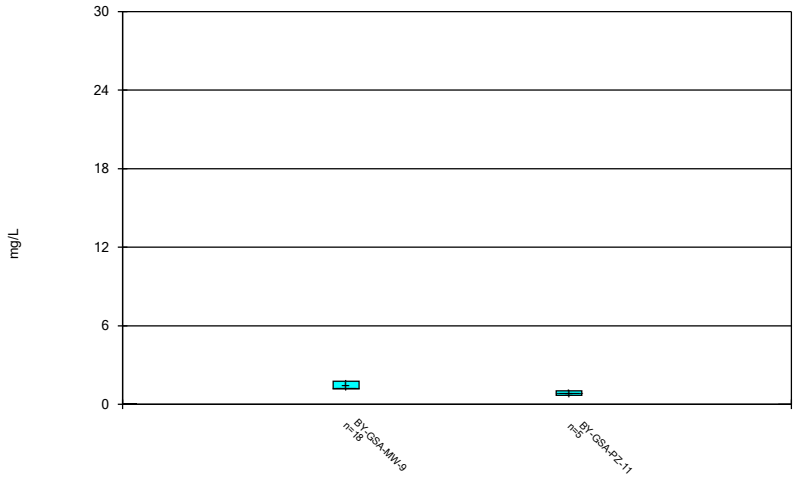
Box & Whiskers Plot



Constituent: Calcium, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

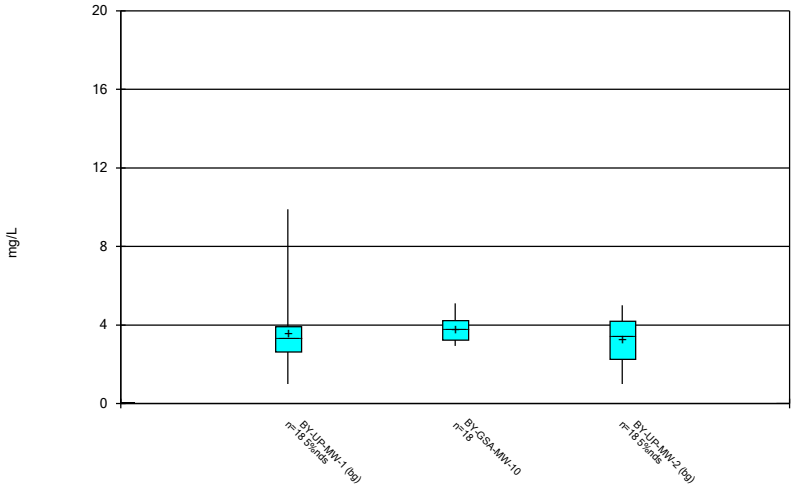
Box & Whiskers Plot



Constituent: Calcium, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

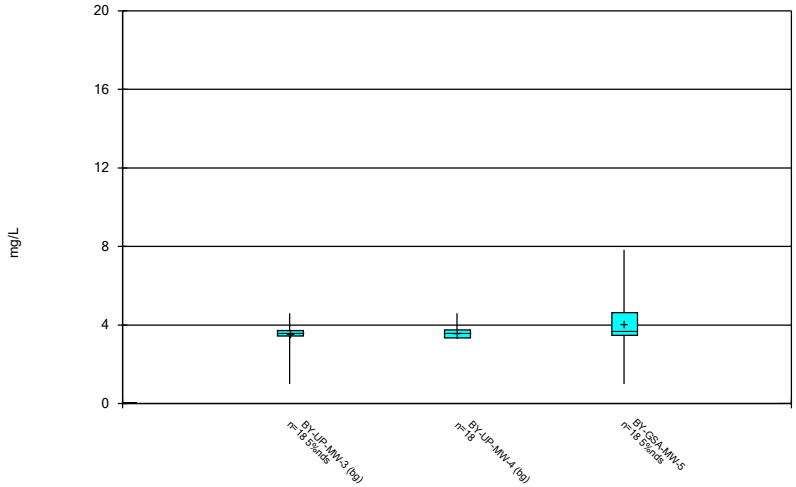
Box & Whiskers Plot



Constituent: Chloride, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

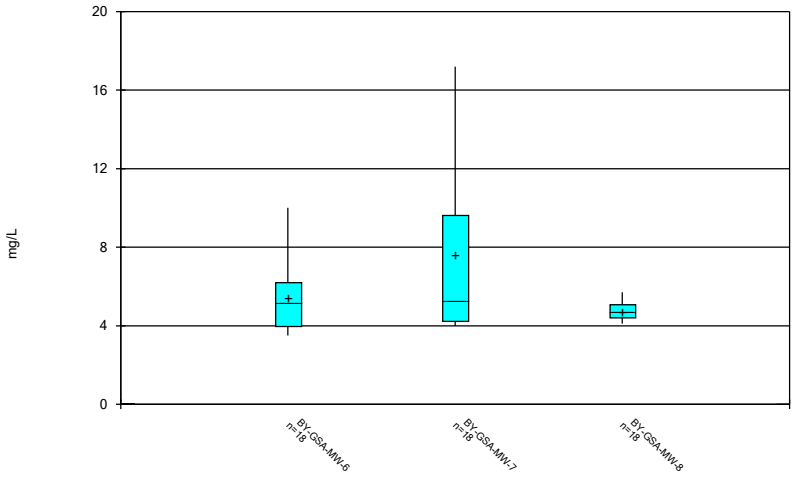
Box & Whiskers Plot



Constituent: Chloride, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

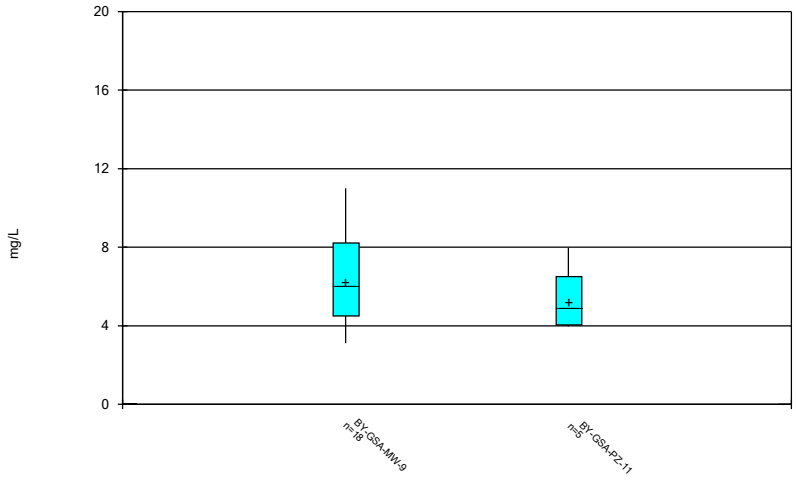
Box & Whiskers Plot



Constituent: Chloride, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

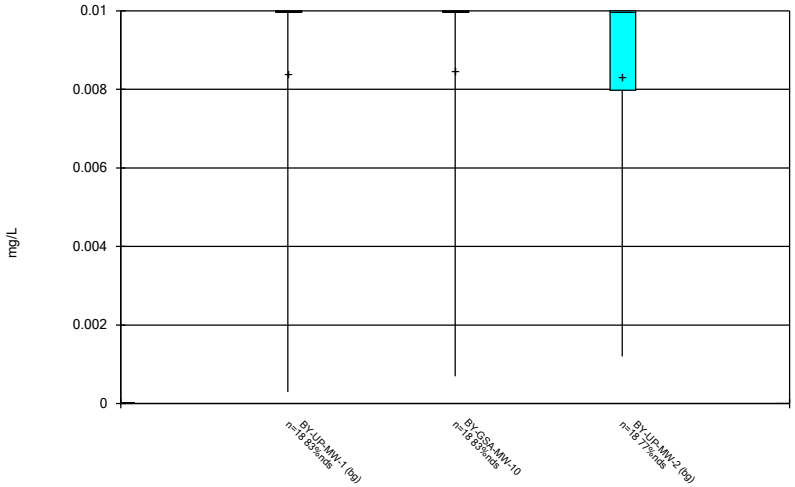
Box & Whiskers Plot



Constituent: Chloride, total Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

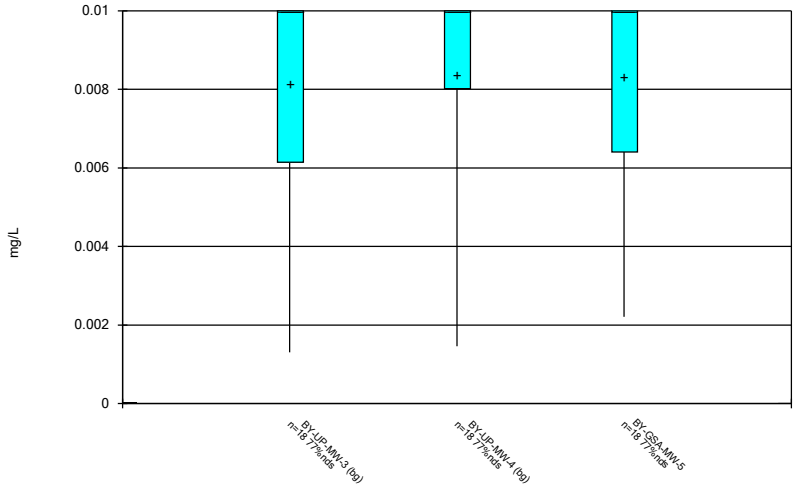


Constituent: Chromium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

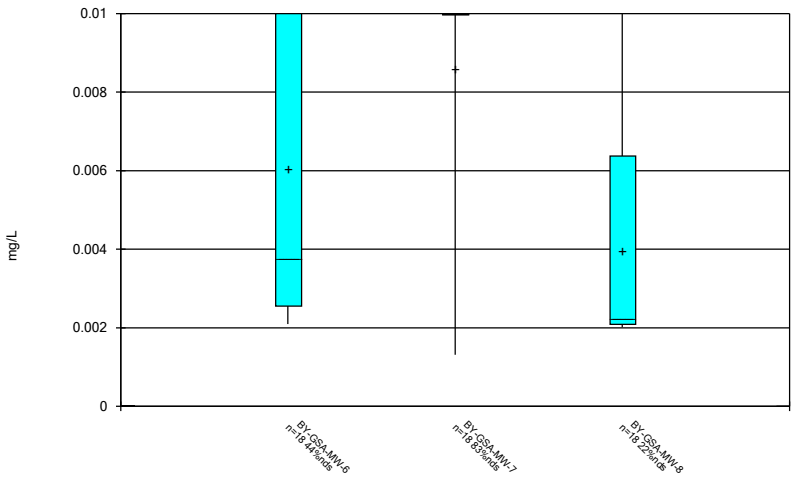


Constituent: Chromium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

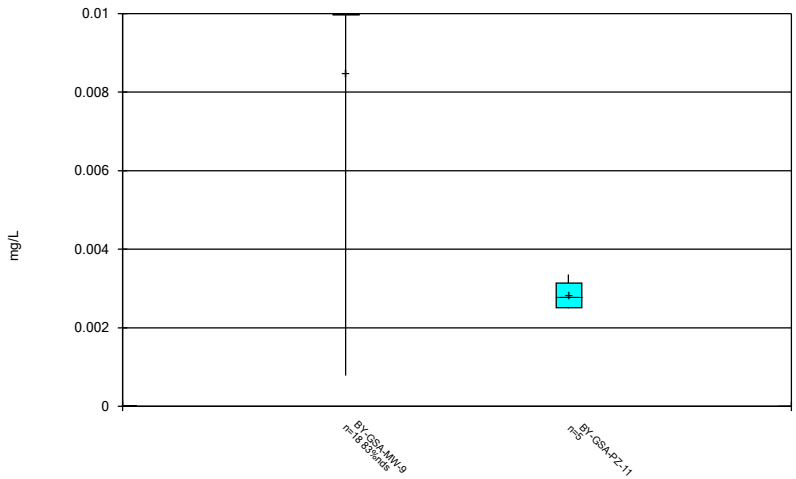


Constituent: Chromium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

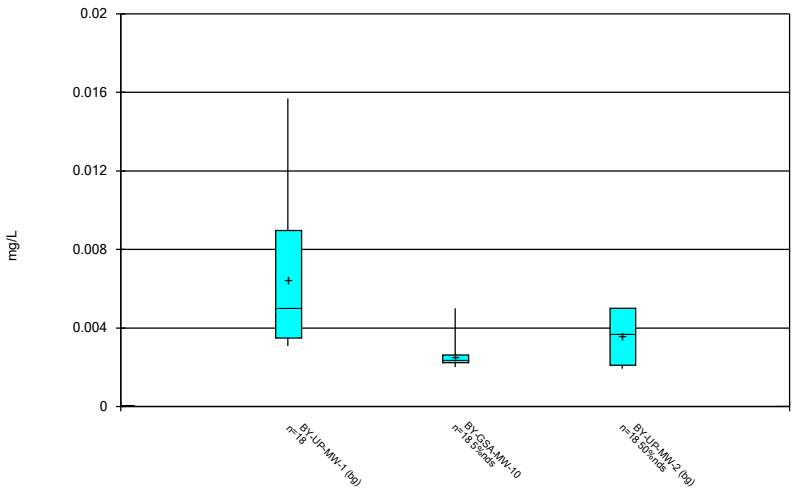


Constituent: Chromium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

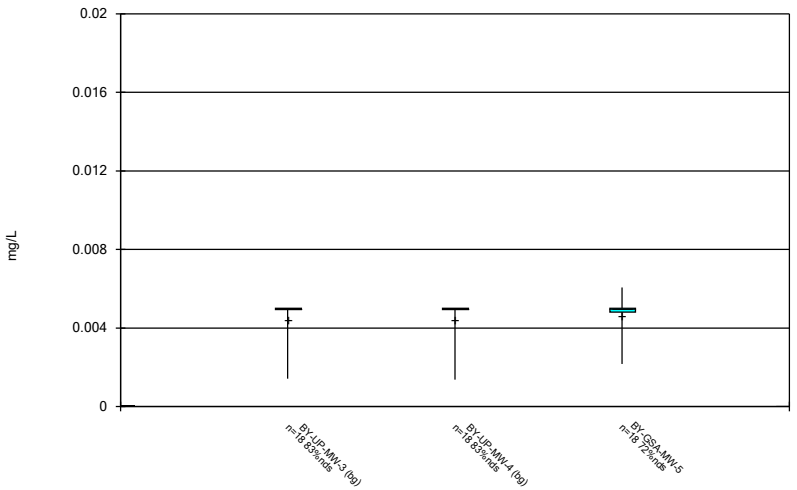


Constituent: Cobalt Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

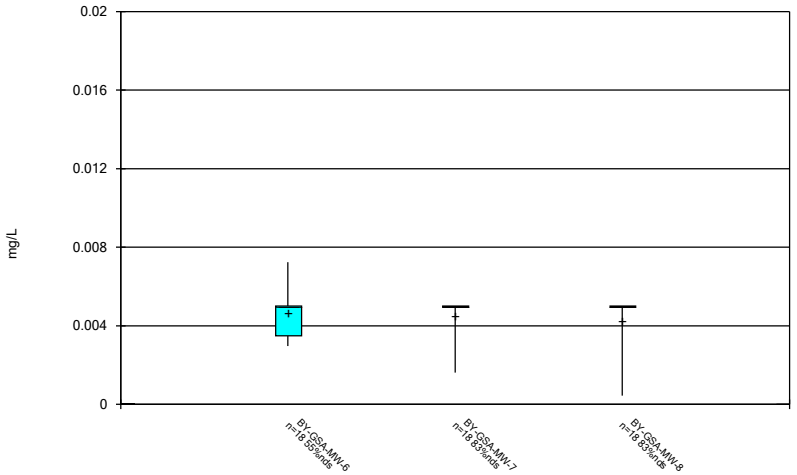


Constituent: Cobalt Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

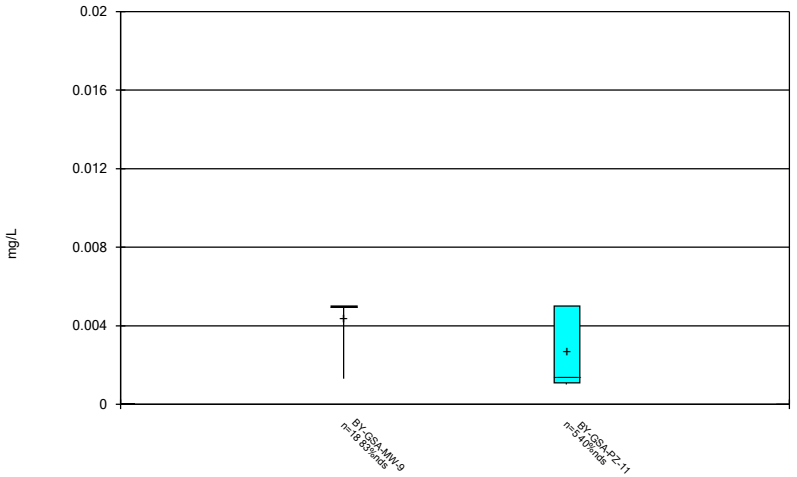


Constituent: Cobalt Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

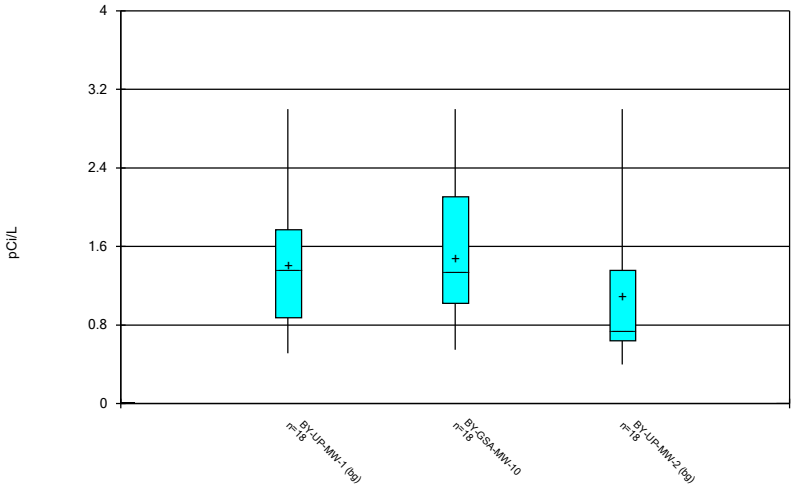


Constituent: Cobalt Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

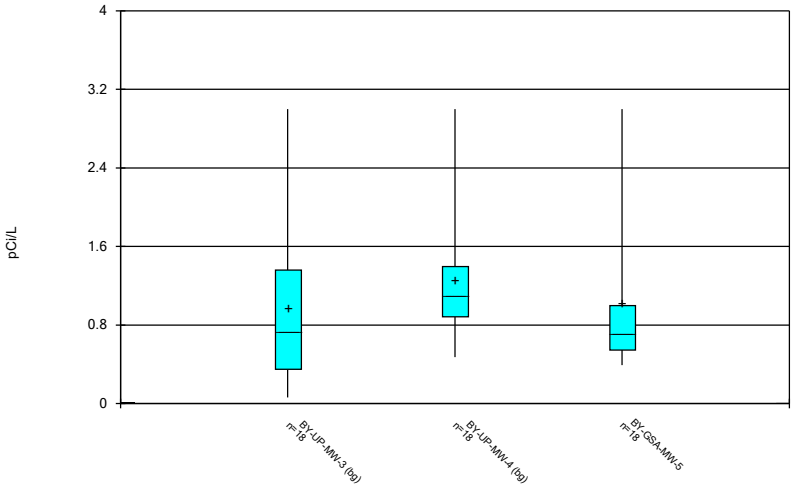
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

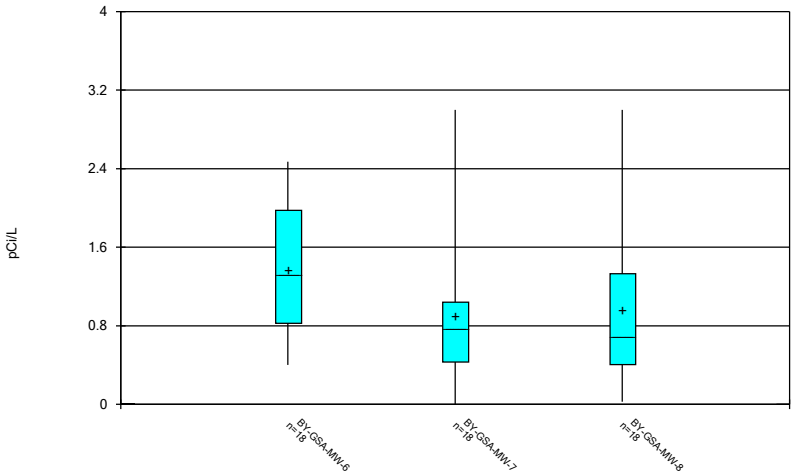
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

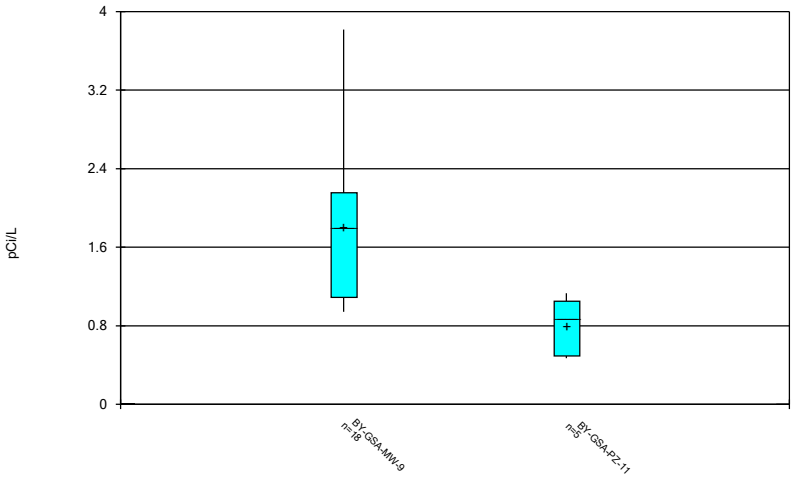
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

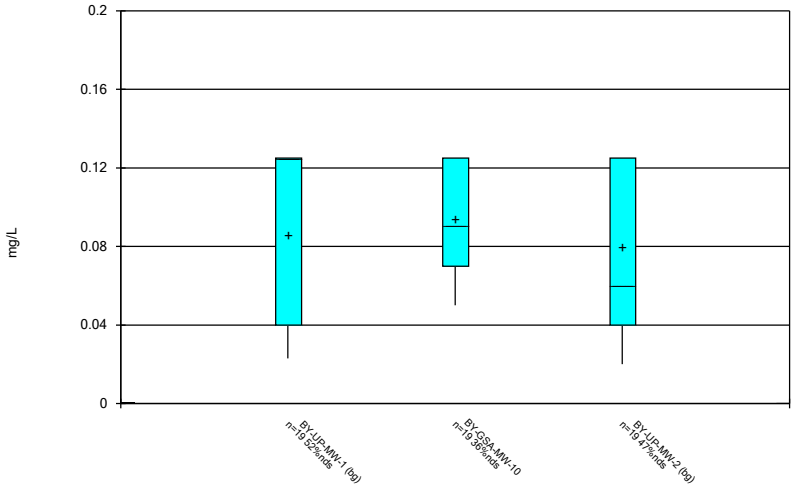
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:23 PM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

