2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ALABAMA POWER COMPANY
PLANT BARRY
GYPSUM POND

January 31, 2021

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering

Alabama Power

CERTIFICATION STATEMENT

This *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.

1/31/2021

Robert F. Singleton, III — Date

Geologist

1/31/2021

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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2020 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2020 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.

The following summarizes results and activities conducted during the first semi-annual monitoring period of 2020:

- Submitted the revised Groundwater Monitoring Plan on April 15, 2020, responded to ADEM comments, and resubmitted the Groundwater Monitoring Plan on August 24, 2020.
- Submitted 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report on July 31, 2020.
- Statistically significant levels (SSL) of Appendix IV parameters were not identified during the 2020 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.
- Pursuant to 40 CFR 257.90(e)(6), Executive Summary Table – Monitoring Period Summary describes the status of groundwater monitoring and corrective action during the monitoring period for this report.

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

- Continue semi-annual assessment monitoring in March or April 2021 and submit first semi-annual groundwater monitoring report of 2021 to the Department by July 31, 2021.

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

Assessment Monitoring Inintiated: January 15, 2018
Monitoring Period: January 1 - December 31, 2020
Beginning Status: Assessment
Ending Status: Assessment

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	BY-GSA-MW-6
Calcium	BY-GSA-MW-5, BY-GSA-MW-6
Chloride	BY-GSA-MW-5, BY-GSA-MW-7
Fluoride	None
pH	BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9
Sulfate	BY-GSA-MW-9
TDS	BY-GSA-MW-6

Appendix IV SSLs

None

* 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

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

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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
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, this 2020 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2020 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 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.

2.1 SITE GEOLOGY AND HYDROGEOLOGY

2.1.1 Physical Setting

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is 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). 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.

2.1.2 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).

2.1.3 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.

2.1.4 Flow Interpretation

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations 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.

2.2 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The certified groundwater monitoring system for the Plant Barry Gypsum Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps. Monitoring wells were screened in the Watercourse Aquifer. The Watercourse Aquifer is composed of Quaternary alluvial and low terrace deposits consisting of interbedded sand, gravel, and clay (USGS, 1988). The monitoring systems are designed to monitor water quality as groundwater flows laterally from south to north across the site. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers,” ASTM Subcommittee D18.21, as a guideline.

2.2.1 Monitoring Wells

The 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 1, Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Barry Gypsum Pond.

2.2.1.1 Upgradient Wells

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

2.2.1.2 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. 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.

2.2.1.3 Piezometers

Location BY-GSA-PZ-12 is used as a water level-only piezometer to enhance groundwater potentiometric surfaces and constrain flow direction.

2.2.1.4 Monitoring Variance

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

1. Retains boron as an Appendix III detection monitoring parameter and excludes it as an Appendix IV assessment monitoring parameter.

2. Authorizes the use of Federally-published 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.

2.2.2 Groundwater Monitoring History

Background samples were collected over the period of February 2016 to June 2017. Semi-annual groundwater monitoring was initiated at the Gypsum Pond in September 2017.

2.2.2.1 Available Monitoring Data

In accordance with § 257.94(b) and ADEM Admin. Code r. 335-13-15-.06(5)(b), eight 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 January 2018, within 90 days of initiating the assessment monitoring program. Semi-annual assessment sampling has continued to date.

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

2.2.2.2 Historical Groundwater Flow

Historical potentiometric data from the site show that groundwater flow generally is a subdued representation of topography. Groundwater flows from south to north across the site. East of the Gypsum Pond, groundwater flow bends towards the northeast and the Plant Barry discharge canal.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 3 to 4 feet are typical at the site. These fluctuations are consistent in monitoring wells across the site, indicating a uniform response to rainfall events. Groundwater elevation data indicate that water levels tend to be higher in the early spring and lower during the fall and winter seasons.

2.2.3 Groundwater Sampling and Analysis

The Site entered an Assessment Monitoring program pursuant to § 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.