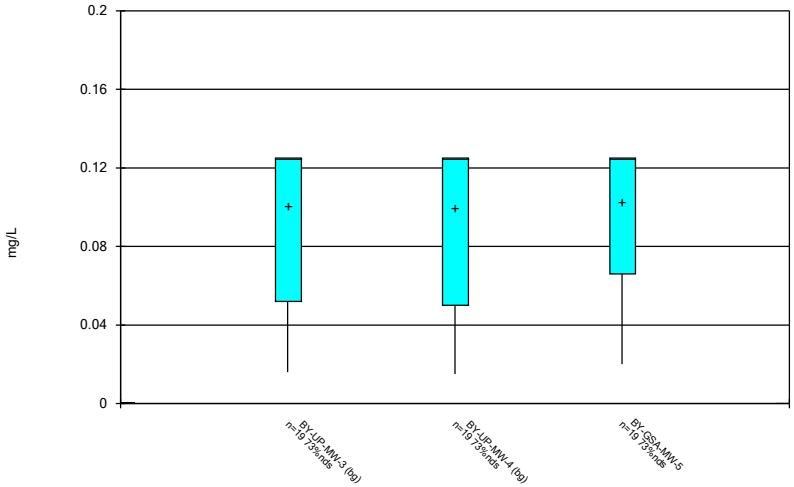


Constituent: Fluoride Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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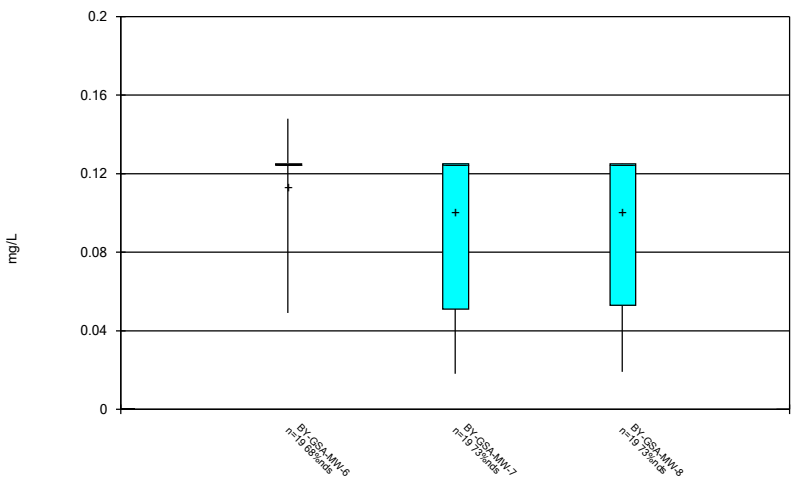
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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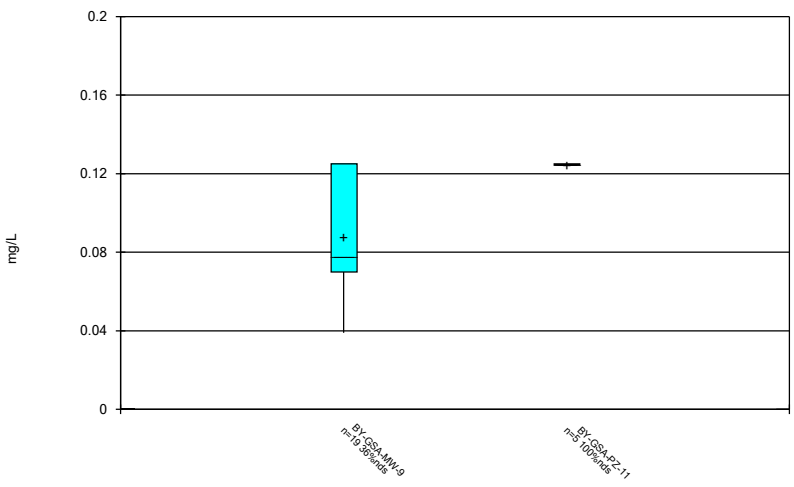
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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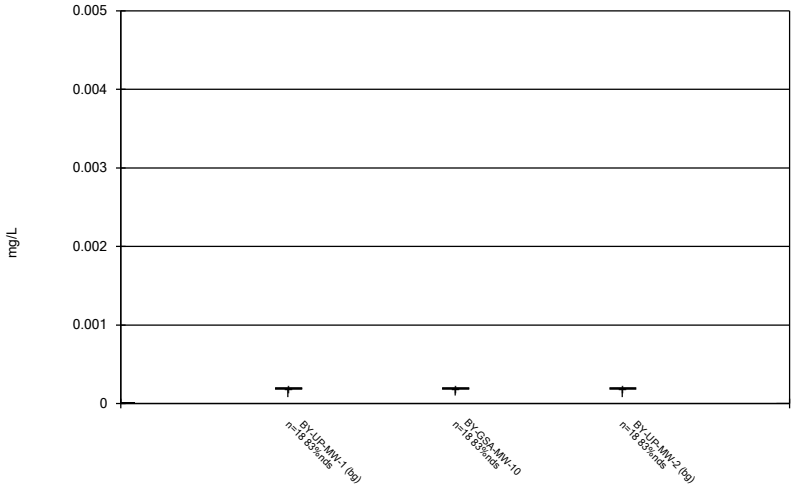
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

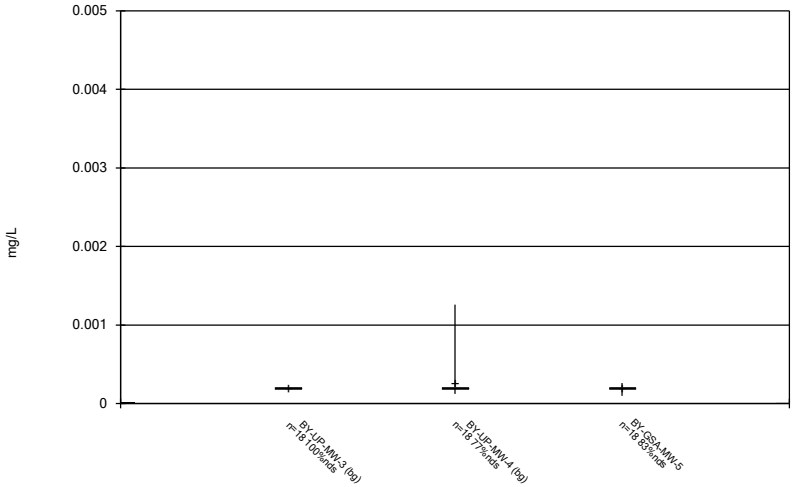


Constituent: Lead Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

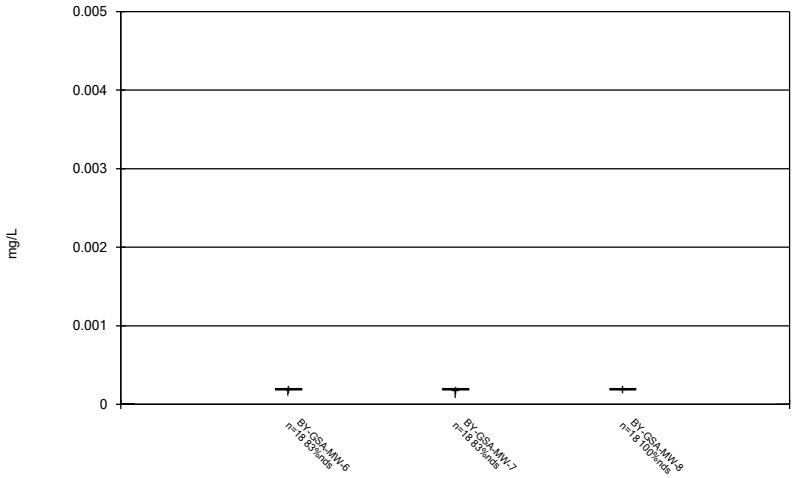


Constituent: Lead Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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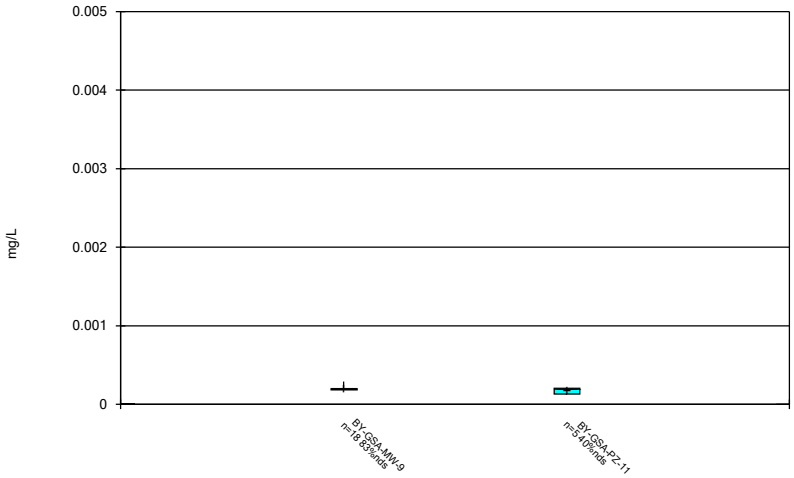
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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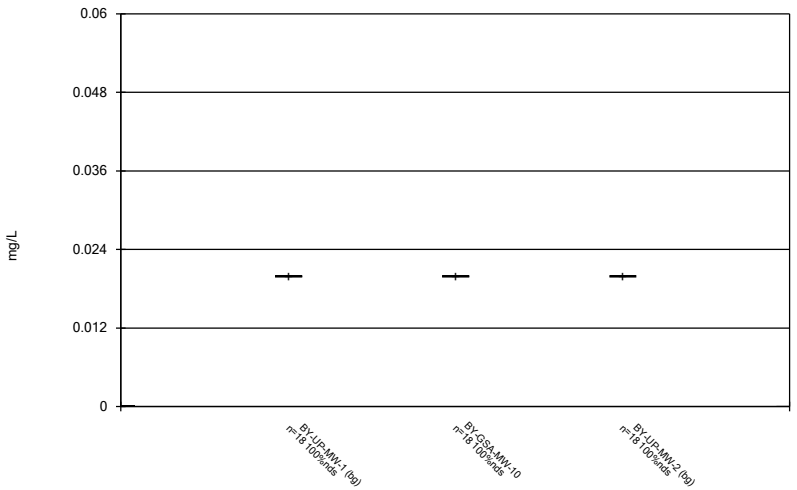
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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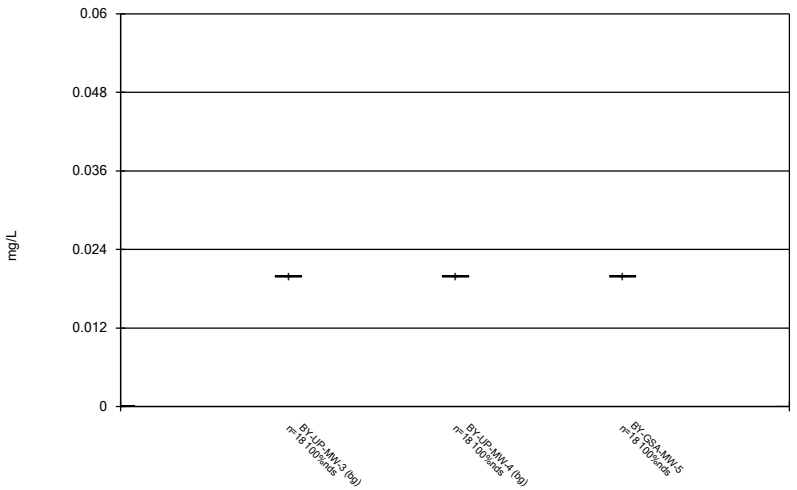
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

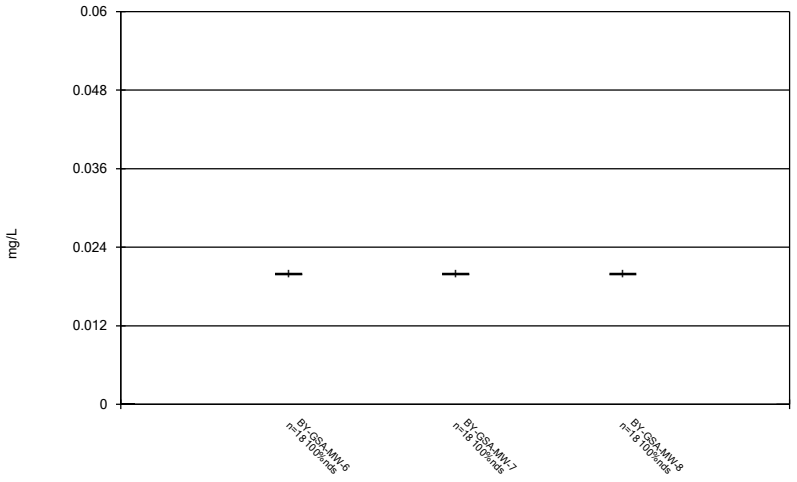


Constituent: Lithium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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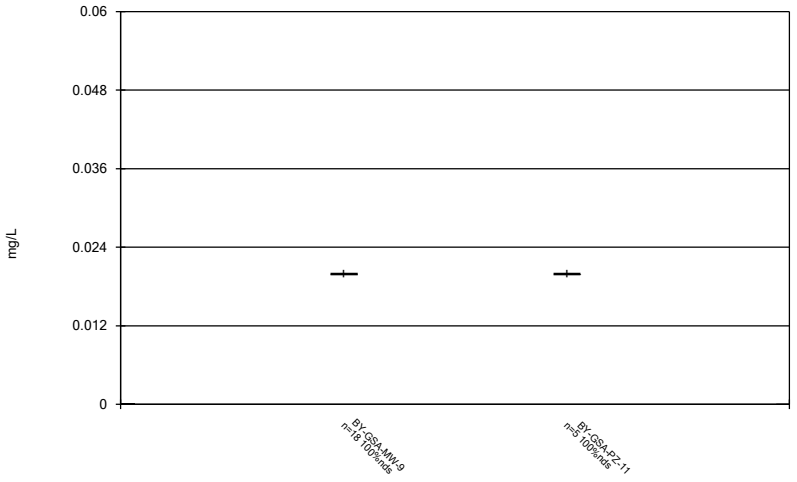
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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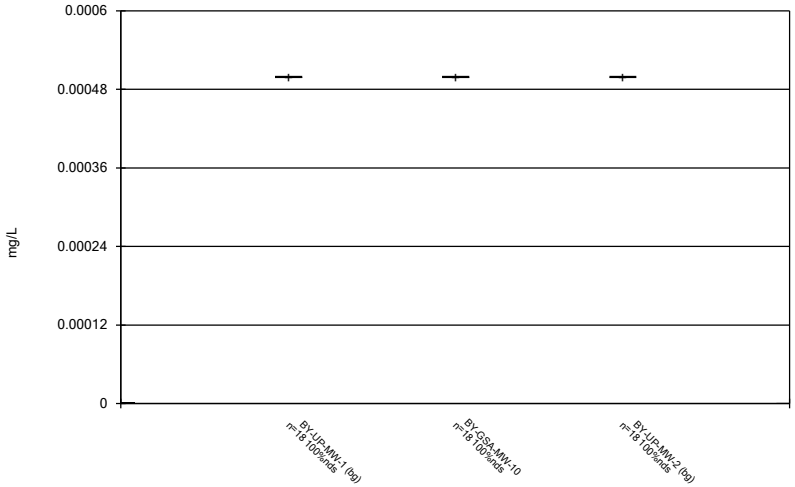
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

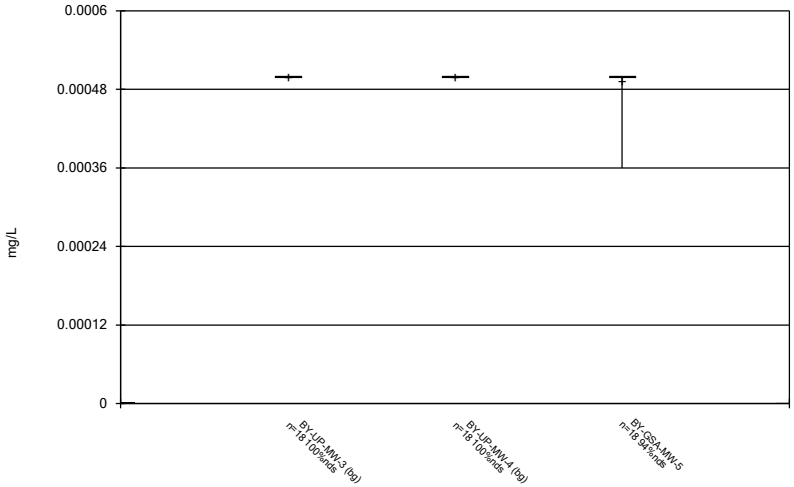


Constituent: Mercury Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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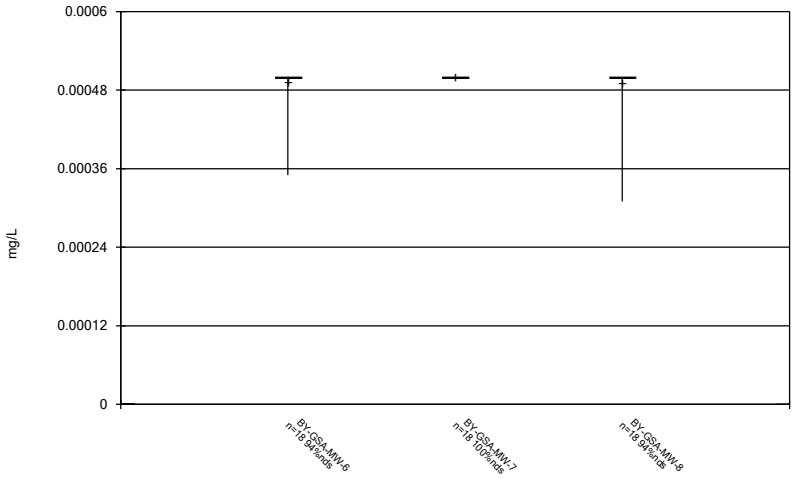
Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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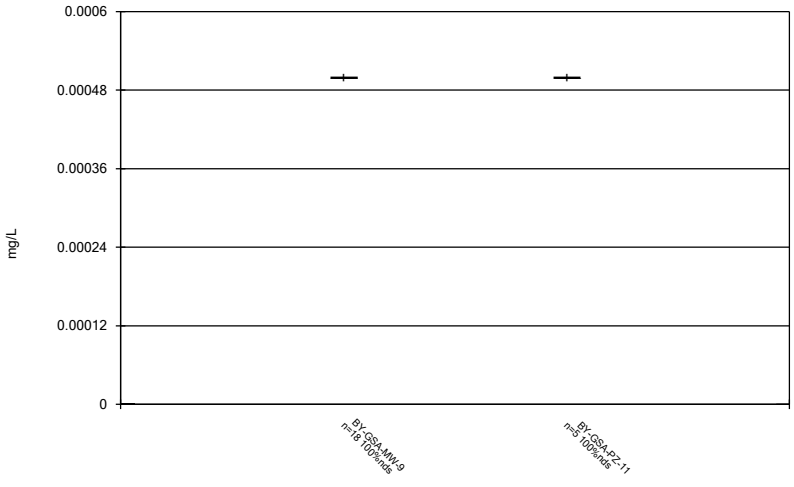
Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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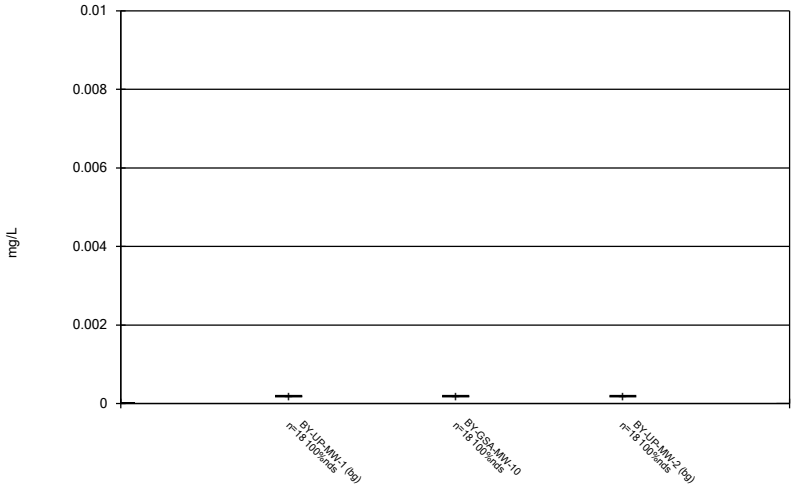
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

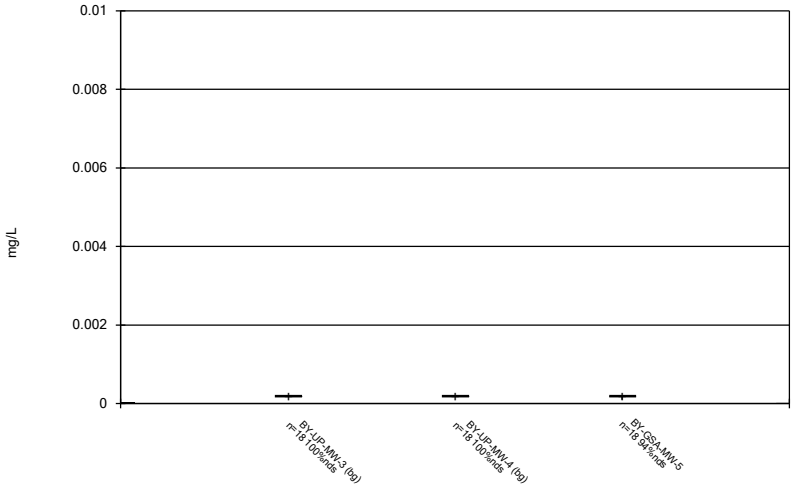


Constituent: Molybdenum Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

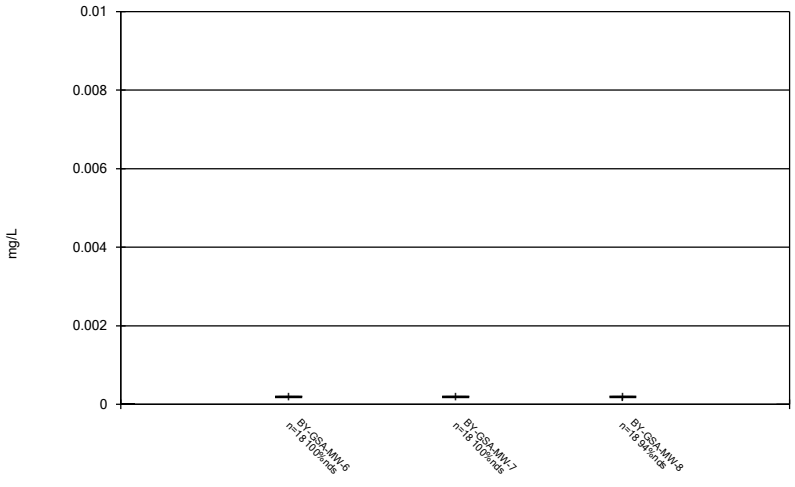


Constituent: Molybdenum Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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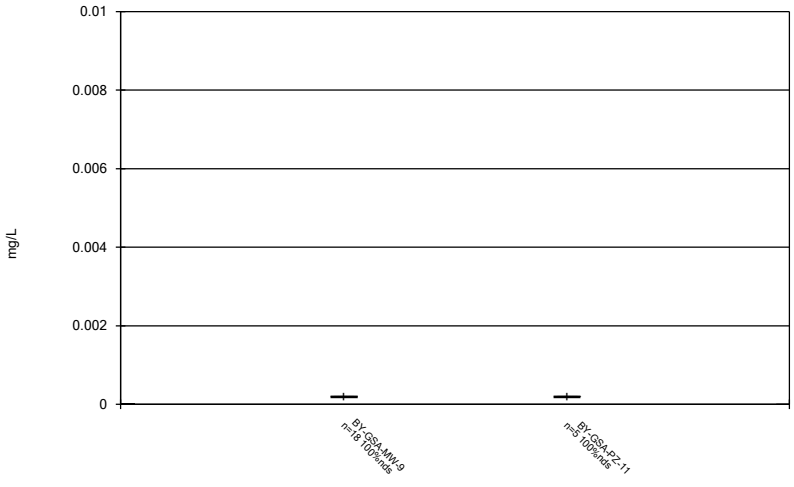
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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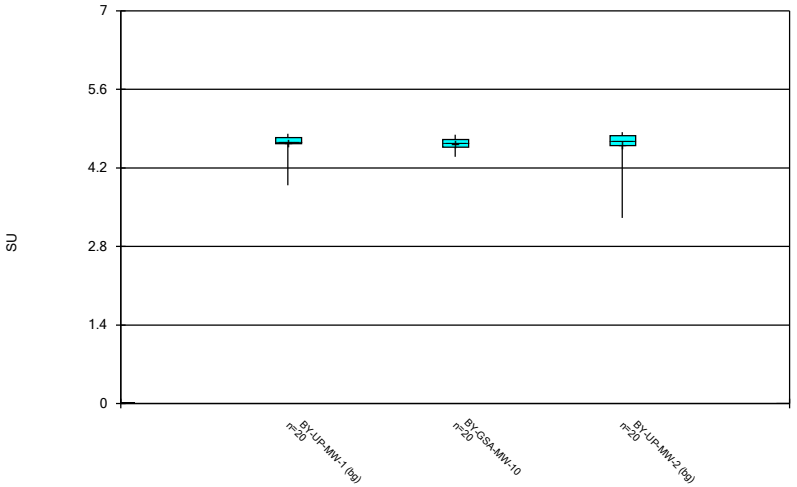
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

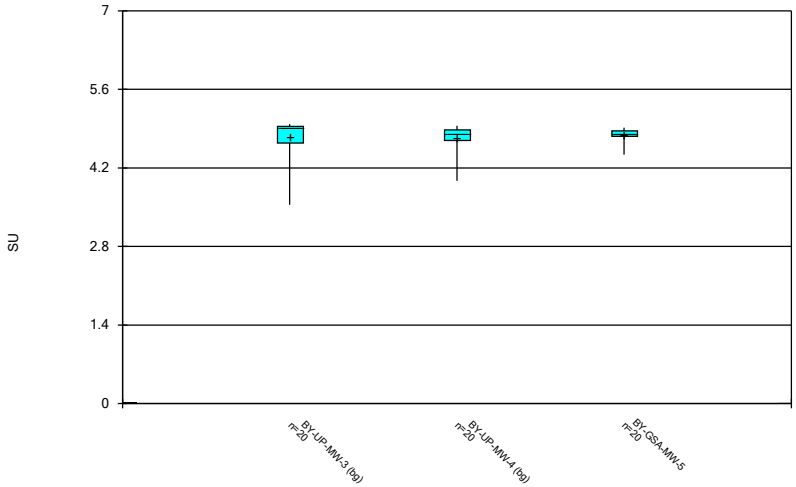


Constituent: pH, Field Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

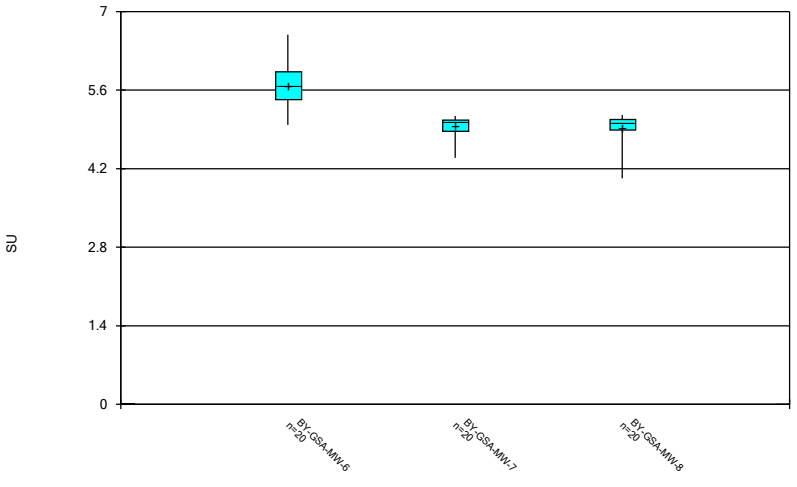


Constituent: pH, Field Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



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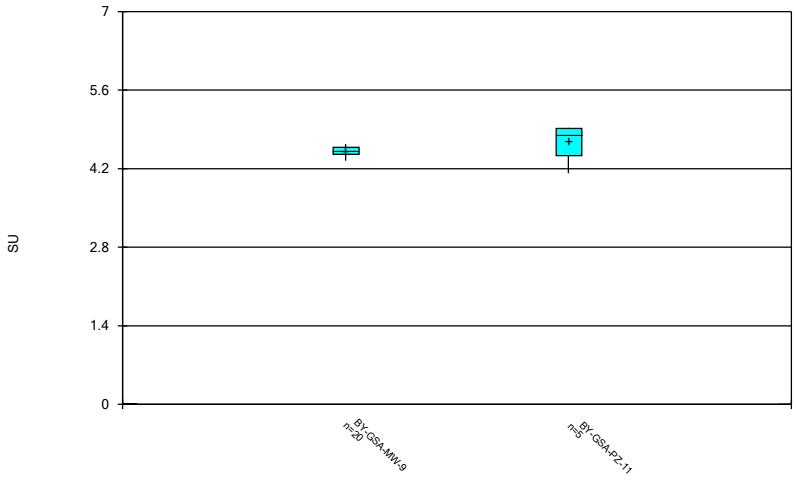
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

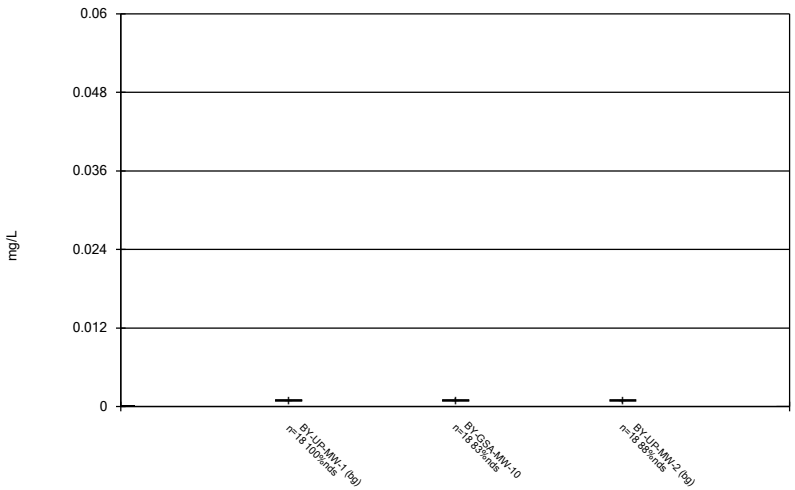


Constituent: pH, Field Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

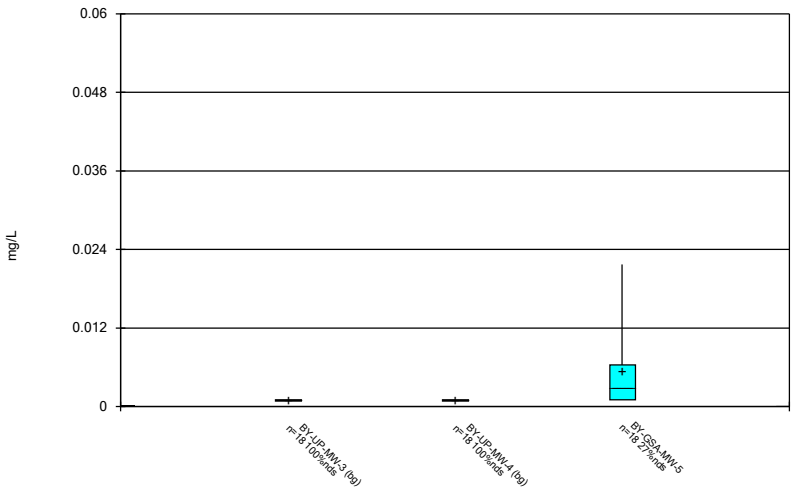


Constituent: Selenium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

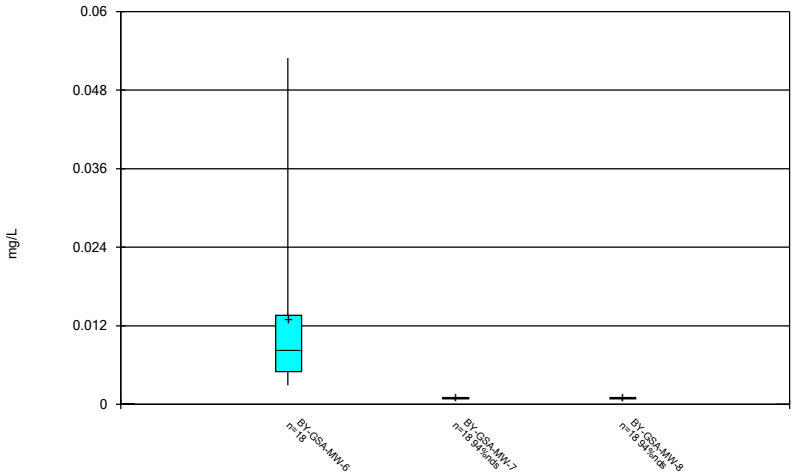


Constituent: Selenium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

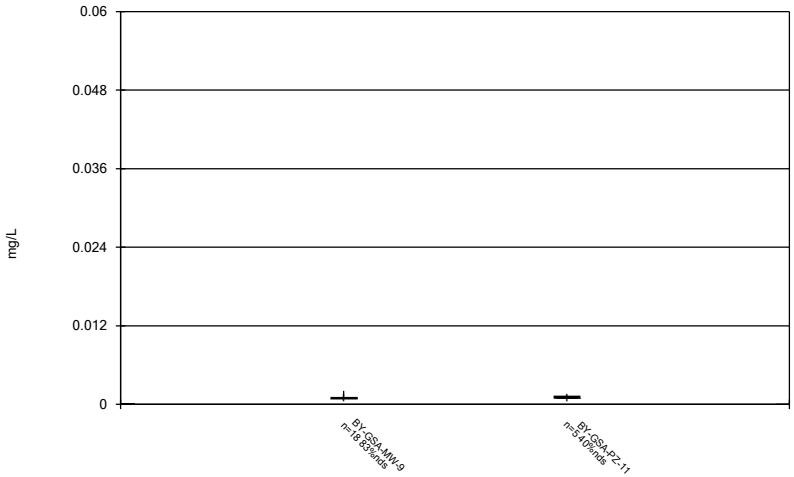


Constituent: Selenium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

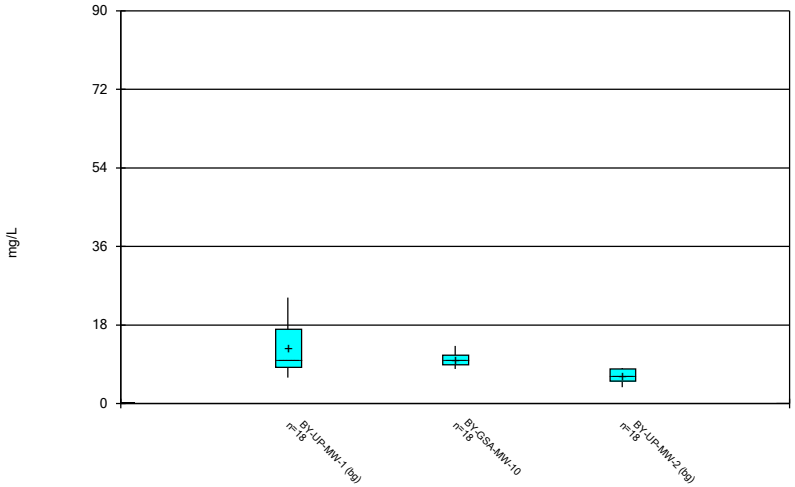


Constituent: Selenium Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

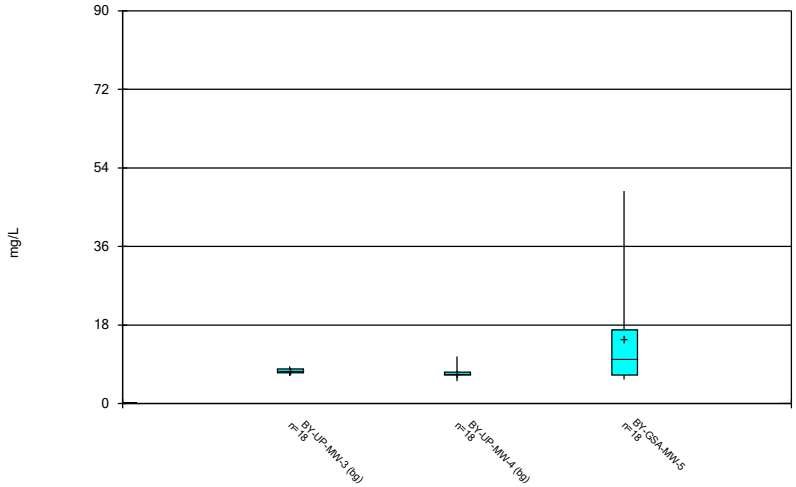


Constituent: Sulfate Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

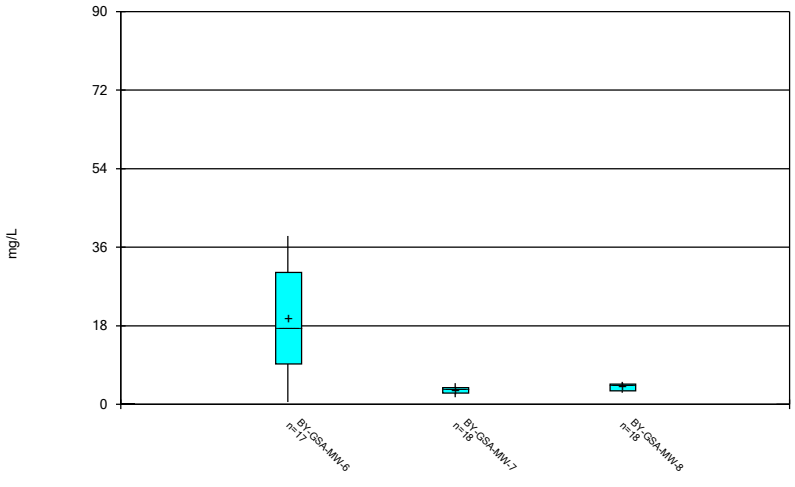


Constituent: Sulfate Analysis Run 7/26/2022 10:23 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

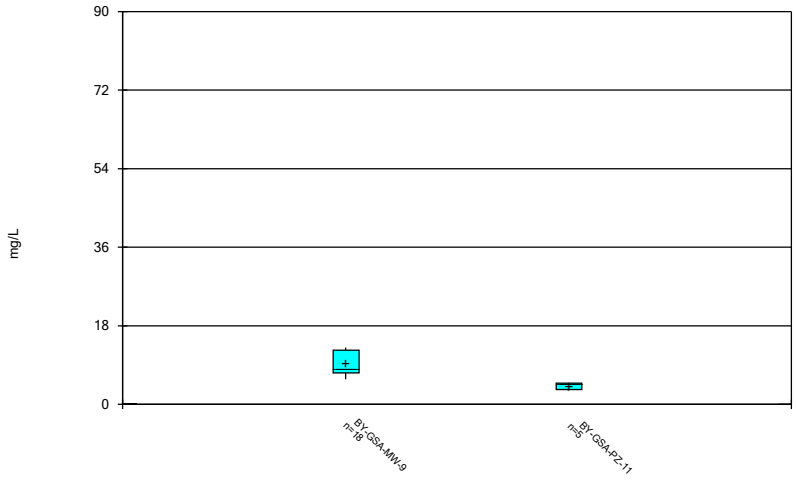


Constituent: Sulfate Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

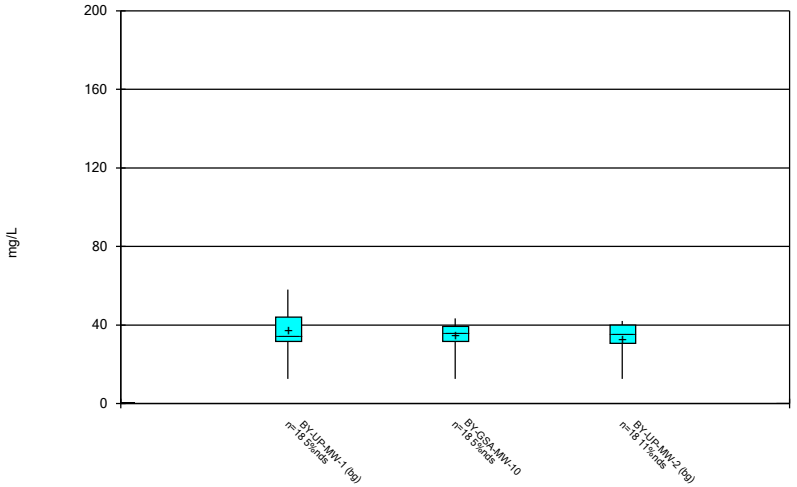


Constituent: Sulfate Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

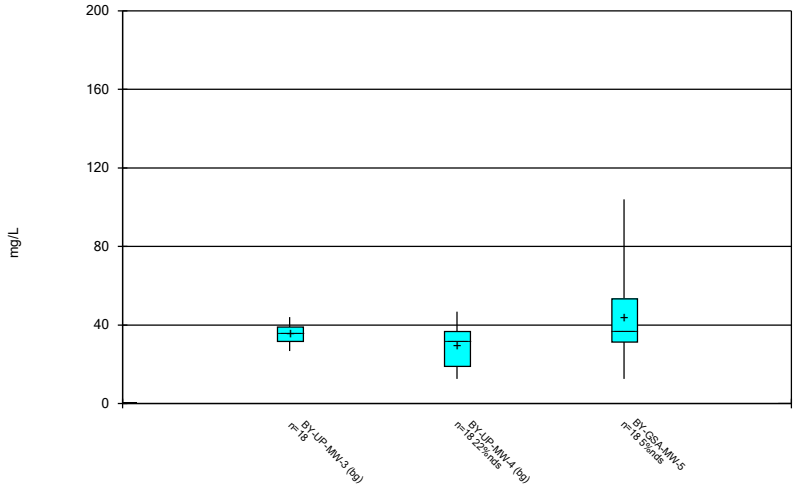


Constituent: TDS Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

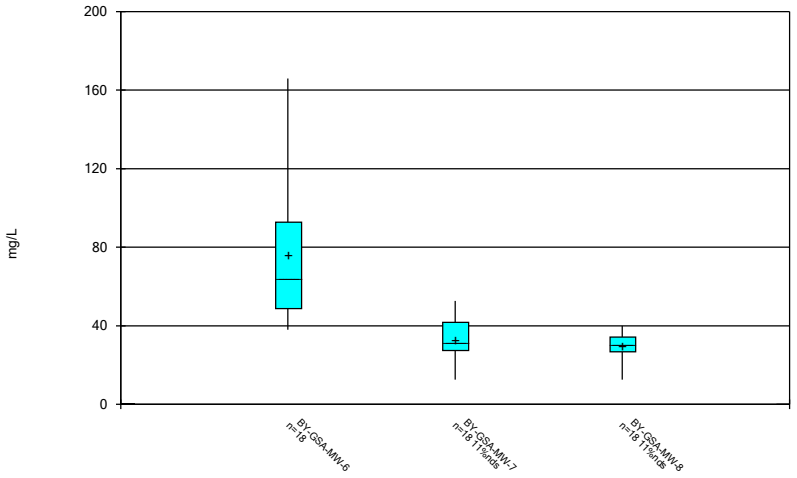


Constituent: TDS Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

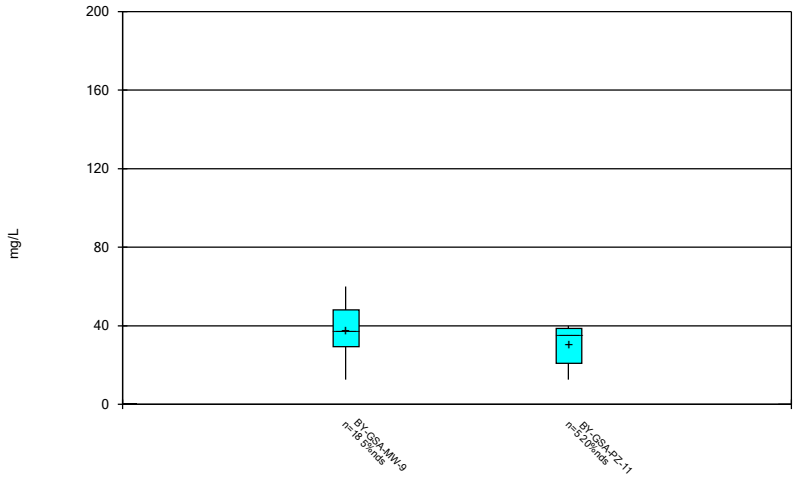


Constituent: TDS Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

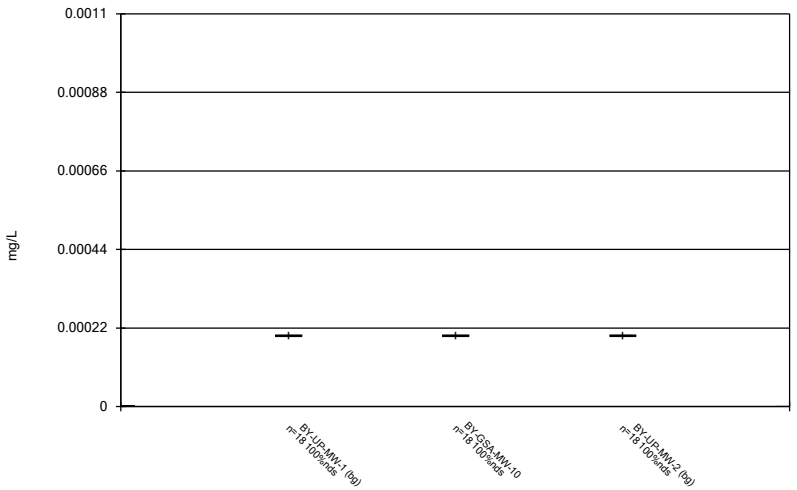


Constituent: TDS Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

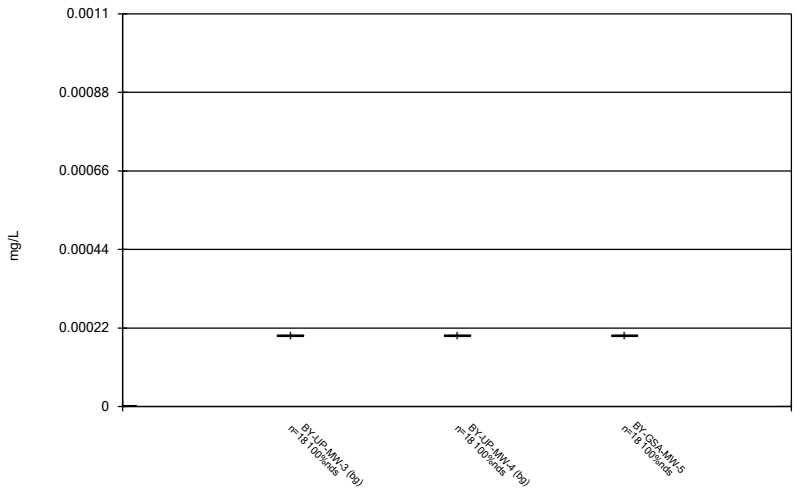


Constituent: Thallium Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

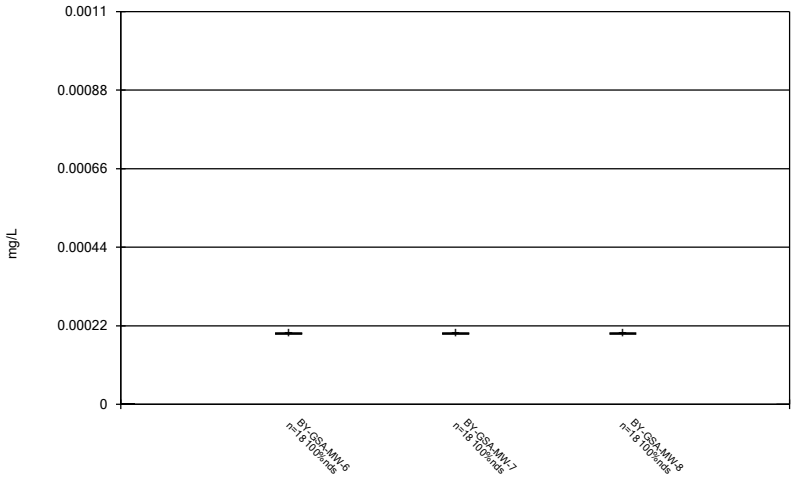


Constituent: Thallium Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot

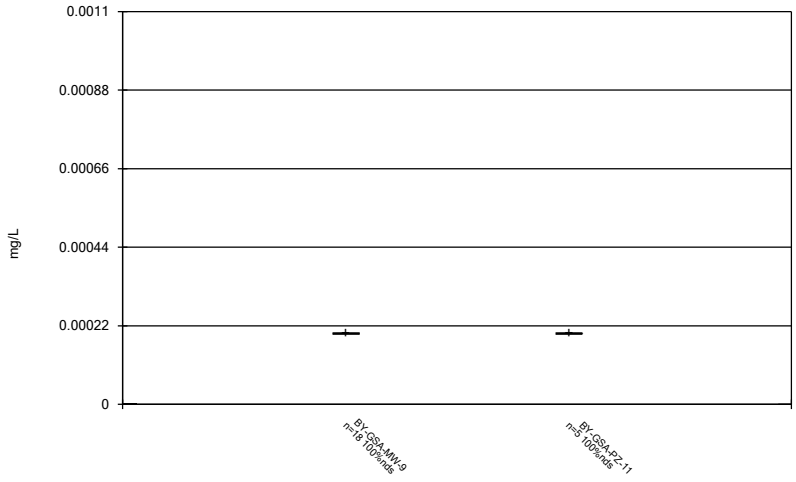


Constituent: Thallium Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 7/26/2022 10:24 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/20/2022, 3:56 PM

	BY-GSA-MW-6 Sulfate (mg/L)
4/18/2016	80.2 (O)

FIGURE D.