2.2.3.1 Sampling Event Summary

Semi-annual Assessment Monitoring sampling occurred in March 2020 and September 2020. Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during each Assessment Monitoring event. Analytical data from the groundwater monitoring events is included as **Appendix B, Laboratory and Field Records**, in accordance with the requirements of § 257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

2.2.3.2 Groundwater Sample Collection

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

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with § 257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant Barry are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures. In this procedure, samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) are measured to determine stabilization. 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 events are included in **Appendix B**.

2.2.3.3 Sample Preservation and Handling

Groundwater samples were collected with 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.

2.2.3.4 Chain of Custody

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

2.2.3.5 Laboratory Analysis

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama or Eurofins TestAmerica (TAL) of Pensacola, Florida and St. Louis, Missouri. Both APCEL and TAL are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed**. Table 2, Monitoring Parameters and Reporting Limits**, lists Assessment Monitoring constituents analyzed at the Site. Groundwater data and chain of custody records for the monitoring events are presented in **Appendix B**.

3.0 GROUNDWATER DATA EVALUATION

3.1 GROUNDWATER ELEVATION AND FLOW

During the March 2020 sampling event, depths to water ranged from 6.15 to 27.15 feet below top of casing and groundwater elevations ranged from 8.54 to 6.70 feet above mean sea level (ft MSL). During the September 2020 sampling event, depths to water ranged from 3.54 to 5.83 ft MSL. **Figure 6A, Potentiometric Surface Contour Map (March 30, 2020)** and **Figure 6B, Potentiometric Surface Contour Map (September 8, 2020)** depict groundwater elevations and inferred groundwater flow direction from higher elevation to lower. As shown on **Figures 6A** and **6B**, groundwater flows from south to north across the Site, consistent with previous events. All available groundwater elevation data recorded since 2016 have been tabulated and included in **Table 3, Groundwater Elevations Summary.**

3.2 HORIZONTAL GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity, pump 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 is in good agreement with long duration pump testing of the Watercourse Aquifer that revealed an average hydraulic conductivity of $3.3\ x10^{-3}$ cm/sec. The hydraulic gradient was calculated between well pairs shown on **Table 4, Horizontal Groundwater Flow Velocity Calculation**. The pumping test-derived hydraulic conductivity value of 3.3×10^{-3} cm/sec or 9.4 ft/day was used because the larger volume of aquifer allows averaging of small-scale heterogeneities, 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 various areas of the site and is tabulated on **Table 4**. **Table 4** presents the horizontal flow velocity calculated using groundwater elevation data from the comprehensive gauging sampling events conducted on March 30, 2020 and September 8, 2020.

4.0 EVALUATION OF GROUNDWATER QUALITY DATA

4.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of 1 sample per every group of 10 well samples. Equipment blanks and field blanks were also collected during each sampling event.

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

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

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where the relative percent differences are below 20%, the difference is considered acceptable and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 5, Relative Percent Difference Calculations,** provides the relative percent differences for sample and sample duplicates during the first and second sampling events of 2020. All RPDs were below 20% for the 2020 sampling events. Equipment blanks and field blanks were all non-detect for the 2020 sampling events. Therefore, no data validation qualifiers were applied to data received.

4.2 STATISTICAL METHODOLOGY AND TESTS

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

4.2.1 Appendix III Evaluation

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

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

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% and 50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data.
- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

4.2.2 Appendix IV Evaluation

When in assessment monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are 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. Appendix IV constituents will be updated every 2 years beginning with the most recent event (Fall 2019). The next update to GWPS will occur no earlier than the Fall of 2021. Data from upgradient wells collected in between updates may still be used to support ASDs if merited.

4.3 STATISTICAL EXCEEDANCES

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

4.3.1 Appendix III Constituents

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

- BY-GSA-MW-1: Sulfate.
- BY-GSA-MW-4: Sulfate.
- BY-GSA-MW-6: Boron, Calcium, pH.
- BY-GSA-MW-7: Chloride.
- BY-GSA-MW-9: Sulfate, pH.

BY-GSA-MW-1, listed above, is an upgradient well location. The SSI for sulfate in BY-GSA-MW-1 is representative of variable groundwater quality upgradient of the Site and not reflective of Site impacts to groundwater. Since the site is performing assessment monitoring, no further action is required regarding these SSIs.