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	**BY-GSA-MW-5**	**6.23**	**n/a**	**5/31/2022**	**7.83**	**Yes**	**16**	**n/a**	**n/a**	**6.25**	**n/a**	**n/a**	**0.006456**	**NP Intra (normality) 1 of 2**
Sulfate (mg/L)	**BY-GSA-MW-5**	**34.74**	**n/a**	**5/31/2022**	**48.7**	**Yes**	**16**	**2.238**	**0.4647**	**0**	**None**	**x^(1/3)**	**0.001254**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:31 PM

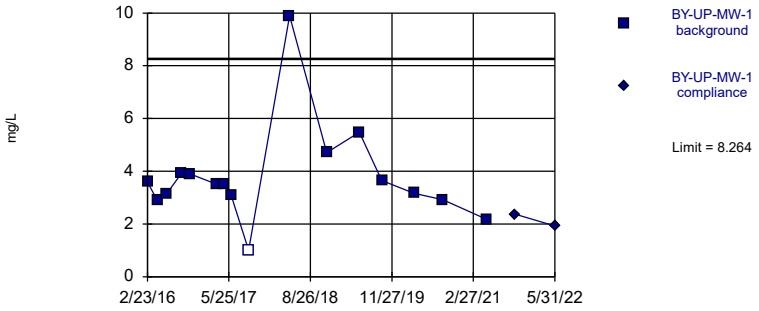
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-UP-MW-1	8.264	n/a	5/31/2022	1.93	No	16	1.897	0.4435	6.25	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	6/1/2022	3.35	No	16	3.79	0.6038	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.698	n/a	5/31/2022	2.17	No	16	3.416	1.035	6.25	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	5/31/2022	3.39	No	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	5/31/2022	3.31	No	16	1.912	0.08933	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	**BY-GSA-MW-5**	**6.23**	**n/a**	**5/31/2022**	**7.83**	**Yes**	**16**	**n/a**	**n/a**	**6.25**	**n/a**	**n/a**	**0.006456**	**NP Intra (normality) 1 of 2**
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	5/31/2022	7.22	No	16	4.996	1.21	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	6/1/2022	14.7	No	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	6/1/2022	5.38	No	16	4.673	0.412	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	6/1/2022	4.29	No	16	6.335	2.163	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	5/31/2022	12.8	No	16	3.458	0.85	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	6/1/2022	11.4	No	16	9.999	1.445	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	5/31/2022	8.09	No	16	6.282	1.406	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	5/31/2022	7.02	No	16	7.496	0.6224	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	5/31/2022	7.94	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Sulfate (mg/L)	**BY-GSA-MW-5**	**34.74**	**n/a**	**5/31/2022**	**48.7**	**Yes**	**16**	**2.238**	**0.4647**	**0**	**None**	**x^(1/3)**	**0.001254**	**Param Intra 1 of 2**
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	5/31/2022	38.6	No	15	18.13	11.34	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	6/1/2022	3.4	No	16	3.349	0.8938	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	6/1/2022	5.11	No	16	3.852	0.8066	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	6/1/2022	13	No	16	8.877	2.273	0	None	No	0.001254	Param Intra 1 of 2

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.897, Std. Dev.=0.4435, n=16, 6.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8589, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

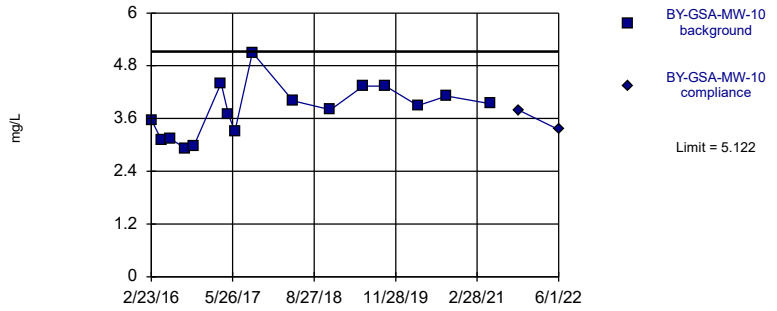
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.79, Std. Dev.=0.6038, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9569, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

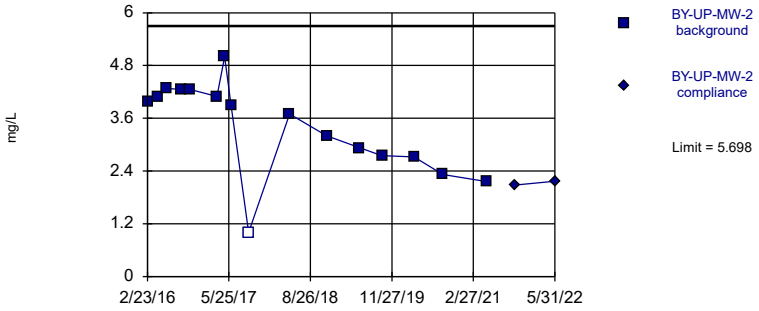
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.416, Std. Dev.=1.035, n=16, 6.25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

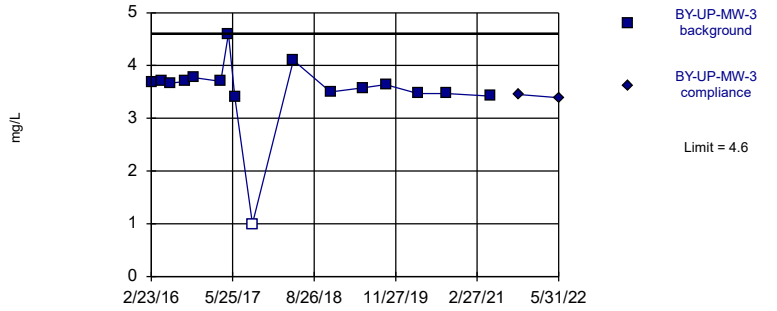
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

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. 6.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

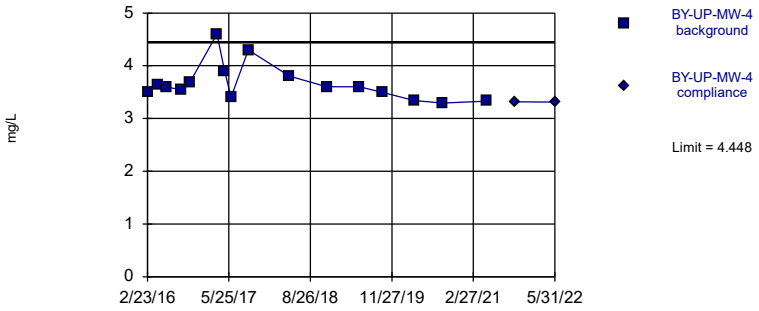
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.912, Std. Dev.=0.08933, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8449, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

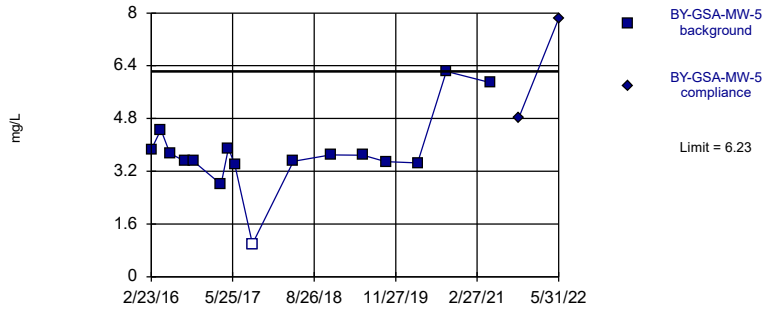
Sanitas™ v.9.6.35 . UG

Hollow symbols indicate censored values.

Exceeds 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. 6.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

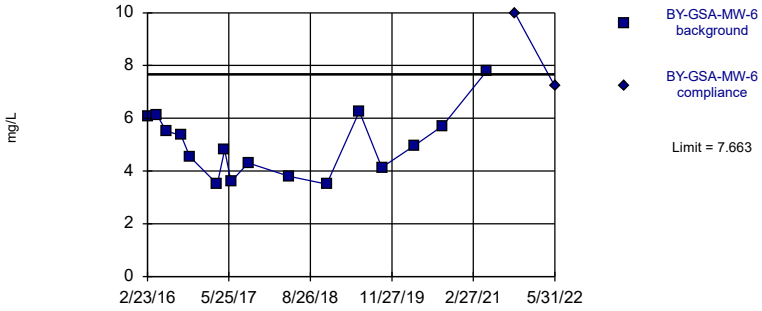
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.996, Std. Dev.=1.21, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9409, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

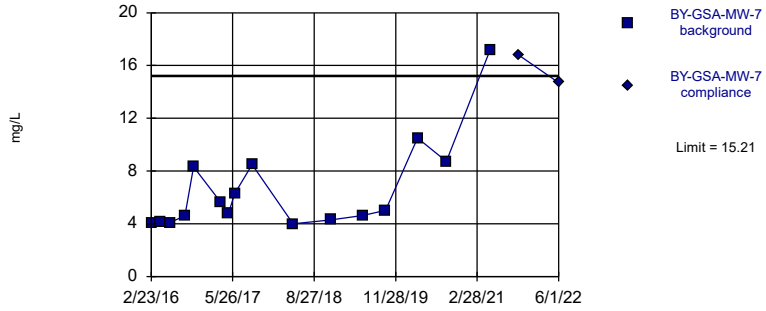
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=1.782, Std. Dev.=0.4263, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8462, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

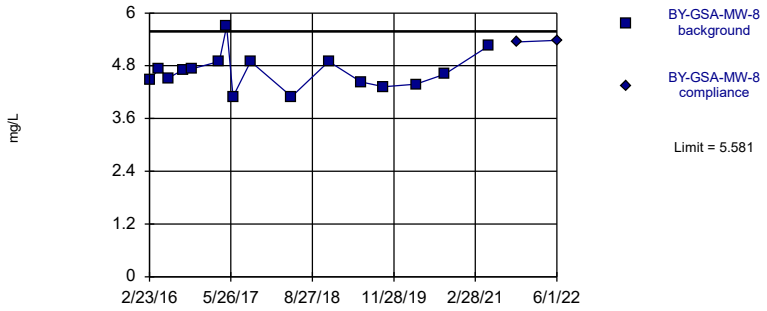
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.673, Std. Dev.=0.412, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9362, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

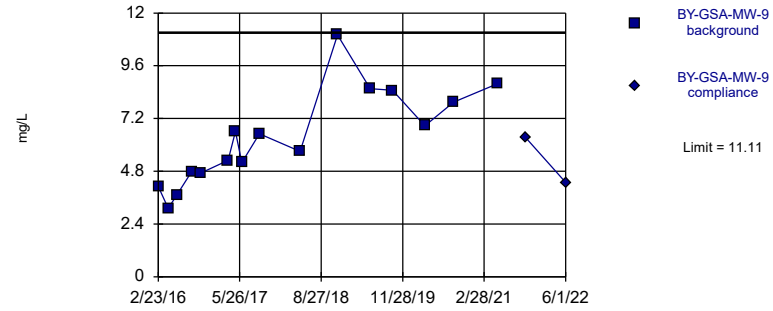
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.335, Std. Dev.=2.163, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9628, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

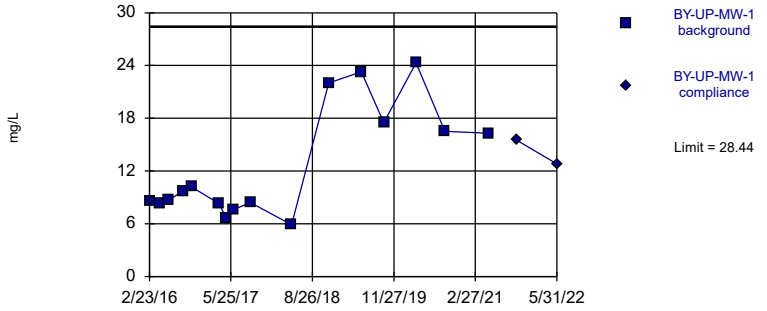
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=3.458, Std. Dev.=0.85, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8598, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

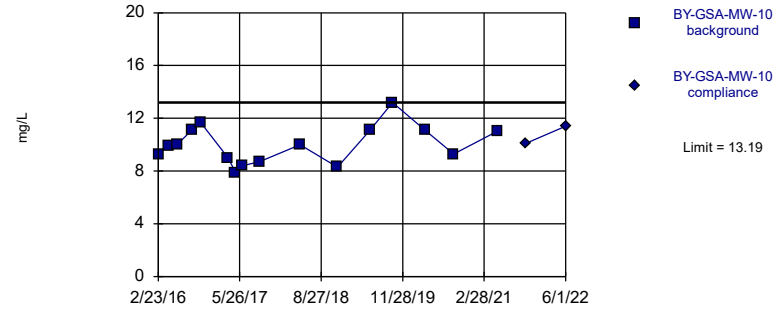
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.999, Std. Dev.=1.445, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9529, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

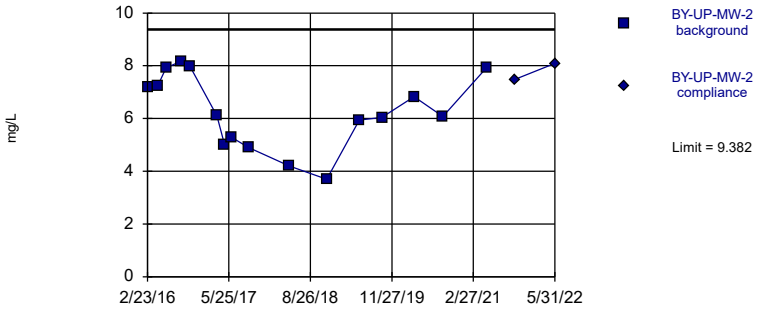
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.282, Std. Dev.=1.406, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9428, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

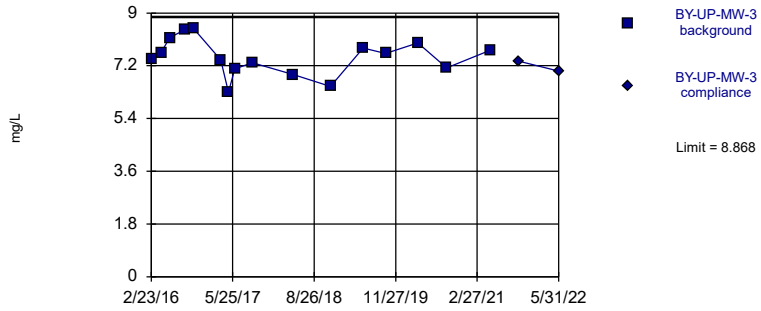
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.496, Std. Dev.=0.6224, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9756, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

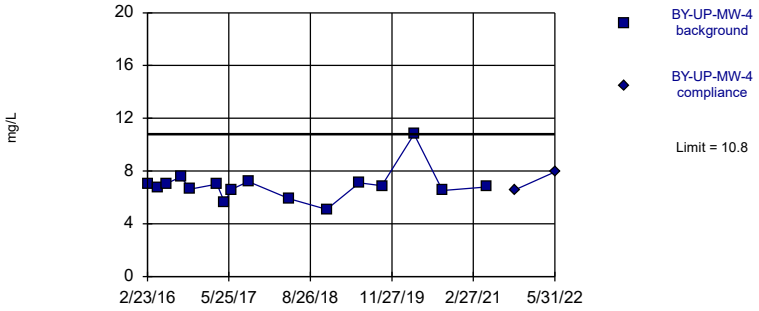
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . 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: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

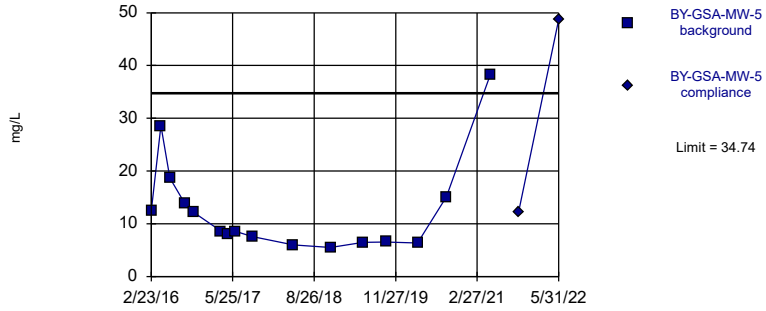
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=2.238, Std. Dev.=0.4647, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8593, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

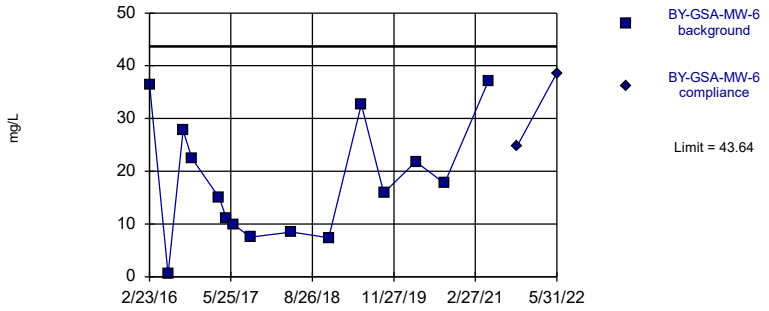
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=18.13, Std. Dev.=11.34, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9407, critical = 0.835. Kappa = 2.25 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

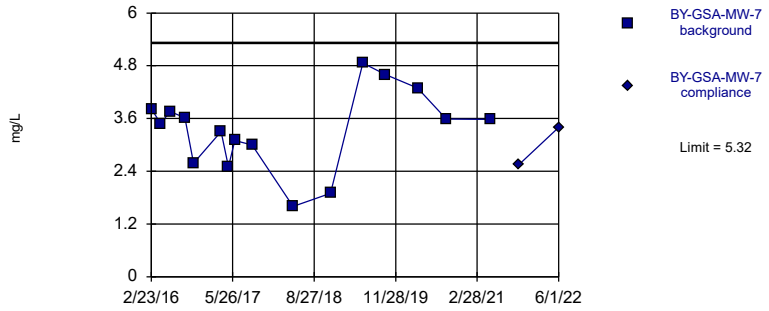
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.349, Std. Dev.=0.8938, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9701, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

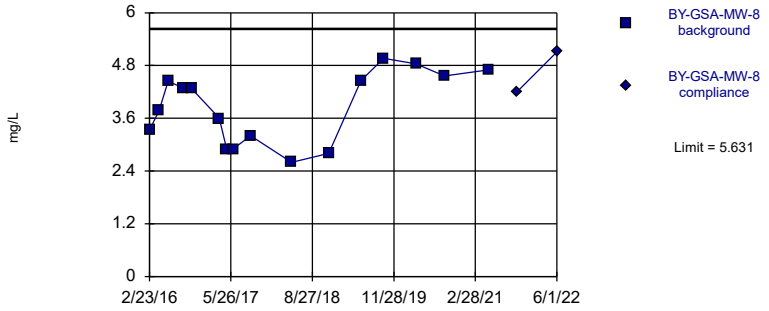
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.852, Std. Dev.=0.8066, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9127, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

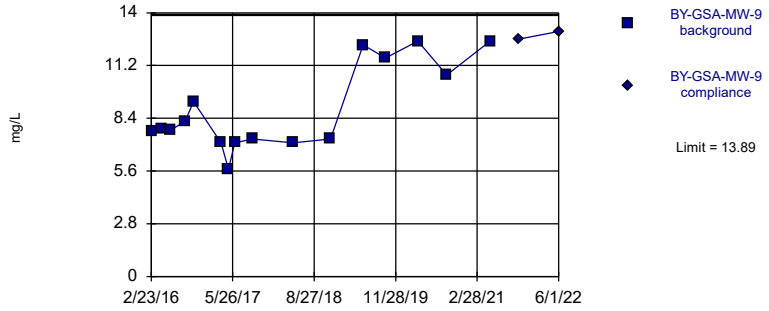
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.877, Std. Dev.=2.273, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8511, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/26/2022 10:30 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	3.59	
4/19/2016	2.89	
6/6/2016	3.12	
8/30/2016	3.91	
10/18/2016	3.9	
3/20/2017	3.5	
5/2/2017	3.5	
6/6/2017	3.1	
9/13/2017	<2 (U*)	
5/2/2018	9.9	
11/27/2018	4.7	
5/29/2019	5.48	
10/2/2019	3.65	
3/31/2020	3.17	
9/9/2020	2.92	
5/12/2021	2.18	
10/19/2021		2.37
5/31/2022		1.93

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	3.57	
4/19/2016	3.12	
6/7/2016	3.14	
8/30/2016	2.93	
10/18/2016	2.96	
3/21/2017	4.4	
5/2/2017	3.7	
6/7/2017	3.3	
9/13/2017	5.1	
5/1/2018	4	
11/26/2018	3.8	
5/29/2019	4.34	
10/2/2019	4.34	
3/31/2020	3.89	
9/9/2020	4.11	
5/12/2021	3.94	
10/19/2021		3.79
6/1/2022		3.35

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	3.99	
4/19/2016	4.08	
6/7/2016	4.28	
8/30/2016	4.26	
10/18/2016	4.26	
3/20/2017	4.1	
5/2/2017	5	
6/6/2017	3.9	
9/13/2017	<2 (U*)	
5/1/2018	3.7	
11/27/2018	3.2	
5/29/2019	2.93	
10/2/2019	2.75	
3/31/2020	2.72	
9/9/2020	2.32	
5/11/2021	2.16	
10/19/2021		2.08
5/31/2022		2.17

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	3.68	
4/19/2016	3.72	
6/7/2016	3.66	
8/30/2016	3.7	
10/18/2016	3.77	
3/20/2017	3.7	
5/2/2017	4.6	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/1/2018	4.1	
11/27/2018	3.5	
5/29/2019	3.58	
10/2/2019	3.64	
3/31/2020	3.47	
9/9/2020	3.47	
5/11/2021	3.42	
10/18/2021		3.45
5/31/2022		3.39

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	3.5	
4/19/2016	3.63	
6/6/2016	3.6	
8/30/2016	3.54	
10/18/2016	3.68	
3/20/2017	4.6	
5/2/2017	3.9	
6/6/2017	3.4	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.6	
5/28/2019	3.6	
10/2/2019	3.5	
3/31/2020	3.34	
9/8/2020	3.29	
5/11/2021	3.33	
10/18/2021		3.32
5/31/2022		3.31

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	3.86	
4/18/2016	4.46	
6/7/2016	3.74	
8/30/2016	3.5	
10/18/2016	3.5	
3/21/2017	2.8	
5/2/2017	3.9	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/2/2018	3.5	
11/27/2018	3.7	
5/28/2019	3.69	
10/2/2019	3.49	
3/30/2020	3.45	
9/8/2020	6.23	
5/12/2021	5.89	
10/19/2021		4.81
5/31/2022		7.83

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	6.06	
4/18/2016	6.13	
6/6/2016	5.52	
8/30/2016	5.35	
10/18/2016	4.55	
3/21/2017	3.5	
5/2/2017	4.8	
6/6/2017	3.6	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.5	
5/28/2019	6.26	
10/2/2019	4.13	
3/30/2020	4.95	
9/8/2020	5.71	
5/12/2021	7.77	
10/18/2021		10
5/31/2022		7.22

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	4.08	
4/18/2016	4.14	
6/6/2016	4.09	
8/30/2016	4.6	
10/18/2016	8.32	
3/21/2017	5.6	
5/2/2017	4.8	
6/7/2017	6.3	
9/12/2017	8.5	
5/1/2018	4	
11/27/2018	4.3	
5/28/2019	4.63	
10/2/2019	5.02	
3/30/2020	10.5	
9/8/2020	8.74	
5/12/2021	17.2	
10/18/2021		16.8
6/1/2022		14.7

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	4.47	
4/18/2016	4.74	
6/7/2016	4.52	
8/30/2016	4.71	
10/18/2016	4.73	
3/21/2017	4.9	
5/2/2017	5.7	
6/7/2017	4.1	
9/13/2017	4.9	
5/2/2018	4.1	
11/27/2018	4.9	
5/28/2019	4.43	
10/2/2019	4.32	
3/30/2020	4.38	
9/8/2020	4.61	
5/12/2021	5.25	
10/19/2021		5.34
6/1/2022		5.38

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	
9/9/2020	7.94	
5/12/2021	8.77	
10/19/2021		6.33
6/1/2022		4.29

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021		15.5
5/31/2022		12.8

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	9.29	
4/19/2016	9.92	
6/7/2016	10	
8/30/2016	11.1	
10/18/2016	11.7	
3/21/2017	9	
5/2/2017	7.9	
6/7/2017	8.4	
9/13/2017	8.7	
5/1/2018	10	
11/26/2018	8.3	
5/29/2019	11.1	
10/2/2019	13.2	
3/31/2020	11.1	
9/9/2020	9.28	
5/12/2021	11	
10/19/2021		10.1
6/1/2022		11.4

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
11/27/2018	3.7 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021		7.48
5/31/2022		8.09

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021		7.36
5/31/2022		7.02

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021		6.58
5/31/2022		7.94

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	12.5	
4/18/2016	28.6	
6/7/2016	18.7	
8/30/2016	13.8	
10/18/2016	12.2	
3/21/2017	8.6	
5/2/2017	8	
6/6/2017	8.6	
9/13/2017	7.6	
5/2/2018	6	
11/27/2018	5.5	
5/28/2019	6.5	
10/2/2019	6.55	
3/30/2020	6.34	
9/8/2020	15.1	
5/12/2021	38.2	
10/19/2021		12.3
5/31/2022		48.7

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	36.5	
4/18/2016	80.2 (O)	
6/6/2016	0.498 (J)	
8/30/2016	27.8	
10/18/2016	22.5	
3/21/2017	15	
5/2/2017	11	
6/6/2017	10	
9/12/2017	7.5	
5/1/2018	8.5	
11/26/2018	7.4	
5/28/2019	32.7	
10/2/2019	15.9	
3/30/2020	21.8	
9/8/2020	17.7	
5/12/2021	37.1	
10/18/2021		24.7
5/31/2022		38.6

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	3.82	
4/18/2016	3.48	
6/6/2016	3.76	
8/30/2016	3.62	
10/18/2016	2.58	
3/21/2017	3.3 (J)	
5/2/2017	2.5 (J)	
6/7/2017	3.1 (J)	
9/12/2017	3 (J)	
5/1/2018	1.6 (J)	
11/27/2018	1.9 (J)	
5/28/2019	4.86	
10/2/2019	4.6	
3/30/2020	4.29	
9/8/2020	3.59	
5/12/2021	3.58	
10/18/2021		2.54
6/1/2022		3.4

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	3.33	
4/18/2016	3.78	
6/7/2016	4.44	
8/30/2016	4.29	
10/18/2016	4.27	
3/21/2017	3.6 (J)	
5/2/2017	2.9 (J)	
6/7/2017	2.9 (J)	
9/13/2017	3.2 (J)	
5/2/2018	2.6 (J)	
11/27/2018	2.8 (J)	
5/28/2019	4.46	
10/2/2019	4.96	
3/30/2020	4.84	
9/8/2020	4.56	
5/12/2021	4.7	
10/19/2021		4.2
6/1/2022		5.11

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/26/2022 10:31 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	
9/9/2020	10.7	
5/12/2021	12.5	
10/19/2021		12.6
6/1/2022		13

FIGURE E.

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**BY-GSA-MW-5**	**0.188**	**n/a**	**5/31/2022**	**0.939**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**5/31/2022**	**0.685**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Calcium, total (mg/L)	**BY-GSA-MW-5**	**2.067**	**n/a**	**5/31/2022**	**8.52**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Calcium, total (mg/L)	**BY-GSA-MW-6**	**2.067**	**n/a**	**5/31/2022**	**9.98**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
TDS (mg/L)	**BY-GSA-MW-5**	**58**	**n/a**	**5/31/2022**	**104**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-GSA-MW-6**	**58**	**n/a**	**5/31/2022**	**85.3**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/27/2022, 11:21 AM

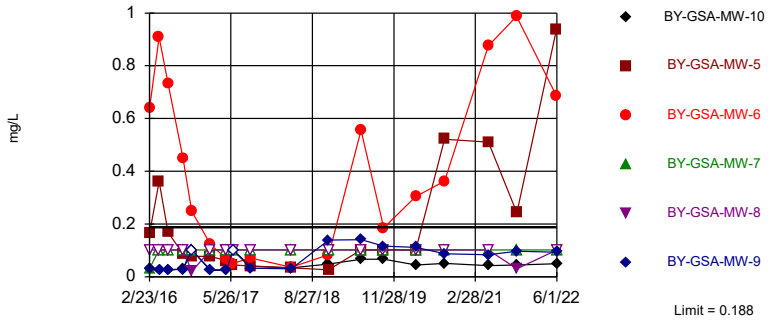
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	6/1/2022	0.0493J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-GSA-MW-5**	**0.188**	**n/a**	**5/31/2022**	**0.939**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**5/31/2022**	**0.685**	**Yes**	**72**	**n/a**	**n/a**	**79.17**	**n/a**	**n/a**	**0.0003696**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	6/1/2022	0.1015ND	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	6/1/2022	0.0933J	No	72	n/a	n/a	79.17	n/a	n/a	0.0003696	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.067	n/a	6/1/2022	1.04	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	**BY-GSA-MW-5**	**2.067**	**n/a**	**5/31/2022**	**8.52**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Calcium, total (mg/L)	**BY-GSA-MW-6**	**2.067**	**n/a**	**5/31/2022**	**9.98**	**Yes**	**72**	**1.501**	**0.3034**	**0**	**None**	**No**	**0.001254**	**Param Inter 1 of 2**
Calcium, total (mg/L)	BY-GSA-MW-7	2.067	n/a	6/1/2022	1.27	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.067	n/a	6/1/2022	0.94	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.067	n/a	6/1/2022	1.55	No	72	1.501	0.3034	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	5/31/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	6/1/2022	0.125ND	No	76	n/a	n/a	61.84	n/a	n/a	0.0003342	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	5/31/2022	4.61	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	5/31/2022	4.98	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	6/1/2022	4.56	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	6/1/2022	4.03	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	6/1/2022	4.49	No	80	n/a	n/a	0	n/a	n/a	0.0005976	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	6/1/2022	40.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-GSA-MW-5**	**58**	**n/a**	**5/31/2022**	**104**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-GSA-MW-6**	**58**	**n/a**	**5/31/2022**	**85.3**	**Yes**	**72**	**n/a**	**n/a**	**9.722**	**n/a**	**n/a**	**0.0003696**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	BY-GSA-MW-7	58	n/a	6/1/2022	41.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	6/1/2022	30.7	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	6/1/2022	39.3	No	72	n/a	n/a	9.722	n/a	n/a	0.0003696	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 79.17% NDs. Annual per-constituent alpha = 0.004426. Individual comparison alpha = 0.0003696 (1 of 2). Comparing 6 points to limit.

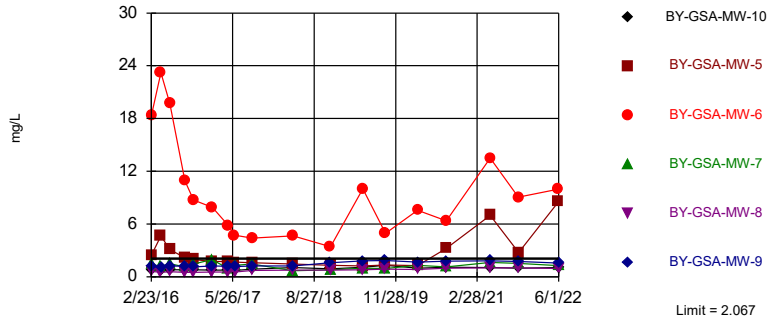
Constituent: Boron Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1.501, Std. Dev.=0.3034, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9742, critical = 0.954. Kappa = 1.866 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

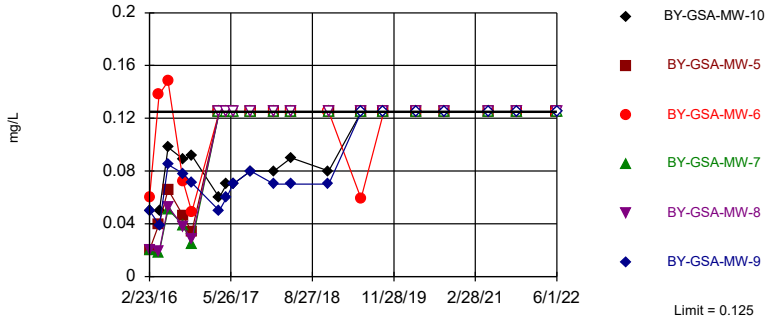
Constituent: Calcium, total Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 76 background values. 61.84% NDs. Annual per-constituent alpha = 0.004003. Individual comparison alpha = 0.0003342 (1 of 2). Comparing 6 points to limit.

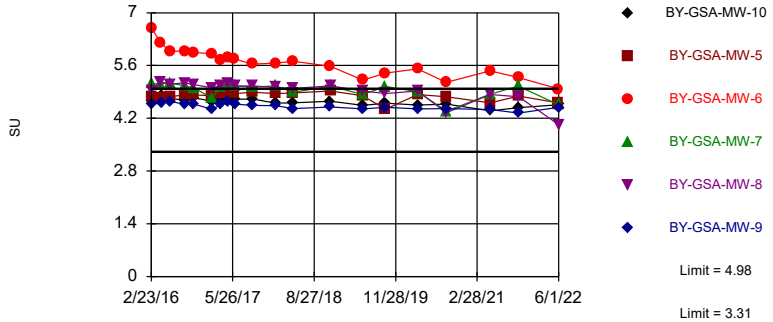
Constituent: Fluoride Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Within Limits

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. Limits are highest and lowest of 80 background values. Annual per-constituent alpha = 0.00716. Individual comparison alpha = 0.0005976 (1 of 2). Comparing 6 points to limit.

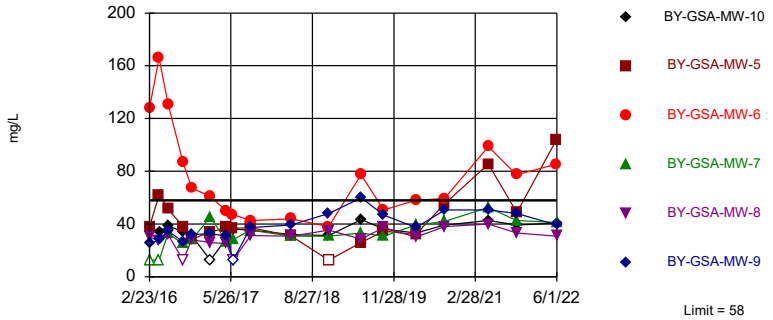
Constituent: pH, Field Analysis Run 7/27/2022 11:17 AM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

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 72 background values. 9.722% NDs. Annual per-constituent alpha = 0.004426. Individual comparison alpha = 0.0003696 (1 of 2). Comparing 6 points to limit.

Constituent: TDS Analysis Run 7/27/2022 11:17 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)	BY-GSA-MW-6
2/23/2016	0.0294 (J)	0.0297 (J)	0.0314 (J)	0.0212 (J)	0.0252 (J)	<0.1015	0.163	0.0257 (J)	0.638
4/18/2016			<0.1015				0.361		0.908
4/19/2016	0.0257 (J)	0.0269 (J)		<0.1015	<0.1015	<0.1015		<0.1015	
6/6/2016			<0.1015	<0.1015				<0.1015	0.733
6/7/2016	0.0257 (J)	0.0271 (J)			0.0202 (J)	<0.1015	0.169		
8/30/2016	0.0317 (J)	0.0272 (J)	<0.1015	<0.1015	<0.1015	<0.1015	0.0858 (J)	<0.1015	0.448
10/18/2016	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015	<0.1015	0.0778 (J)	0.022 (J)	0.249
1/30/2017	0.0243 (J)	0.0269 (J)	<0.1015						
1/31/2017				<0.1015	<0.1015	<0.1015	0.077 (J)	<0.1015	0.121
5/2/2017	0.0259 (J)	0.027 (J)	<0.1015	<0.1015	<0.1015	<0.1015	0.0602 (J)	<0.1015	0.0695 (J)
6/6/2017				<0.1015	<0.1015	<0.1015	0.0442 (J)	<0.1015	0.0509 (J)
6/7/2017	<0.1015	<0.1015	<0.1015						
9/12/2017			<0.1015					<0.1015	0.0709 (J)
9/13/2017	0.0394 (J)	0.032 (J)		<0.1015	<0.1015	<0.1015	0.0411 (J)		
5/1/2018	0.0338 (J)	0.0302 (J)	<0.1015		<0.1015	<0.1015		<0.1015	0.0365 (J)
5/2/2018				0.0362 (J)			0.0334 (J)		
11/26/2018	0.0484 (J)	0.139						<0.1015	0.0836 (J)
11/27/2018			<0.1015	0.11	0.0207 (J)	<0.1015	0.0265 (J)		
5/28/2019			<0.1015				<0.1015	<0.1015	0.556
5/29/2019	0.0669 (J)	0.141		0.188	<0.1015	<0.1015			
10/2/2019	0.0671 (J)	0.116	<0.1015	0.097 (J)	<0.1015	<0.1015	<0.1015	<0.1015	0.186
3/30/2020			<0.1015				<0.1015		0.304
3/31/2020	0.0442 (J)	0.112		0.157	<0.1015	<0.1015		<0.1015	
9/8/2020			<0.1015				0.521	<0.1015	0.362
9/9/2020	0.0509 (J)	0.0873 (J)		0.0999 (J)	<0.1015	<0.1015			
5/11/2021					<0.1015	<0.1015		<0.1015	
5/12/2021	0.0423 (J)	0.0834 (J)	<0.1015	0.0841 (J)			0.511		0.876
10/18/2021			<0.1015			<0.1015		<0.1015	0.987
10/19/2021	0.0444 (J)	0.0966 (J)		0.0708 (J)	<0.1015		0.243		
5/31/2022				0.0567 (J)	<0.1015	<0.1015	0.939	<0.1015	0.685
6/1/2022	0.0493 (J)	0.0933 (J)	<0.1015						

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8
2/23/2016	<0.1015
4/18/2016	<0.1015
4/19/2016	
6/6/2016	
6/7/2016	<0.1015
8/30/2016	<0.1015
10/18/2016	0.0207 (J)
1/30/2017	
1/31/2017	<0.1015
5/2/2017	<0.1015
6/6/2017	
6/7/2017	<0.1015
9/12/2017	
9/13/2017	<0.1015
5/1/2018	
5/2/2018	<0.1015
11/26/2018	
11/27/2018	<0.1015
5/28/2019	<0.1015
5/29/2019	
10/2/2019	<0.1015
3/30/2020	<0.1015
3/31/2020	
9/8/2020	<0.1015
9/9/2020	
5/11/2021	
5/12/2021	<0.1015
10/18/2021	
10/19/2021	0.0303 (J)
5/31/2022	
6/1/2022	<0.1015

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)	BY-GSA-MW-6
2/23/2016	0.795	1.15	1.4	1.28	1.11	1.77	2.42	1.42	18.3
4/18/2016			1.2				4.65		23.2
4/19/2016	0.761	1.04		1.19	1.09	1.68		1.31	
6/6/2016			1.48	1.19				1.35	19.7
6/7/2016	0.799	1.22			1.16	1.68	3.1		
8/30/2016	0.788	1.18	1.13	1.11	1.08	1.62	2.19	1.31	10.9
10/18/2016	0.788	1.12	1.45	1.04	1.03	1.53	1.97	1.22	8.74
1/30/2017	0.755	1.23	1.95						
1/31/2017				1.19	1.23	1.65	1.73	1.36	7.89
5/2/2017	0.763	1.2	0.908	1.05	1.28	1.58	1.74	1.24	5.81
6/6/2017				0.978	1.25	1.55	1.66	1.28	4.72
6/7/2017	0.706	1.17	1.29						
9/12/2017			1.44					1.47	4.39
9/13/2017	0.873	1.25		1.14	1.6	1.71	1.61		
5/1/2018	1.05	1.25	0.695		1.58	1.76		1.47	4.66
5/2/2018				1.64			1.44		
11/26/2018	0.922	1.61						1.52	3.41
11/27/2018			0.798	2.01	1.49	1.69	1.3		
5/28/2019			0.973				1.25	1.6	10
5/29/2019	1.07	1.8		1.85	1.59	1.74			
10/2/2019	1.32	1.85	0.929	1.55	1.7	1.86	1.33	1.7	4.94
3/30/2020			1.32				1.26		7.56
3/31/2020	0.98	1.67		1.96	1.43	1.92		1.78	
9/8/2020			1.12				3.24	1.94	6.38
9/9/2020	1.1	1.79		1.43	1.5	1.97			
5/11/2021					1.39	2.06		1.93	
5/12/2021	1.06	1.82	1.63	1.34			7		13.5
10/18/2021			1.53			2.1		2.01	9.06
10/19/2021	0.977	1.75		1.17	1.32		2.75		
5/31/2022				1.14	1.24	1.95	8.52	2.02	9.98
6/1/2022	1.04	1.55	1.27						

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8
2/23/2016	0.618
4/18/2016	0.505
4/19/2016	
6/6/2016	
6/7/2016	0.587
8/30/2016	0.495 (J)
10/18/2016	0.503
1/30/2017	
1/31/2017	0.554
5/2/2017	0.548
6/6/2017	
6/7/2017	0.545
9/12/2017	
9/13/2017	0.723
5/1/2018	
5/2/2018	0.751
11/26/2018	
11/27/2018	0.743
5/28/2019	0.789
5/29/2019	
10/2/2019	0.882
3/30/2020	0.841
3/31/2020	
9/8/2020	0.981
9/9/2020	
5/11/2021	
5/12/2021	1.02
10/18/2021	
10/19/2021	1.01
5/31/2022	
6/1/2022	0.94

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5
2/23/2016	0.05 (J)	0.02 (J)	0.05 (J)	0.02 (J)	0.03 (J)	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)
4/18/2016		0.019 (J)		0.018 (J)			0.138 (J)		0.04 (J)
4/19/2016	0.05 (J)		0.039 (J)		0.023 (J)	0.021 (J)		0.016 (J)	
6/6/2016				0.051 (J)	0.062 (J)		0.148 (J)		
6/7/2016	0.098 (J)	0.053 (J)	0.085 (J)			0.06 (J)		0.052 (J)	0.066 (J)
8/30/2016	0.089 (J)	0.038 (J)	0.078 (J)	0.039 (J)	0.053 (J)	0.05 (J)	0.072 (J)	0.038 (J)	0.046 (J)
10/18/2016	0.092 (J)	0.028 (J)	0.071 (J)	0.025 (J)	0.042 (J)	0.04 (J)	0.049 (J)	0.03 (J)	0.034 (J)
3/20/2017					<0.125	<0.125		<0.125	
3/21/2017	0.06 (J)	<0.125	0.05 (J)	<0.125			<0.125		<0.125
5/2/2017	0.07 (J)	<0.125	0.06 (J)	<0.125	0.04 (J)	0.04 (J)	<0.125	<0.125	<0.125
6/6/2017					<0.125	0.04 (J)	<0.125	<0.125	<0.125
6/7/2017	0.07 (J)	<0.125	0.07 (J)	<0.125					
9/12/2017				<0.125			<0.125		
9/13/2017	0.08 (J)	<0.125	0.08 (J)		0.04 (J)	0.043 (J)		<0.125	<0.125
1/22/2018				<0.125			<0.125		
1/23/2018	0.08 (J)		0.07 (J)		<0.125	0.04 (J)		<0.125	
1/24/2018		<0.125							<0.125
5/1/2018	0.09 (J)		0.07 (J)	<0.125		0.04 (J)	<0.125	<0.125	
5/2/2018		<0.125			0.04 (J)				<0.125
11/26/2018	0.08 (J)		0.07 (J)				<0.125		
11/27/2018		<0.125		<0.125	<0.125	<0.125		<0.125	<0.125
5/28/2019		<0.125		<0.125			0.0591 (J)		<0.125
5/29/2019	<0.125		<0.125		0.0502 (J)	<0.125		<0.125	
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125		<0.125			<0.125		<0.125
3/31/2020	<0.125		<0.125		<0.125	<0.125		<0.125	
9/8/2020		<0.125		<0.125			<0.125		<0.125
9/9/2020	<0.125		<0.125		<0.125	<0.125		<0.125	
5/11/2021						<0.125		<0.125	
5/12/2021	<0.125	<0.125	<0.125	<0.125	<0.125		<0.125		<0.125
10/18/2021				<0.125			<0.125	<0.125	
10/19/2021	<0.125	<0.125	<0.125		<0.125	<0.125			<0.125
5/31/2022					<0.125	<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125	<0.125	<0.125	<0.125					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)
2/23/2016	0.02 (J)
4/18/2016	
4/19/2016	0.015 (J)
6/6/2016	0.05 (J)
6/7/2016	
8/30/2016	0.036 (J)
10/18/2016	0.025 (J)
3/20/2017	<0.125
3/21/2017	
5/2/2017	<0.125
6/6/2017	<0.125
6/7/2017	
9/12/2017	<0.125
9/13/2017	
1/22/2018	
1/23/2018	<0.125
1/24/2018	
5/1/2018	<0.125
5/2/2018	
11/26/2018	<0.125
11/27/2018	
5/28/2019	<0.125
5/29/2019	
10/2/2019	<0.125
3/30/2020	
3/31/2020	<0.125
9/8/2020	<0.125
9/9/2020	
5/11/2021	<0.125
5/12/2021	
10/18/2021	<0.125
10/19/2021	
5/31/2022	<0.125
6/1/2022	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-6	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-7	BY-GSA-MW-5	BY-GSA-MW-8	BY-GSA-MW-9	BY-UP-MW-1 (bg)
2/23/2016	4.67	6.59	4.79	4.96	5.12	4.76	4.92	4.56	4.62
4/18/2016		6.21			5.11	4.75	5.16		
4/19/2016	4.79		4.84	4.94				4.62	4.74
6/6/2016		5.97			5.14				4.65
6/7/2016	4.73		4.81	4.96		4.77	5.11	4.64	
8/30/2016	4.68	5.99	4.76	4.92	5.06	4.82	5.14	4.58	4.64
10/18/2016	4.75	5.94	4.84	4.98	5.01	4.82	5.09	4.58	4.74
1/30/2017	4.65				4.74			4.44	
1/31/2017		5.92	4.6	4.74		4.8	5.01		4.54
3/20/2017			4.71	4.9					4.67
3/21/2017	4.68	5.74			5.04	4.86	5.07	4.57	
5/2/2017	4.75	5.82	4.8	4.98	5.08	4.89	5.13	4.64	4.79
6/6/2017		5.77	4.72	4.94		4.86			4.76
6/7/2017	4.7				5.07		5.05	4.58	
9/12/2017		5.64			5.03				
9/13/2017	4.71		4.71	4.93		4.89	5.06	4.54	4.81
1/22/2018		5.66			5.06				
1/23/2018	4.6		4.67	4.91				4.53	4.79
1/24/2018						4.86	5.02		
5/1/2018	4.61	5.71	4.61	4.87	4.89			4.46	
5/2/2018						4.87	4.99		4.62
11/26/2018	4.65	5.58						4.5	
11/27/2018			4.72	4.94	5.05	4.92	5.06		4.73
5/28/2019		5.21			4.83	4.8	4.92		
5/29/2019	4.54		4.58	4.8				4.45	4.65
10/2/2019	4.6	5.4	4.43	4.52	5.04	4.44	4.86	4.49	4.57
3/30/2020		5.51			4.91	4.83	4.92		
3/31/2020	4.55		4.6	4.4				4.45	4.64
9/8/2020		5.15			4.39	4.77	4.35		
9/9/2020	4.58		4.67	4.76				4.46	4.65
5/11/2021			4.29	4.53					
5/12/2021	4.4	5.46			4.84	4.61	4.83	4.43	4.74
10/18/2021		5.28		4.55	5.05				
10/19/2021	4.48		4.6			4.79	4.77	4.34	4.67
5/31/2022		4.98	3.31	3.54		4.61			3.89
6/1/2022	4.56				4.56		4.03	4.49	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)
2/23/2016	4.74
4/18/2016	
4/19/2016	4.86
6/6/2016	4.88
6/7/2016	
8/30/2016	4.91
10/18/2016	4.95
1/30/2017	
1/31/2017	4.71
3/20/2017	4.83
3/21/2017	
5/2/2017	4.93
6/6/2017	4.9
6/7/2017	
9/12/2017	4.82
9/13/2017	
1/22/2018	
1/23/2018	4.85
1/24/2018	
5/1/2018	4.8
5/2/2018	
11/26/2018	4.88
11/27/2018	
5/28/2019	4.73
5/29/2019	
10/2/2019	4.67
3/30/2020	
3/31/2020	4.51
9/8/2020	4.75
9/9/2020	
5/11/2021	4.67
5/12/2021	
10/18/2021	4.38
10/19/2021	
5/31/2022	3.97
6/1/2022	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-7	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)	BY-GSA-MW-6
2/23/2016	37.3	25.3	<25	26.7	30.7	40	38	<25	128
4/18/2016			<25				62		166
4/19/2016	34	28		<25	<25	32		<25	
6/6/2016			32.7	32.7				28.7	131
6/7/2016	38.7	34.7			35.3	38.7	51.3		
8/30/2016	34	26.7	25.3	33.3	27.3	31.3	38	25.3	86.7
10/18/2016	31.3	32	28	27.3	<25	26.7	28.7	<25	67.3
1/30/2017	<25	32.7	45.3						
1/31/2017				32	32.7	30	34	26	60.7
5/2/2017	29.3	30.7	26.7	31.3	30.7	30.7	37.3	<25	50
6/6/2017				35.3	34.7	32.7	36.7	42.7	47.3
6/7/2017	36	<25	28						
9/12/2017			35.3					26.7	42.7
9/13/2017	35.3	37.3		36.7	39.3	38	37.3		
5/1/2018	32	39.3	30.7		42	35.3		34.7	44
5/2/2018				34			30.7		
11/26/2018	31.3	48						32.7	38
11/27/2018			30.7	50.7	31.3	36	<25		
5/28/2019			33.3				26	31.3	77.3
5/29/2019	43.3	60		58	40	37.3			
10/2/2019	36	46.7	30.7	46	41.3	36.7	34.7	36	50.7
3/30/2020			39.3				32		58
3/31/2020	33.3	37.3		53.3	40	39.3		36.7	
9/8/2020			42				55.3	39.3	59.3
9/9/2020	39.3	50.7		42	40.7	42.7			
5/11/2021					35.3	44		46.7	
5/12/2021	42.7	50.7	52.7	40.7			85.3		98.7
10/18/2021			42.7			36		36	77.3
10/19/2021	39.3	48		40	36		48.7		
5/31/2022				32	30.7	35.3	104	36.7	85.3
6/1/2022	40.7	39.3	41.3						