During the second semi-annual monitoring event the following SSIs over background were identified:

- BY-GSA-MW-5: Chloride, Boron, Calcium.
- BY-GSA-MW-6: Boron, Calcium, pH, TDS.
- BY-GSA-MW-7: pH.
- BY-GSA-MW-8: pH.
- BY-GSA-MW-9: pH.

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

4.3.2 Appendix IV Constituents

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

A review of the Sanitas results presented in **Appendix C** did not identify Appendix IV SSLs above the GWPS during the first and second 2020 semi-annual monitoring events. **Table 7, First Semi-Annual Monitoring Event Analytical Summary**, and **Table 8, Second Semi-Annual Monitoring Event Analytical Summary**, provides a summary of all constituent concentrations for the 2020 semi-annual monitoring events. Statistical reporting output is included as **Appendix C.**

5.0 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 sampling events conducted since 2018. Since no SSLs of Appendix IV constituents were 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).

6.0 SUMMARY AND CONCLUSIONS

SSLs of Appendix IV parameters were not identified at the Plant Barry Gypsum Pond during the March and September 2020 semi-annual sampling events. Based on the results of statistical analysis presented herein, the Site remains in assessment monitoring. The following future actions will be taken or are recommended for the Site:

- Conduct a semi-annual assessment sampling event in the Spring 2021 and submit a semi-annual groundwater monitoring report summarizing findings by July 31, 2021.

7.0 REFERENCES

Alabama Department of Environmental Management (ADEM), 2018, Solid Waste Program, Division 13, ADEM Admin. Code r. 335-13-15.

ASTM Standard D5092, 2004(2010)e1, Standard Practice for Design and Installation of Groundwater Monitoring Wells, ASTM International, West Conshohocken, PA, DOI 10.1520/D5092-04R10E01, www.astm.org.

Chandler, R.V., Moore, J.D., and Gillet, B., 1985, Ground-water chemistry and salt-water encroachment, southern Baldwin County, Alabama: Alabama Geological Survey Bulletin 126, p. 166.

Davis, M.E., 1987, Stratigraphic and Hydrogeologic Framework of the Alabama Coastal Plain, U.S. Geological survey, Water-Resources Investigations Report 87-4112.

Gillet, B., Raymond, D.E., Moore, J.D., and Tew, B.H., 2000, Hydrogeology and Vulnerability to Contamination of Major Aquifers in Alabama: Area 13, Geological Survey of Alabama.

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance.

USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule.* [EPA-HQ-RCRA–2009–0640; FRL–9919–44–OSWER]. RIN–2050–AE81. April.

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

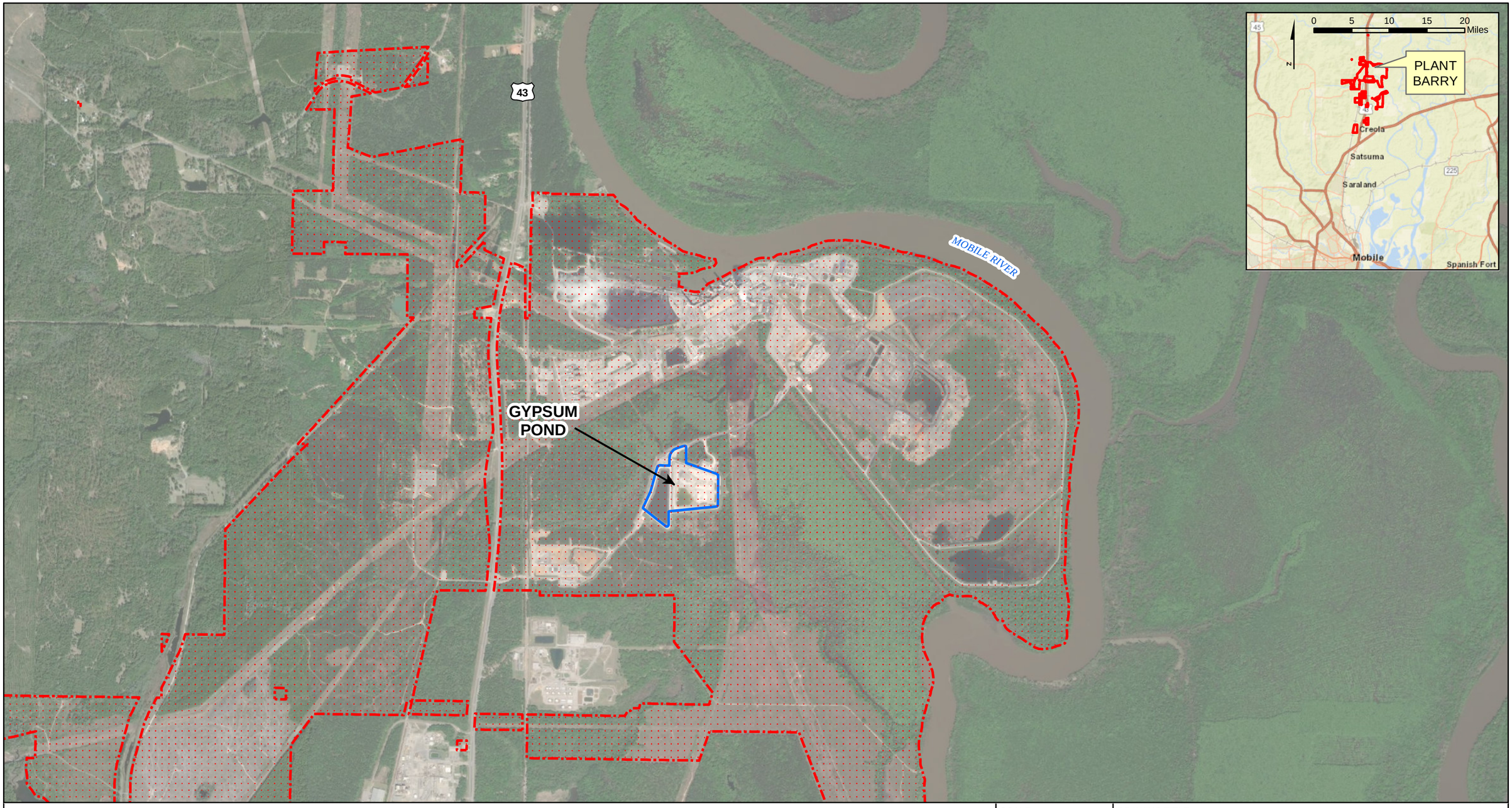
United States Geological Survey (USGS), 1982a (Photorevised 1985), Creola Alabama Quadrangle, 7.5 Minute Series Topographic Map.

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

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

Walter, G.R., and Kidd, R.E., 1979, Ground-water management techniques for the control of salt-water encroachment in Gulf Coast aquifer, a summary report: Geological Survey of Alabama open-file report, p. 84.