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/27/2022 11:21 AM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8
2/23/2016	30
4/18/2016	27.3
4/19/2016	
6/6/2016	
6/7/2016	32
8/30/2016	<25
10/18/2016	28
1/30/2017	
1/31/2017	26
5/2/2017	25.3
6/6/2017	
6/7/2017	<25
9/12/2017	
9/13/2017	31.3
5/1/2018	
5/2/2018	30.7
11/26/2018	
11/27/2018	35.3
5/28/2019	28.7
5/29/2019	
10/2/2019	37.3
3/30/2020	30
3/31/2020	
9/8/2020	38
9/9/2020	
5/11/2021	
5/12/2021	40
10/18/2021	
10/19/2021	33.3
5/31/2022	
6/1/2022	30.7

FIGURE F.

Trend Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	**BY-UP-MW-3 (bg)**	**0.07505**	**86**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium, total (mg/L)	**BY-UP-MW-4 (bg)**	**0.1262**	**111**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	**BY-UP-MW-2 (bg)**	**-0.385**	**-100**	**-68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	**BY-UP-MW-4 (bg)**	**-0.05925**	**-69**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-UP-MW-1 (bg)**	**3.147**	**72**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-UP-MW-4 (bg)**	**3.695**	**95**	**68**	**Yes**	**18**	**22.22**	**n/a**	**n/a**	**0.01**	**NP**

Trend Test - All Results

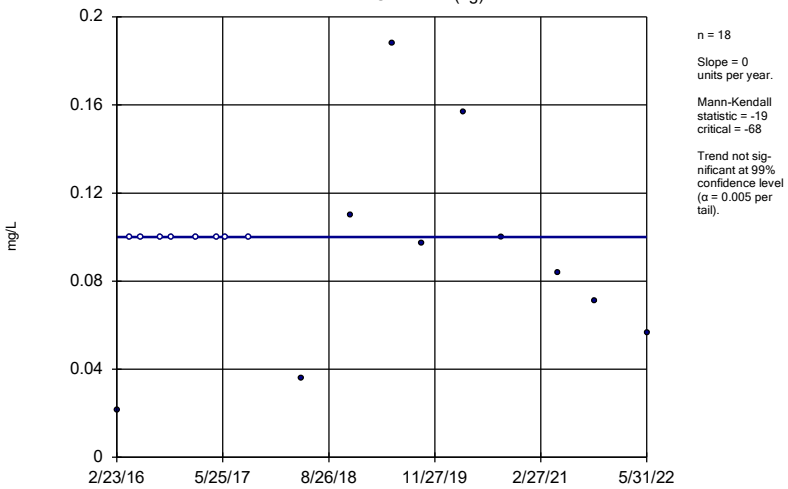
Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-UP-MW-1 (bg)	0	-19	-68	No	18	44.44	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	26	68	No	18	83.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	68	No	18	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	25	68	No	18	88.89	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-5	0.008619	18	68	No	18	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.01595	11	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	0.02597	19	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.06598	57	68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	**BY-UP-MW-3 (bg)**	**0.07505**	**86**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium, total (mg/L)	**BY-UP-MW-4 (bg)**	**0.1262**	**111**	**68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium, total (mg/L)	BY-GSA-MW-5	-0.1695	-27	-68	No	18	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-1.153	-35	-68	No	18	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1727	-38	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	**BY-UP-MW-2 (bg)**	**-0.385**	**-100**	**-68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.04978	-67	-68	No	18	5.556	n/a	n/a	0.01	NP
Chloride, total (mg/L)	**BY-UP-MW-4 (bg)**	**-0.05925**	**-69**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride, total (mg/L)	BY-GSA-MW-5	0.1679	24	68	No	18	5.556	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	1.548	45	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0	0	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.07308	-27	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.02454	-6	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	-0.7242	-22	-68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-UP-MW-1 (bg)**	**3.147**	**72**	**68**	**Yes**	**18**	**5.556**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-UP-MW-2 (bg)	1.703	57	68	No	18	11.11	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	1.36	45	68	No	18	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-UP-MW-4 (bg)**	**3.695**	**95**	**68**	**Yes**	**18**	**22.22**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-GSA-MW-5	0.6798	5	68	No	18	5.556	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-6.309	-28	-68	No	18	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-1 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = -19
critical = -68

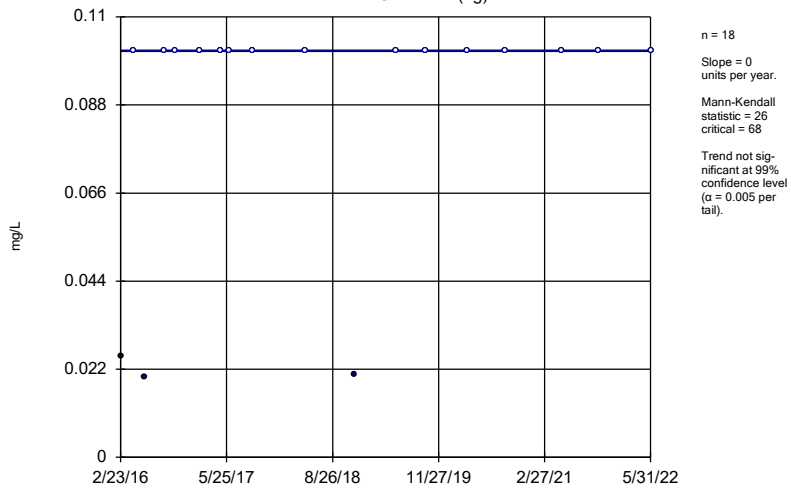
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-2 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 26
critical = 68

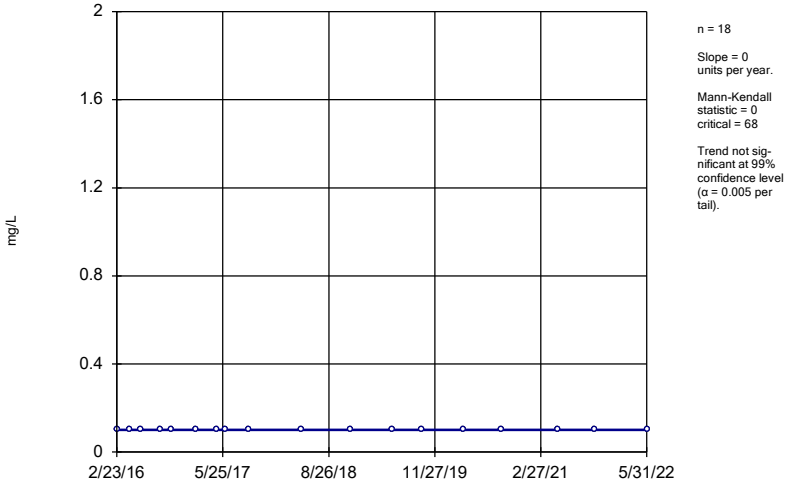
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-3 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 68

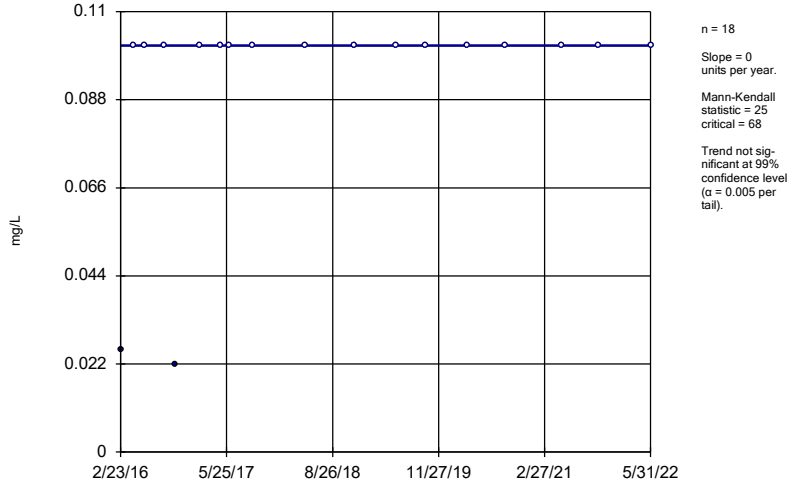
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 25
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

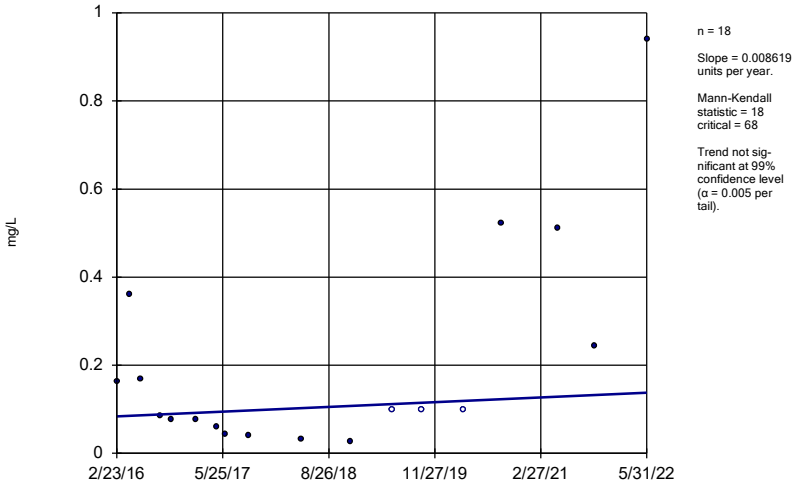
Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-5



n = 18

Slope = 0.008619 units per year.

Mann-Kendall statistic = 18
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

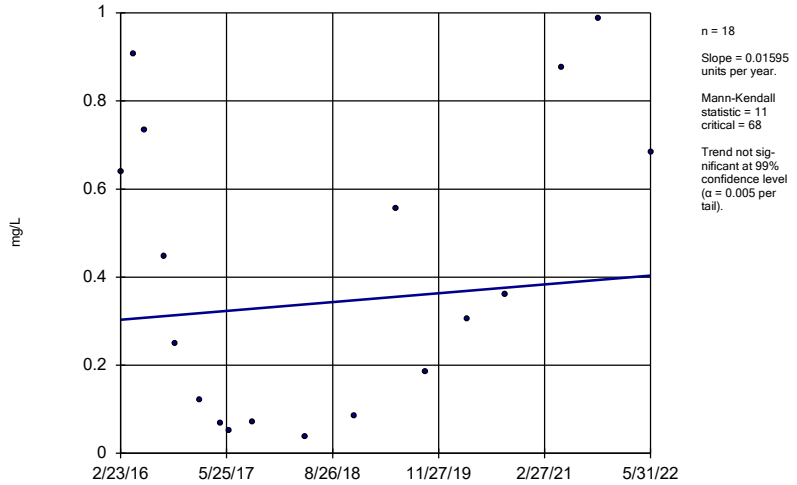
Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 18

Slope = 0.01595 units per year.

Mann-Kendall statistic = 11
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

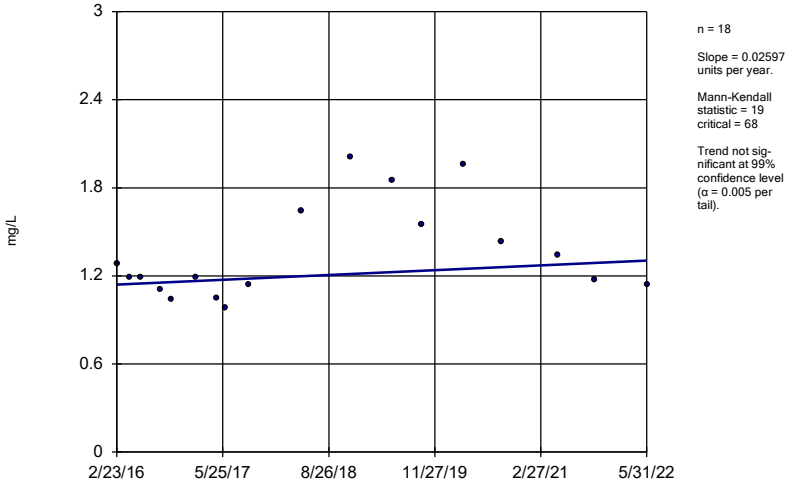
Constituent: Boron Analysis Run 7/26/2022 10:36 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-1 (bg)



n = 18

Slope = 0.02597 units per year.

Mann-Kendall statistic = 19
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

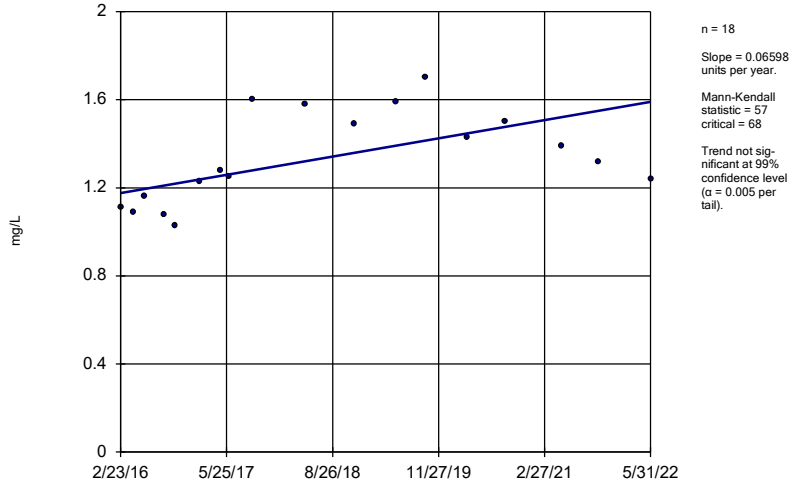
Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-2 (bg)



n = 18

Slope = 0.06598 units per year.

Mann-Kendall statistic = 57
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

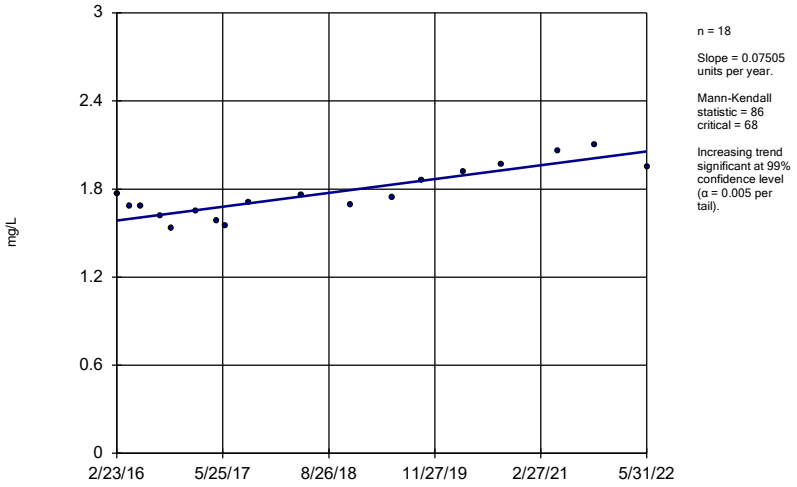
Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-3 (bg)



n = 18

Slope = 0.07505 units per year.

Mann-Kendall statistic = 86
critical = 68

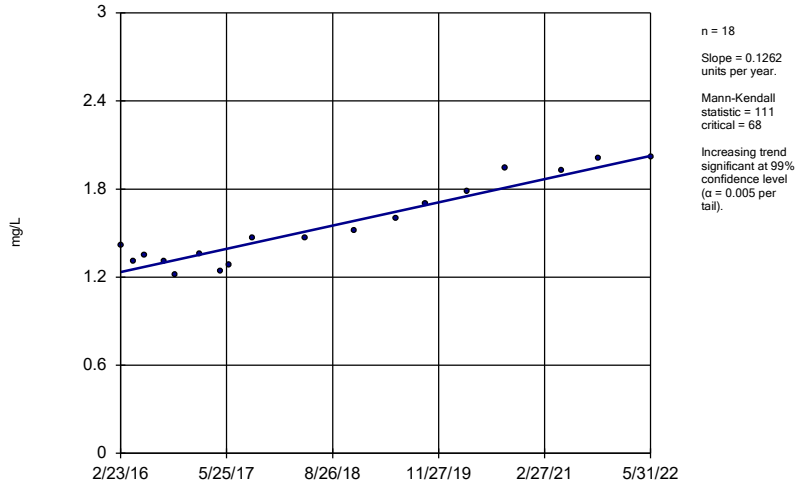
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 18

Slope = 0.1262 units per year.

Mann-Kendall statistic = 111
critical = 68

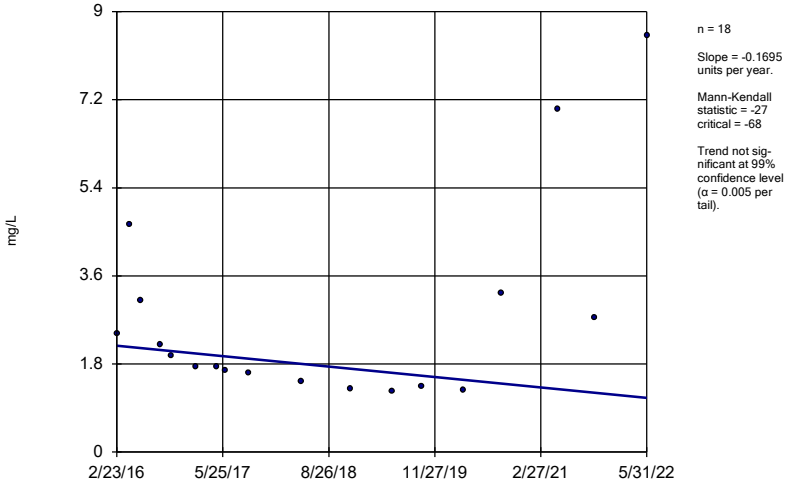
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-GSA-MW-5



n = 18

Slope = -0.1695 units per year.

Mann-Kendall statistic = -27
critical = -68

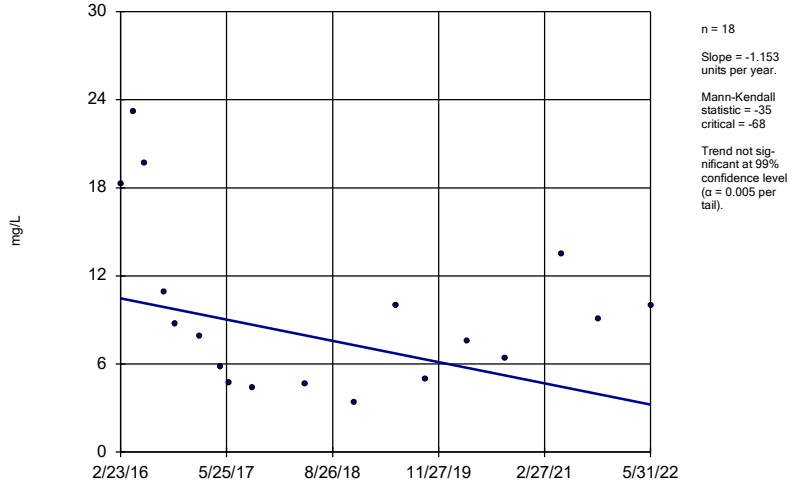
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 18

Slope = -1.153 units per year.

Mann-Kendall statistic = -35
critical = -68

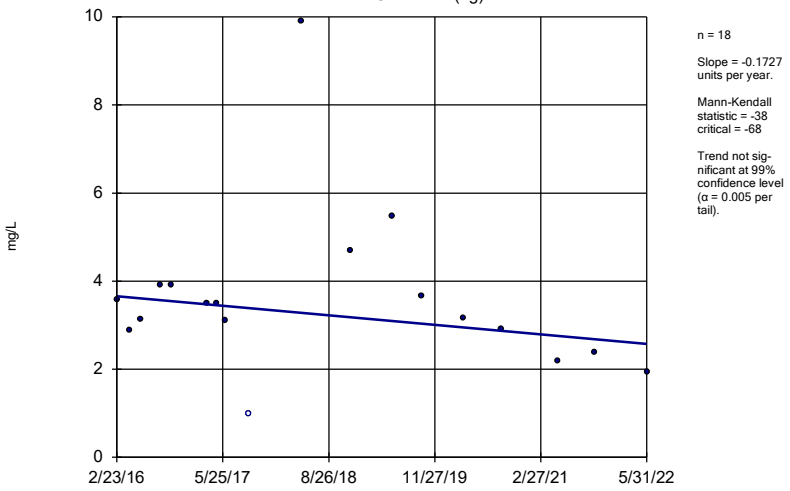
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-1 (bg)



n = 18

Slope = -0.1727 units per year.