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

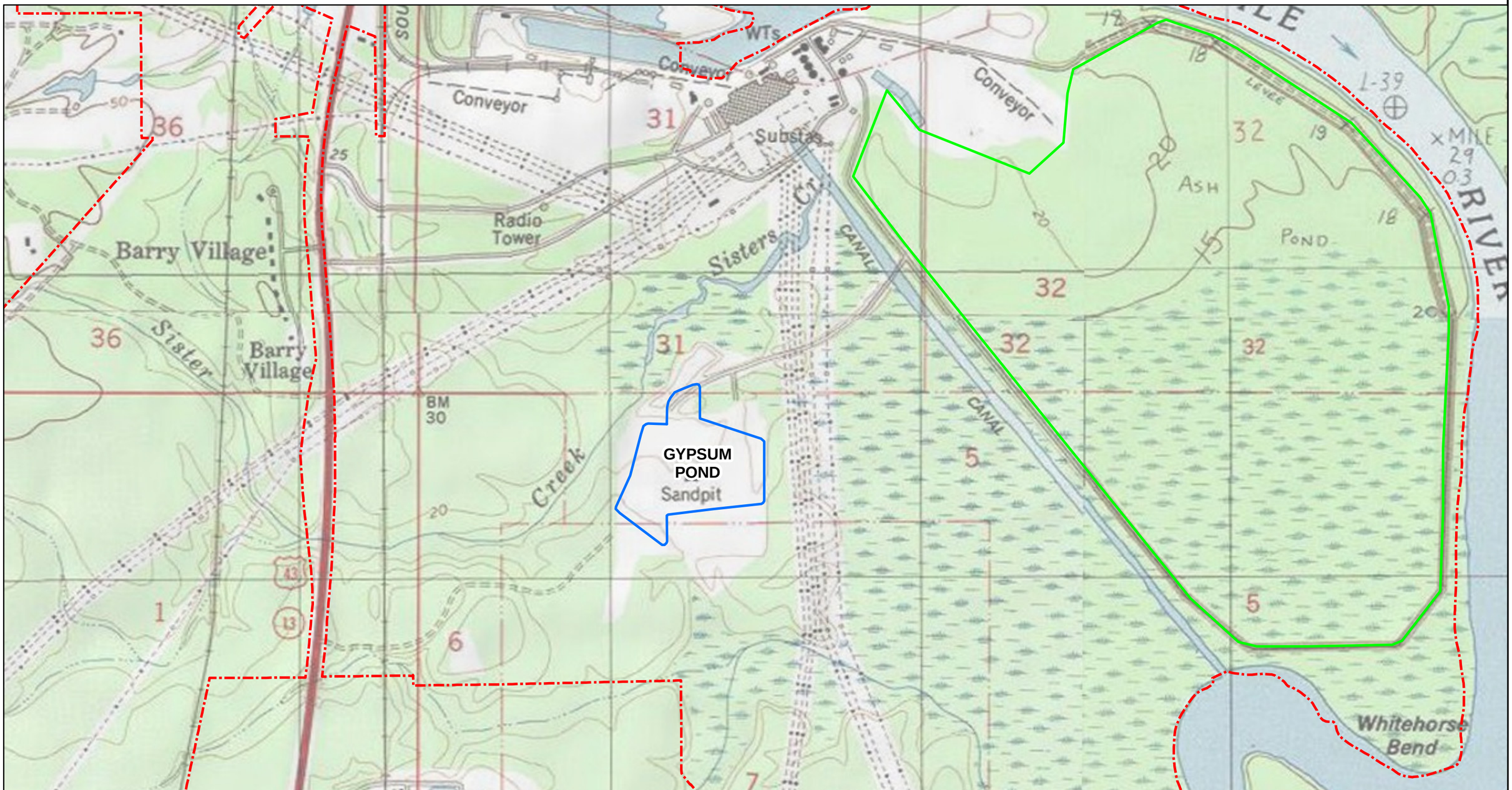
DRAWING TITLE

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

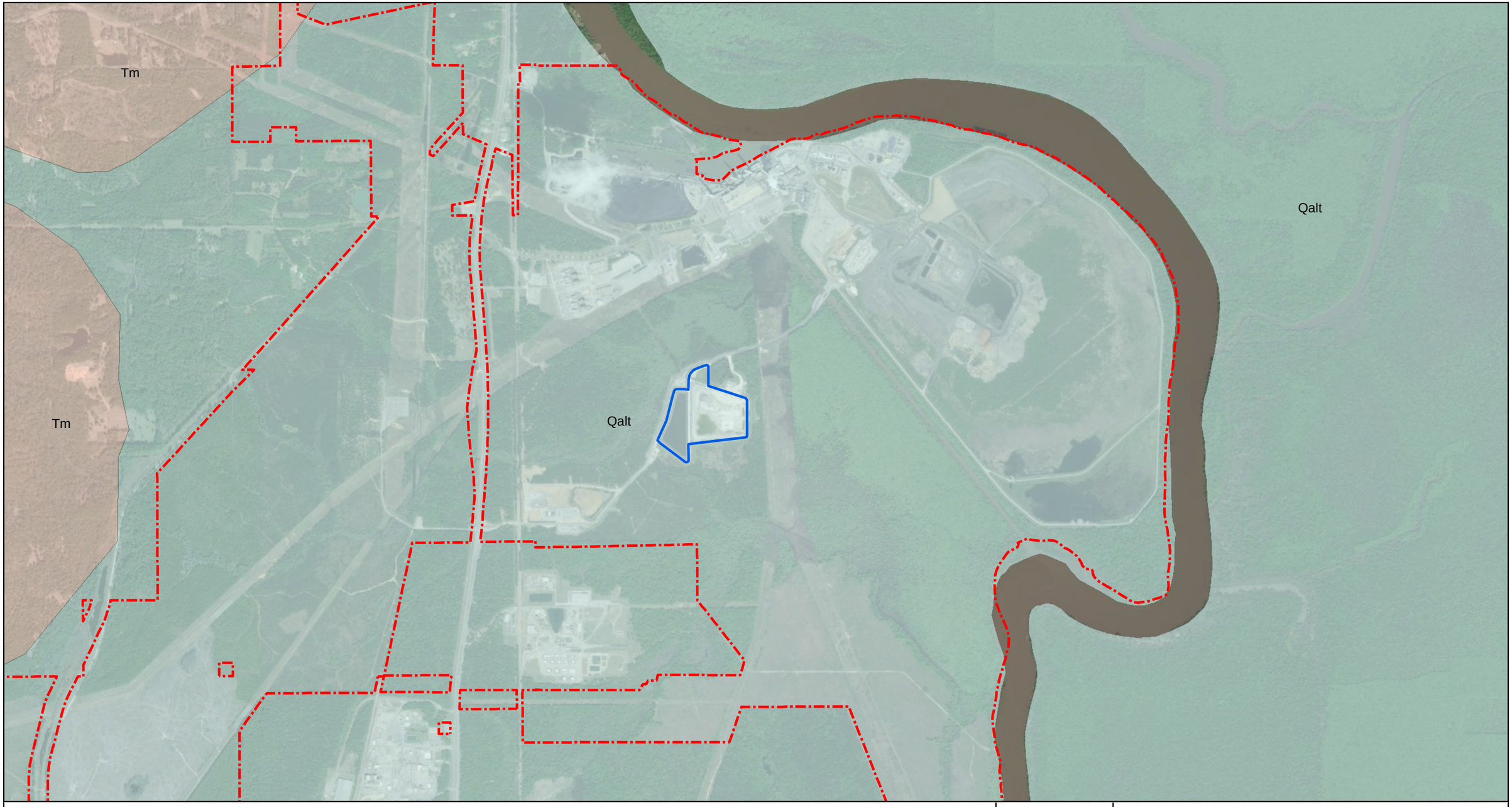
DRAWING TITLE

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

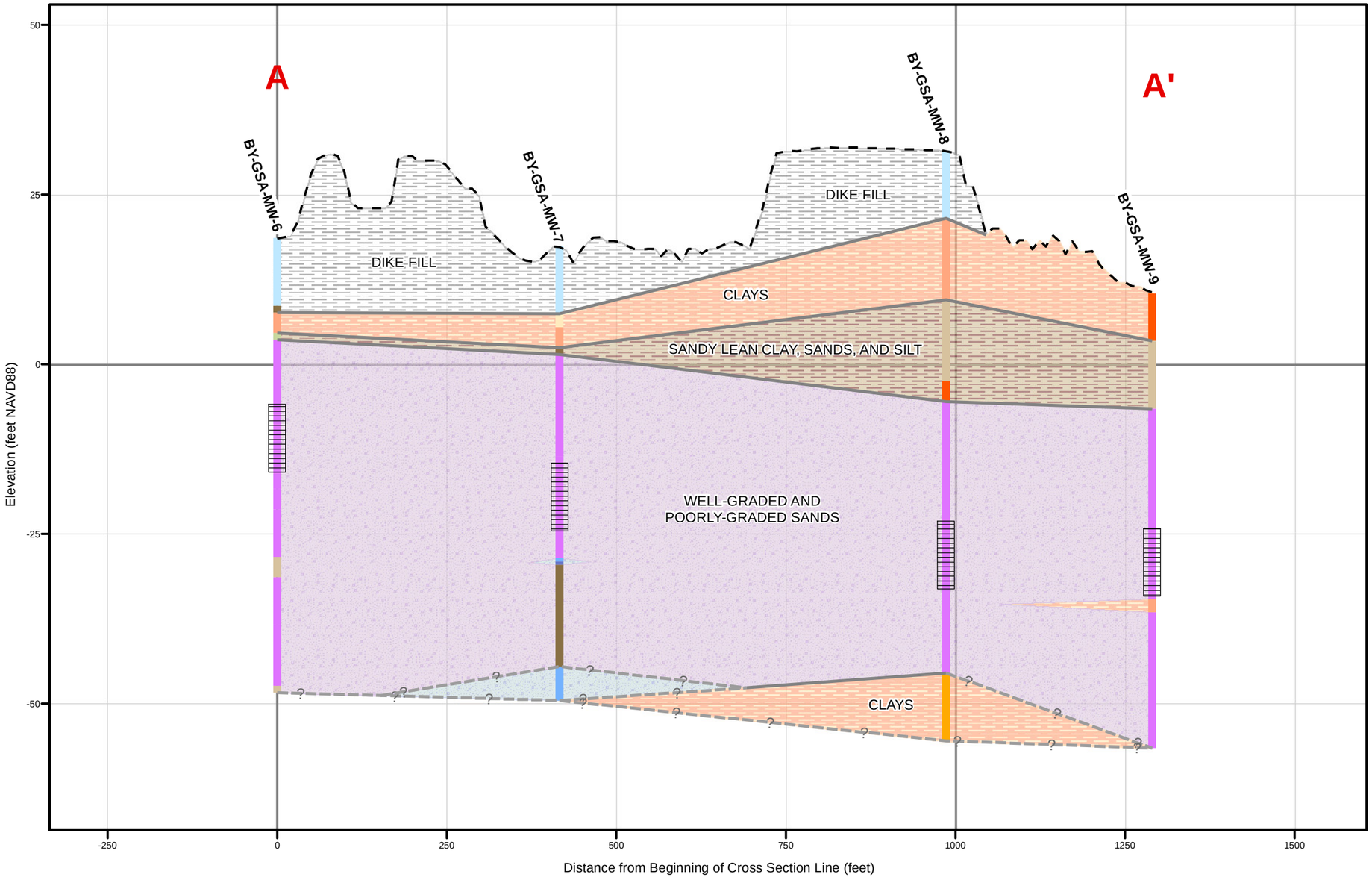