Mann-Kendall statistic = -38
critical = -68

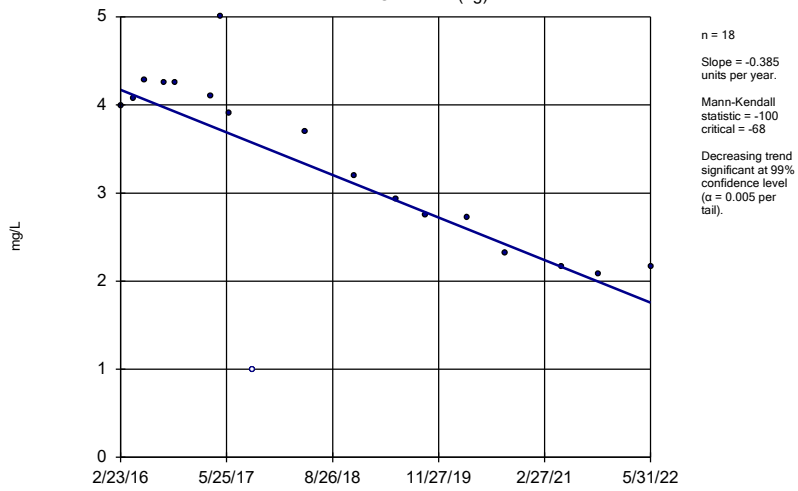
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-2 (bg)



n = 18

Slope = -0.385 units per year.

Mann-Kendall statistic = -100
critical = -68

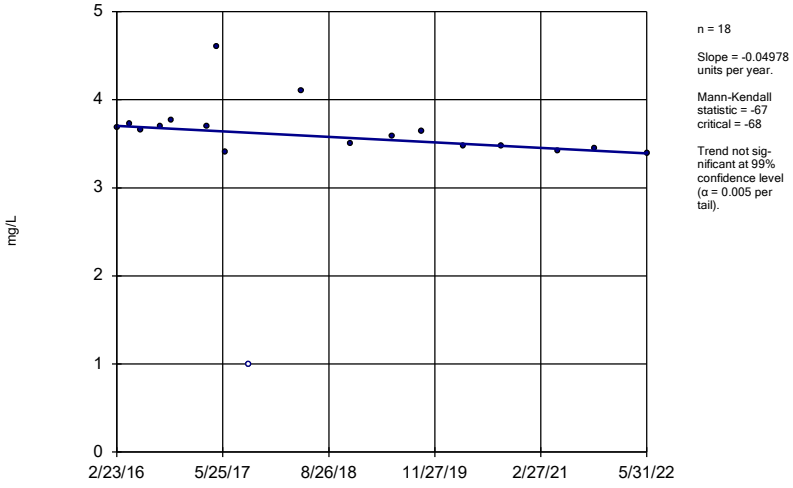
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-3 (bg)



n = 18

Slope = -0.04978 units per year.

Mann-Kendall statistic = -67
critical = -68

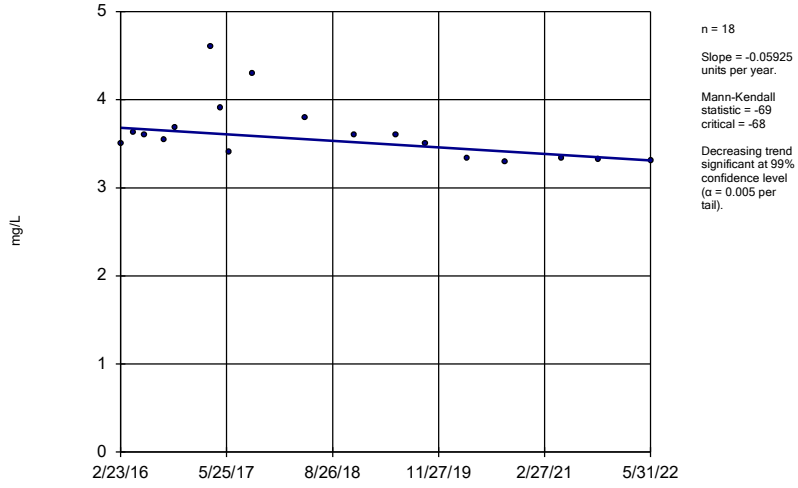
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 18

Slope = -0.05925 units per year.

Mann-Kendall statistic = -69
critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

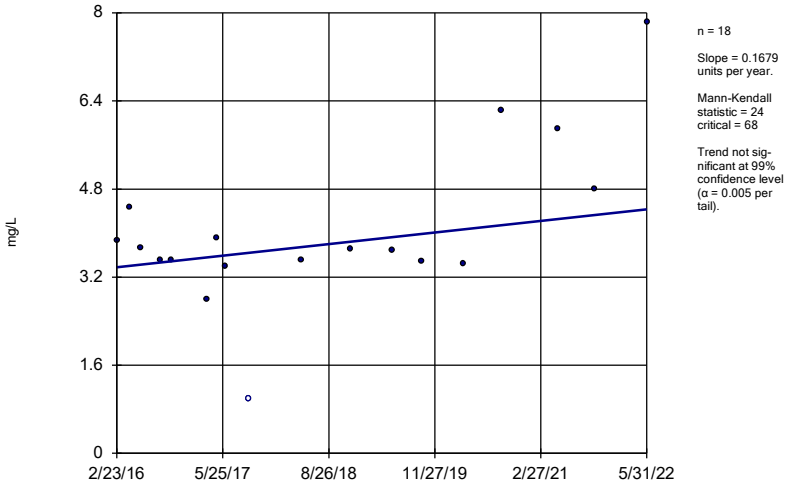
Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-5



n = 18

Slope = 0.1679 units per year.

Mann-Kendall statistic = 24
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

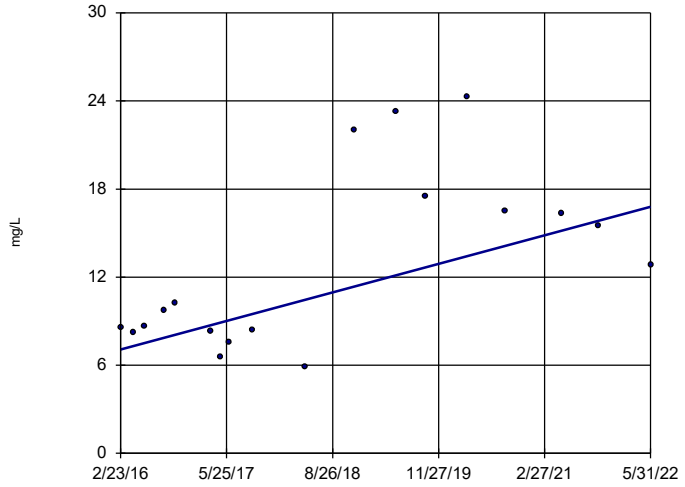
Constituent: Chloride, total Analysis Run 7/26/2022 10:36 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-1 (bg)



n = 18

Slope = 1.548 units per year.

Mann-Kendall statistic = 45
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

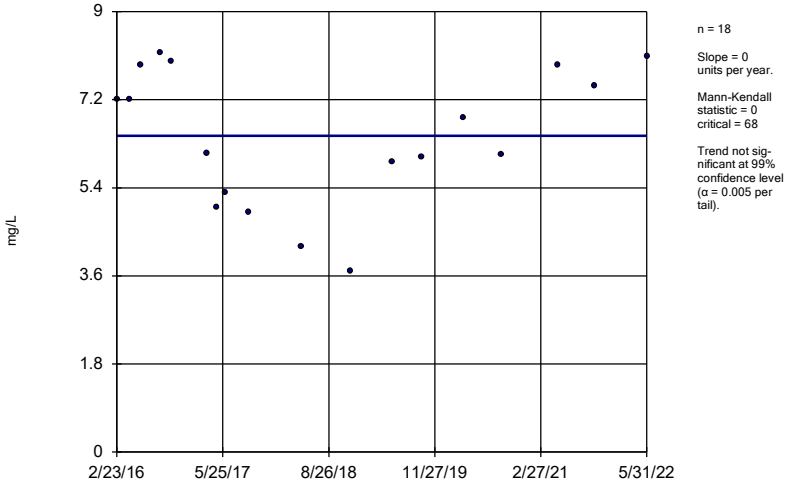
Constituent: Sulfate Analysis Run 7/26/2022 10:36 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-2 (bg)



n = 18

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

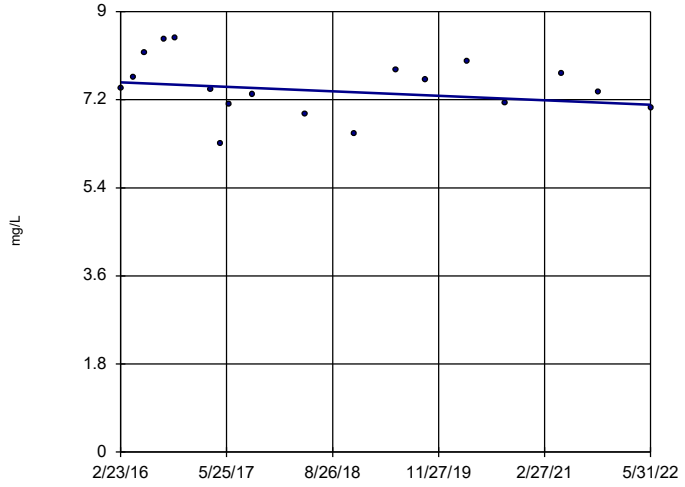
Constituent: Sulfate Analysis Run 7/26/2022 10:36 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-3 (bg)



n = 18

Slope = -0.07308 units per year.

Mann-Kendall statistic = -27
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

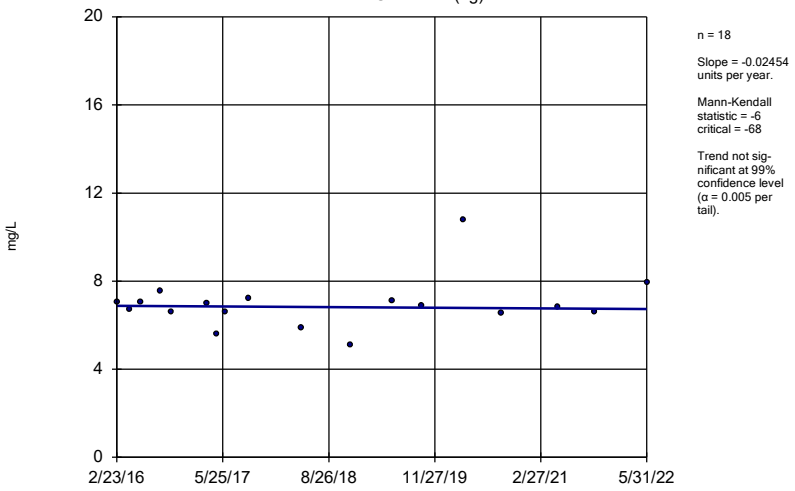
Constituent: Sulfate Analysis Run 7/26/2022 10:37 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 18

Slope = -0.02454 units per year.

Mann-Kendall statistic = -6
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

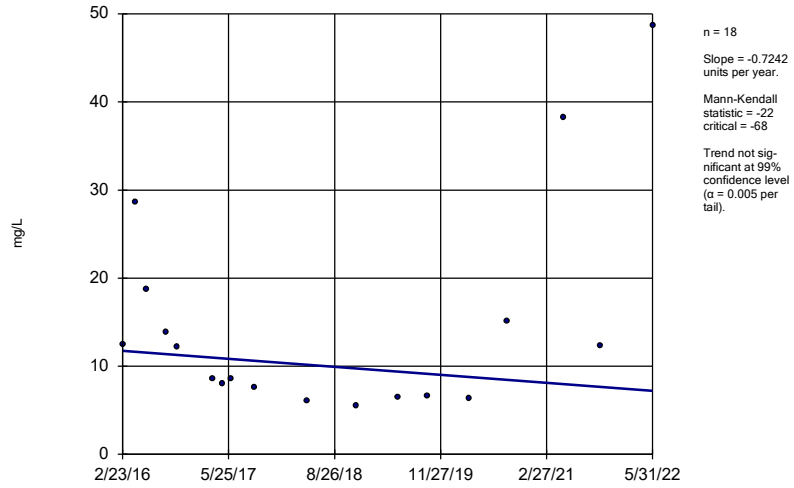
Constituent: Sulfate Analysis Run 7/26/2022 10:37 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-GSA-MW-5



n = 18

Slope = -0.7242 units per year.

Mann-Kendall statistic = -22
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 7/26/2022 10:37 PM View: Trend Tests

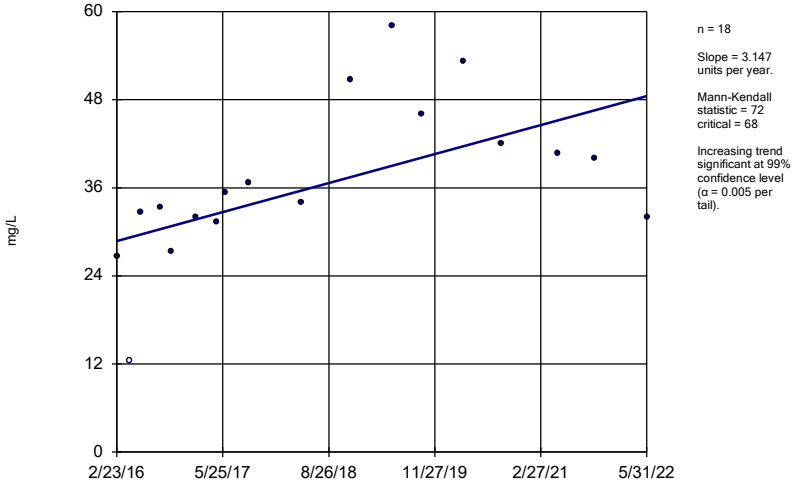
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-1 (bg)



n = 18

Slope = 3.147 units per year.

Mann-Kendall statistic = 72
critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests

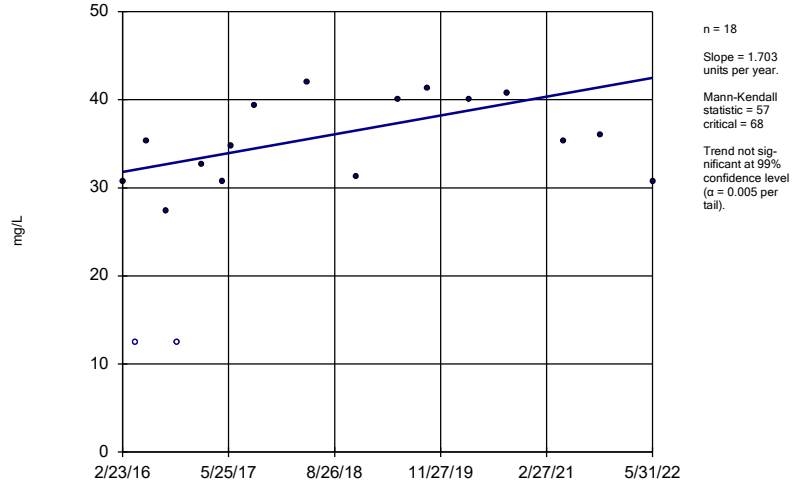
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-2 (bg)



n = 18

Slope = 1.703 units per year.

Mann-Kendall statistic = 57
critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

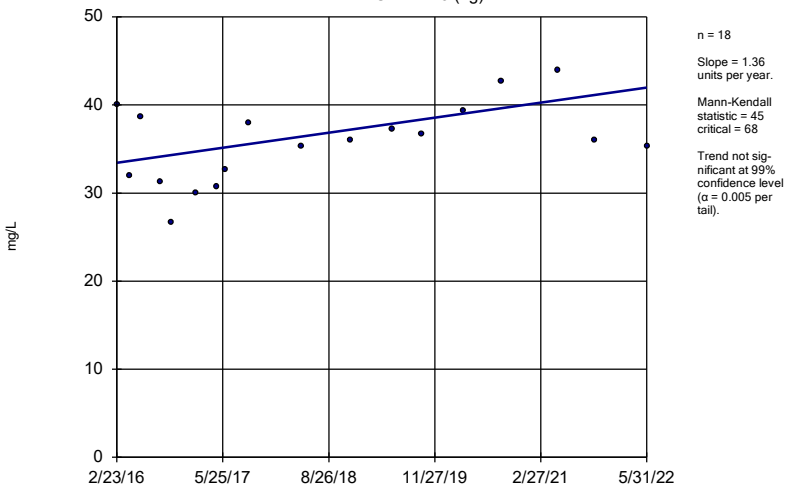
Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-UP-MW-3 (bg)



n = 18

Slope = 1.36 units per year.

Mann-Kendall statistic = 45 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests

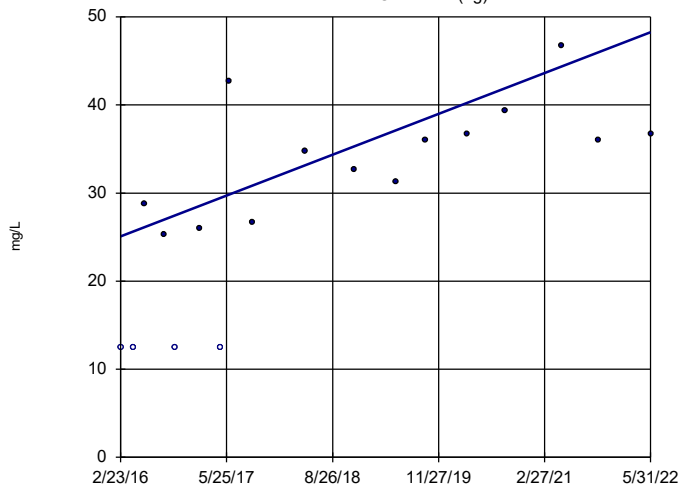
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-4 (bg)



n = 18

Slope = 3.695 units per year.

Mann-Kendall statistic = 95 critical = 68

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests

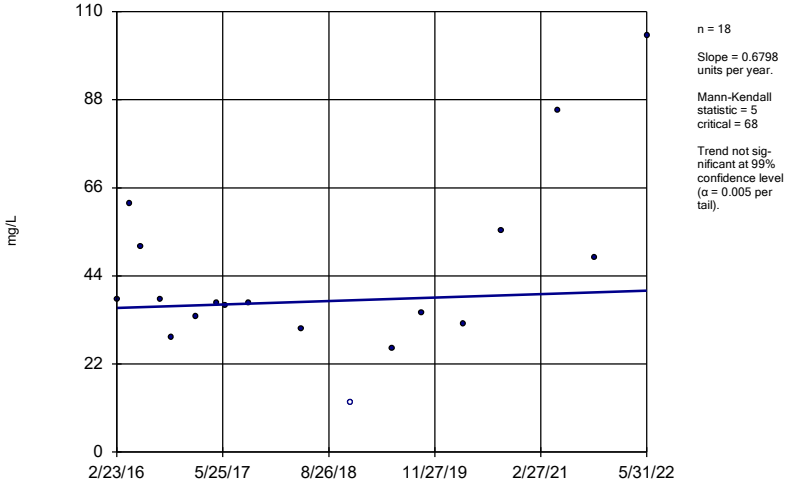
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-5



n = 18

Slope = 0.6798 units per year.

Mann-Kendall statistic = 5 critical = 68

Trend not significant at 99% confidence level (α = 0.005 per tail).

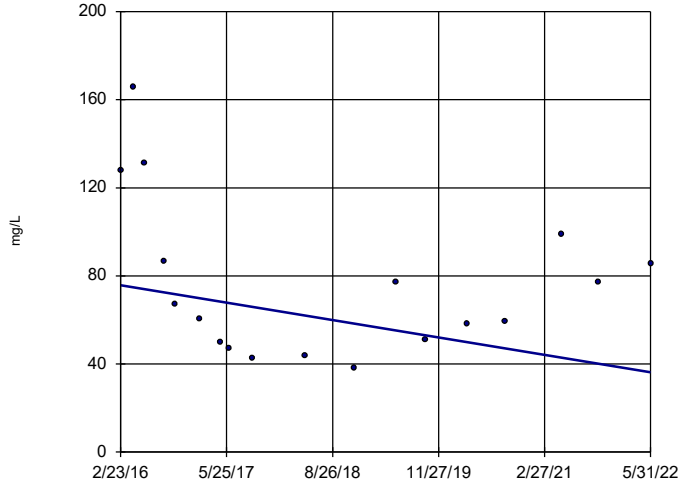
Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 18

Slope = -6.309 units per year.

Mann-Kendall statistic = -28 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 7/26/2022 10:37 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE G.

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

FIGURE H.

BARRY GYPSUM POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.00102	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.00102	0.004
Cadmium	mg/L	0.0002	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.0002	0.1
Selenium	mg/L	0.00102	0.05
Thallium	mg/L	0.0002	0.002

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.

4. GWPS established during second semi-annual sampling event in 2021.

FIGURE I.

Confidence Interval Summary Table - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/26/2022, 10:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-GSA-MW-10	0.0002	0.00009	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.00053	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.000821	0.0002	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-7	0.00024	0.000177	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-8	0.0002	0.00016	0.01	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.0002	0.0001	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-PZ-11	0.0002	0.000111	0.01	No	5	60	No	0.031	NP (normality)
Barium (mg/L)	BY-GSA-MW-10	0.1332	0.1148	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.226	0.0684	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.1825	0.08783	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.09037	0.04733	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.04899	0.04121	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1737	0.146	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08233	0.03831	2	No	5	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.00066	0.004	No	8	75	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-7	0.00102	0.000464	0.004	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.001	0.0000867	0.005	No	8	62.5	No	0.004	NP (normality)
Cadmium (mg/L)	BY-GSA-MW-6	0.001	0.00011	0.005	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-10	0.01	0.000695	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.00221	0.1	No	8	50	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-6	0.01	0.00223	0.1	No	8	25	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-7	0.01	0.00131	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-8	0.01	0.00209	0.1	No	8	12.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-9	0.01	0.000783	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003411	0.002233	0.1	No	5	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002657	0.002223	0.006	No	8	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.00606	0.00217	0.006	No	8	50	No	0.004	NP (Cohens/xfrm)
Cobalt (mg/L)	BY-GSA-MW-6	0.006267	0.00304	0.006	No	8	25	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000437	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.00131	0.006	No	8	62.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	5	40	No	0.031	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.163	0.8366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.309	0.4039	5	No	8	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.368	0.7306	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.202	0.03543	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.412	0.2366	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.72	5	No	8	0	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.274	0.3067	5	No	5	0	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.125	0.08	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.125	0.0591	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.125	0.07	4	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.005	0.0001	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.005	0.0000994	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-6	0.005	0.00011	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.005	0.0000798	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.005	0.00023	0.015	No	8	62.5	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.005	0.00012	0.015	No	5	40	No	0.031	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	87.5	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.0002	0.0001	0.1	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.0002	0.00008	0.1	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.00125	0.000778	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-5	0.0217	0.00102	0.05	No	8	50	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-6	0.01143	0.003687	0.05	No	8	0	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.00102	0.00058	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.00102	0.00052	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.00204	0.00102	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.001376	0.0007653	0.05	No	5	40	No	0.01	Param.

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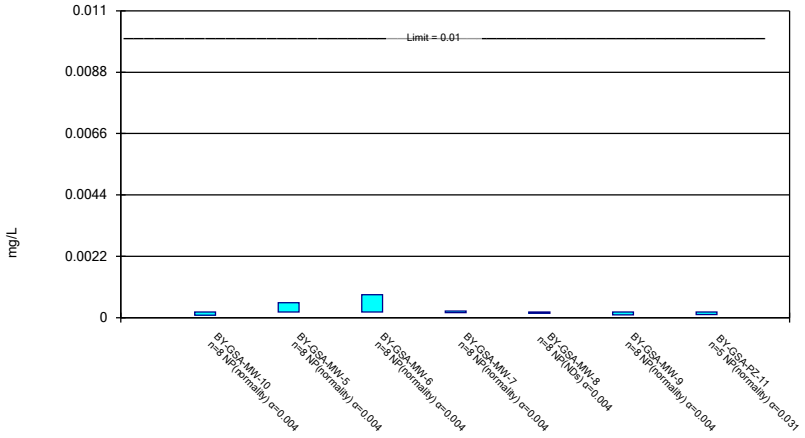
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



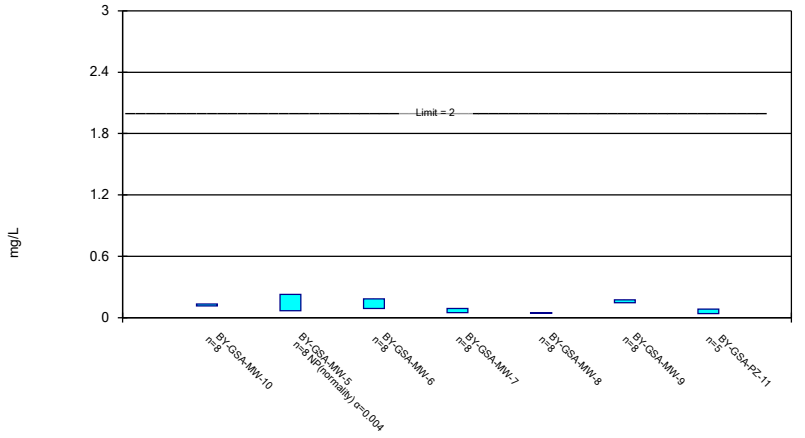
Constituent: Arsenic Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . 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.



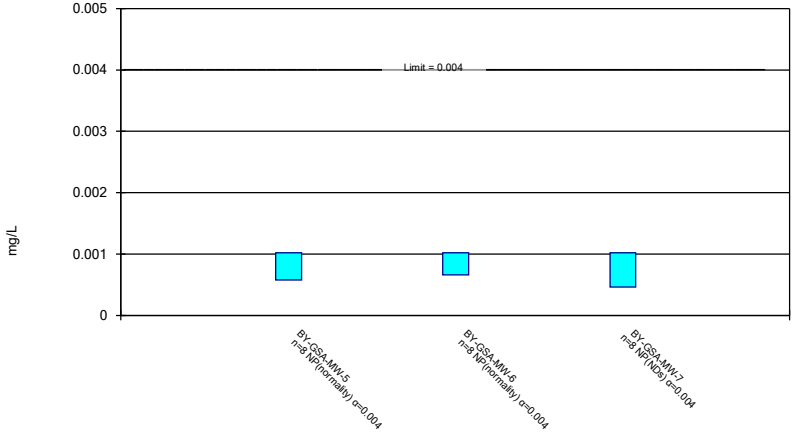
Constituent: Barium Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



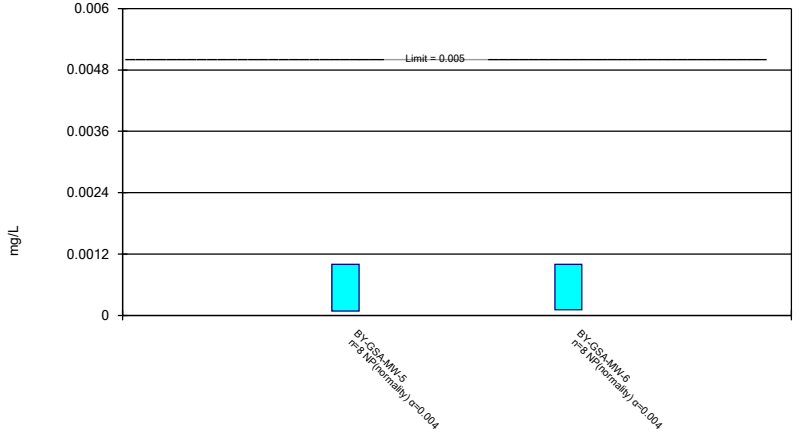
Constituent: Beryllium Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



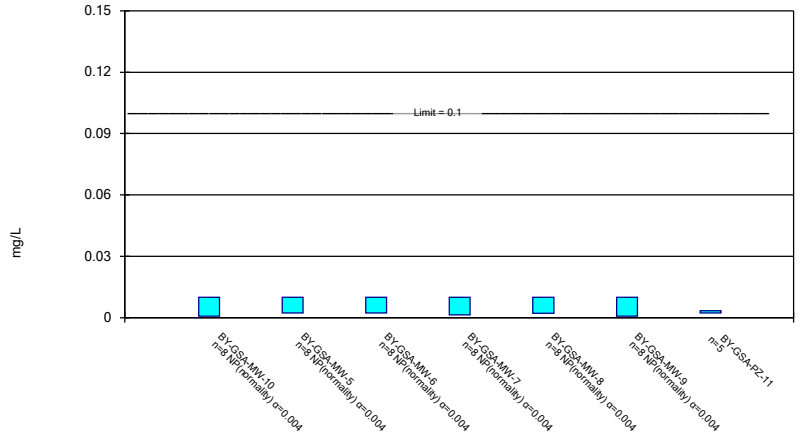
Constituent: Cadmium Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . 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.



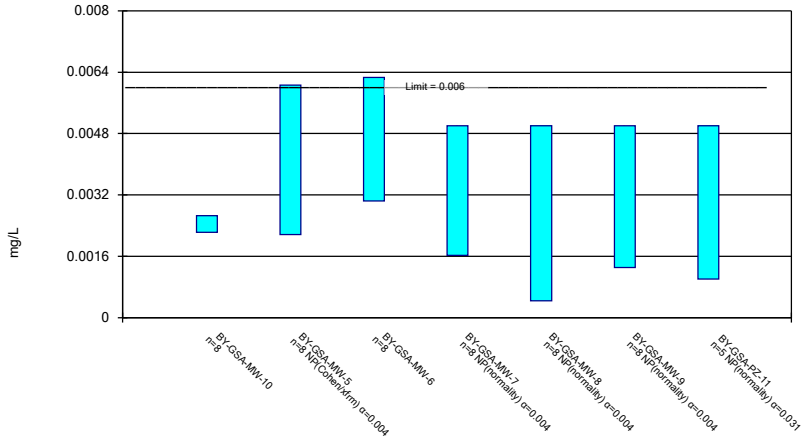
Constituent: Chromium Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . 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.



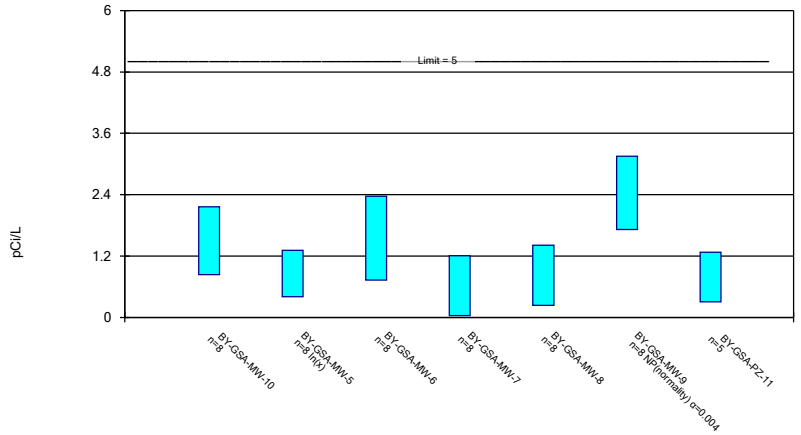
Constituent: Cobalt Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . 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.



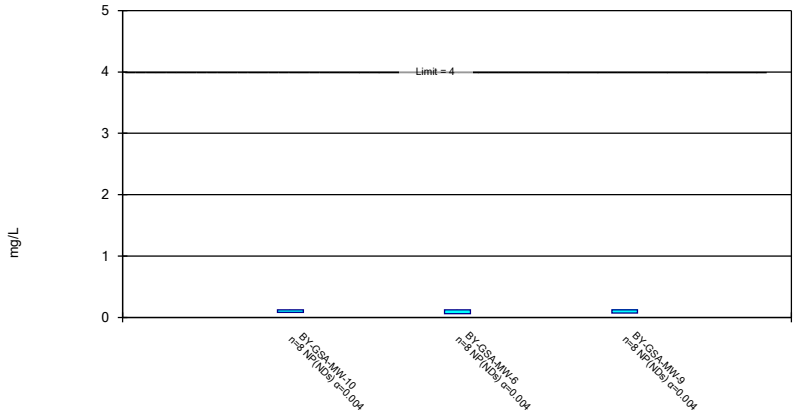
Constituent: Combined Radium 226 + 228 Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



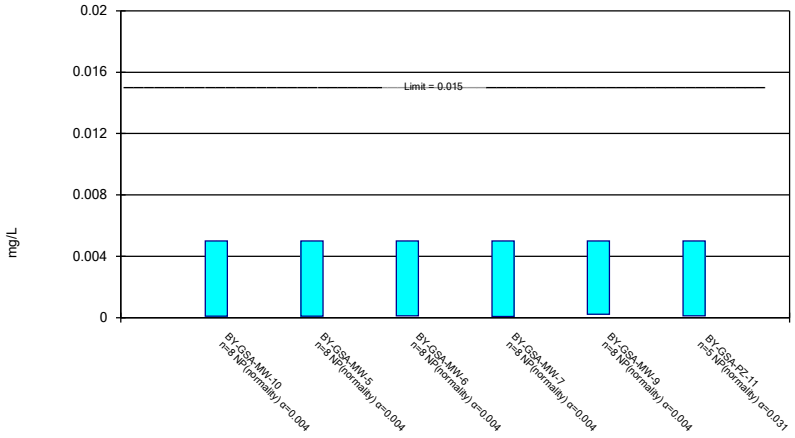
Constituent: Fluoride Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



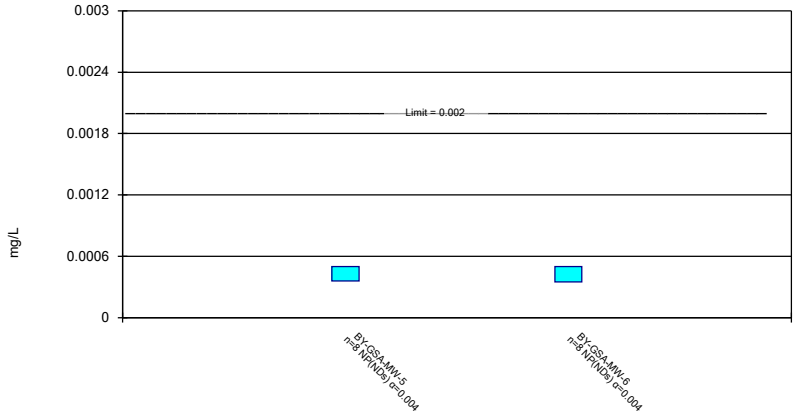
Constituent: Lead Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



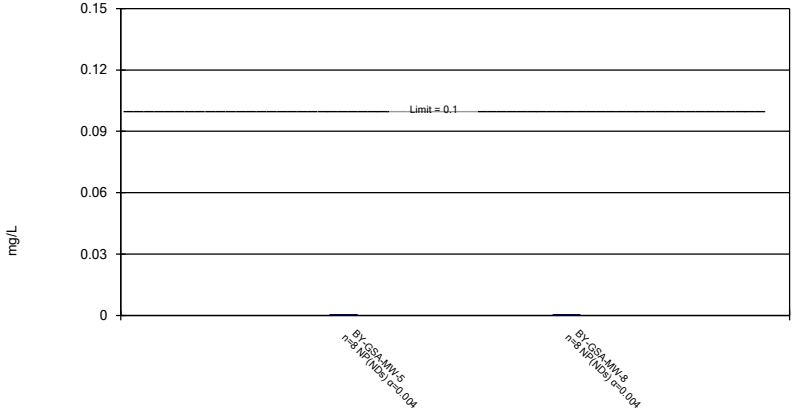
Constituent: Mercury Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



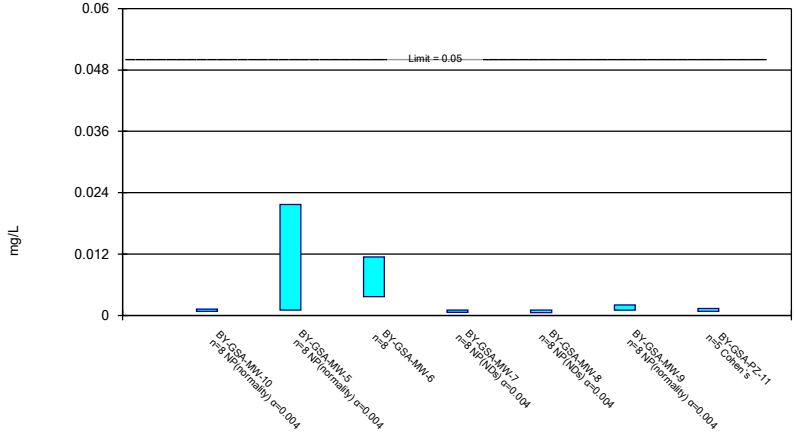
Constituent: Molybdenum Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.35 . 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: Selenium Analysis Run 7/26/2022 10:48 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.0002		<0.0002			<0.0002	
11/27/2018		<0.0002		<0.0002	<0.0002		
5/28/2019		<0.0002	<0.0002	<0.0002	<0.0002		
5/29/2019	<0.0002					<0.0002	
10/2/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
3/30/2020		<0.0002	<0.0002	<0.0002	<0.0002		
3/31/2020	<0.0002					<0.0002	<0.0002
9/8/2020		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
9/9/2020	<0.0002					<0.0002	
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.0002	0.000173 (J)	0.000111 (J)
10/18/2021			0.00032	0.00023			
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.0002	0.00013 (J)
5/31/2022		0.00053	0.00052				
6/1/2022	9E-05 (J)			0.00024	<0.0002	0.0001 (J)	<0.0002
Mean	0.0001686	0.0002789	0.0003326	0.0002059	0.000195	0.0001841	0.0001682
Std. Dev.	4.499E-05	0.0001463	0.0002273	1.983E-05	1.414E-05	3.528E-05	4.406E-05
Upper Lim.	0.0002	0.00053	0.000821	0.00024	0.0002	0.0002	0.0002
Lower Lim.	9E-05	0.0002	0.0002	0.000177	0.00016	0.0001	0.000111

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	0.112		0.0657			0.152	
11/27/2018		0.072		0.0427	0.0388		
5/28/2019		0.0684	0.17	0.0524	0.0412		
5/29/2019	0.125					0.155	
10/2/2019	0.136	0.0728	0.0985	0.0492	0.0453	0.16	
3/30/2020		0.0718	0.142	0.0788	0.0444		
3/31/2020	0.122					0.165	0.0499
9/8/2020		0.181	0.0981	0.0615	0.0494		0.05
9/9/2020	0.125					0.17	
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184	0.0597
10/18/2021			0.146	0.0859			
10/19/2021	0.115	0.0998			0.0452	0.151	0.0599
5/31/2022		0.226	0.202				
6/1/2022	0.136			0.0803	0.0477	0.142	0.0821
Mean	0.124	0.1122	0.1352	0.06885	0.0451	0.1599	0.06032
Std. Dev.	0.008685	0.05928	0.04465	0.0203	0.003672	0.01307	0.01313
Upper Lim.	0.1332	0.226	0.1825	0.09037	0.04899	0.1737	0.08233
Lower Lim.	0.1148	0.0684	0.08783	0.04733	0.04121	0.146	0.03831

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7
11/26/2018		<0.00102	
11/27/2018	<0.00102		<0.00102
5/28/2019	<0.00102	<0.00102	<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102
3/30/2020	<0.00102	<0.00102	<0.00102
9/8/2020	<0.00102	<0.00102	<0.00102
5/12/2021	0.000575 (J)	0.000763 (J)	0.000464 (J)
10/18/2021		<0.00102	<0.00102
10/19/2021	<0.00102		
5/31/2022	0.00071 (J)	0.00066 (J)	
6/1/2022			<0.00102
Mean	0.0009256	0.0009429	0.0009505
Std. Dev.	0.0001784	0.0001454	0.0001966
Upper Lim.	0.00102	0.00102	0.00102
Lower Lim.	0.000575	0.00066	0.000464

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
11/26/2018		<0.001
11/27/2018	<0.001	
5/28/2019	<0.001	<0.001
10/2/2019	<0.001	<0.001
3/30/2020	<0.001	<0.001
9/8/2020	<0.001	<0.001
5/12/2021	8.67E-05 (J)	0.000154 (J)
10/18/2021		0.00011 (J)
10/19/2021	0.00014 (J)	
5/31/2022	0.00012 (J)	0.00023
Mean	0.0006683	0.0006868
Std. Dev.	0.000458	0.0004335
Upper Lim.	0.001	0.001
Lower Lim.	8.67E-05	0.00011

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.01		<0.01			<0.01	
11/27/2018		<0.01		<0.01	<0.01		
5/28/2019		<0.01	0.00223 (J)	<0.01	0.00209 (J)		
5/29/2019	<0.01					<0.01	
10/2/2019	<0.01	<0.01	<0.01	<0.01	0.00223 (J)	<0.01	
3/30/2020		<0.01	0.00273 (J)	<0.01	0.00275 (J)		
3/31/2020	<0.01					<0.01	0.00249 (J)
9/8/2020		0.00221 (J)	0.00237 (J)	<0.01	0.00224 (J)		0.00253 (J)
9/9/2020	<0.01					<0.01	
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)	0.00281
10/18/2021			0.00335	0.00131			
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)	0.00336
5/31/2022		0.00281	0.00412				
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104	0.00292
Mean	0.006547	0.006252	0.004775	0.006784	0.003276	0.006579	0.002822
Std. Dev.	0.004766	0.004011	0.003282	0.004439	0.002725	0.004722	0.0003517
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.003411
Lower Lim.	0.000695	0.00221	0.00223	0.00131	0.00209	0.000783	0.002233

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	0.00205 (J)		<0.005			<0.005	
11/27/2018		<0.005		<0.005	<0.005		
5/28/2019		<0.005	0.00301 (J)	<0.005	<0.005		
5/29/2019	0.00261 (J)					<0.005	
10/2/2019	0.00262 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005		
3/31/2020	0.00238 (J)					<0.005	<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005		<0.005
9/9/2020	0.00241 (J)					<0.005	
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177	0.00101
10/18/2021			0.00552	0.00164			
10/19/2021	0.00238	0.00217			0.00049	0.00156	0.00117
5/31/2022		0.00606	0.00724				
6/1/2022	0.0027			0.00162	0.00048	0.00131	0.00143
Mean	0.00244	0.004387	0.004654	0.003772	0.003301	0.003705	0.002722
Std. Dev.	0.0002049	0.001401	0.001522	0.001696	0.002345	0.001792	0.002085
Upper Lim.	0.002657	0.00606	0.006267	0.005	0.005	0.005	0.005
Lower Lim.	0.002223	0.00217	0.00304	0.00162	0.000437	0.00131	0.00101

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	1.04		0.815			1.72	
11/27/2018		0.611		0.109 (U)	0.691		
5/28/2019		0.391 (U)	2.08	-0.428 (U)	0.311 (U)		
5/29/2019	0.548 (U)					2.2	
10/2/2019	2.19	0.954	0.836	0.43 (U)	0.969	2	
3/30/2020		0.525	1.54	0.939	0.397 (U)		
3/31/2020	1.01					1.88	0.968
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)		0.468 (U)
9/9/2020	1.32					2.11	
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94	0.515 (U)
10/18/2021			2.03	0.69 (U)			
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15	0.87 (U)
5/31/2022		2.31	2.22				
6/1/2022	2.27			0.99	1.37	2.05	1.13
Mean	1.5	0.8525	1.549	0.6188	0.8241	2.131	0.7902
Std. Dev.	0.6256	0.6189	0.7723	0.5503	0.5543	0.4368	0.2885
Upper Lim.	2.163	1.309	2.368	1.202	1.412	3.15	1.274
Lower Lim.	0.8366	0.4039	0.7306	0.03543	0.2366	1.72	0.3067

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-6	BY-GSA-MW-9
11/26/2018	0.08 (J)	<0.125	0.07 (J)
5/28/2019		0.0591 (J)	
5/29/2019	<0.125		<0.125
10/2/2019	<0.125	<0.125	<0.125
3/30/2020		<0.125	
3/31/2020	<0.125		<0.125
9/8/2020		<0.125	
9/9/2020	<0.125		<0.125
5/12/2021	<0.125	<0.125	<0.125
10/18/2021		<0.125	
10/19/2021	<0.125		<0.125
5/31/2022		<0.125	
6/1/2022	<0.125		<0.125
Mean	0.1194	0.1168	0.1181
Std. Dev.	0.01591	0.0233	0.01945
Upper Lim.	0.125	0.125	0.125
Lower Lim.	0.08	0.0591	0.07

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.005		<0.005		<0.005	
11/27/2018		<0.005		<0.005		
5/28/2019		<0.005	<0.005	<0.005		
5/29/2019	<0.005				<0.005	
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.005	
3/30/2020		<0.005	<0.005	<0.005		
3/31/2020	<0.005				<0.005	<0.005
9/8/2020		<0.005	<0.005	<0.005		<0.005
9/9/2020	<0.005				<0.005	
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	0.000288	0.000208
10/18/2021			0.00011 (J)	8E-05 (J)		
10/19/2021	0.0001 (J)	0.00026			0.00025	0.00014 (J)
5/31/2022		0.00018 (J)	0.00011 (J)			
6/1/2022	0.0001 (J)			8E-05 (J)	0.00023	0.00012 (J)
Mean	0.003164	0.003192	0.003179	0.003155	0.003221	0.002094
Std. Dev.	0.002534	0.002495	0.002513	0.002546	0.002455	0.002653
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0001	9.94E-05	0.00011	7.98E-05	0.00023	0.00012

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
11/26/2018		<0.0005
11/27/2018	<0.0005	
5/28/2019	<0.0005	<0.0005
10/2/2019	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005
9/8/2020	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005
10/18/2021		<0.0005
10/19/2021	<0.0005	
5/31/2022	0.00036 (J)	0.00035 (J)
Mean	0.0004825	0.0004813
Std. Dev.	4.95E-05	5.303E-05
Upper Lim.	0.0005	0.0005
Lower Lim.	0.00036	0.00035

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-8
11/27/2018	<0.0002	<0.0002
5/28/2019	<0.0002	<0.0002
10/2/2019	<0.0002	<0.0002
3/30/2020	<0.0002	<0.0002
9/8/2020	<0.0002	<0.0002
5/12/2021	<0.0002	<0.0002
10/19/2021	0.0001 (J)	8E-05 (J)
5/31/2022	<0.0002	
6/1/2022		<0.0002
Mean	0.0001875	0.000185
Std. Dev.	3.536E-05	4.243E-05
Upper Lim.	0.0002	0.0002
Lower Lim.	0.0001	8E-05

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 7/26/2022 10:49 PM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
11/26/2018	<0.00102		0.00286 (J)			<0.00102	
11/27/2018		<0.00102		<0.00102	<0.00102		
5/28/2019		<0.00102	0.0089 (J)	<0.00102	<0.00102		
5/29/2019	<0.00102					<0.00102	
10/2/2019	<0.00102	<0.00102	0.00472 (J)	<0.00102	<0.00102	<0.00102	
3/30/2020		<0.00102	0.00658 (J)	<0.00102	<0.00102		
3/31/2020	<0.00102					<0.00102	<0.00102
9/8/2020		0.0052 (J)	0.0052 (J)	<0.00102	<0.00102		<0.00102
9/9/2020	<0.00102					<0.00102	
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.00102	<0.00102	0.00128	0.00111
10/18/2021			0.00672	<0.00102			
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118	0.00114
5/31/2022		0.0217	0.0132				
6/1/2022	0.00125			0.00058 (J)	<0.00102	0.00204	0.00132
Mean	0.0009947	0.006272	0.00756	0.000965	0.0009575	0.0012	0.001122
Std. Dev.	0.0001427	0.008119	0.003654	0.0001556	0.0001768	0.0003534	0.000123
Upper Lim.	0.00125	0.0217	0.01143	0.00102	0.00102	0.00204	0.001376
Lower Lim.	0.000778	0.00102	0.003687	0.00058	0.00052	0.00102	0.0007653