DRAWING TITLE

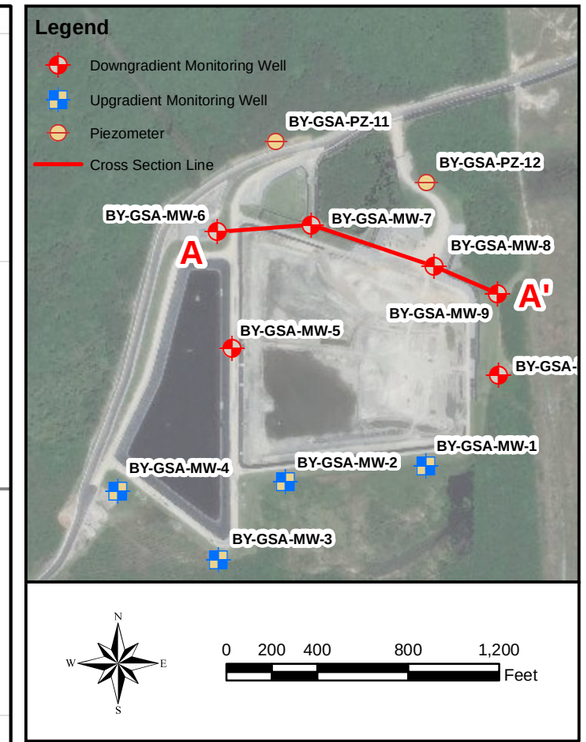
SITE GEOLOGIC MAP
PLANT BARRY GYPSUM POND

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

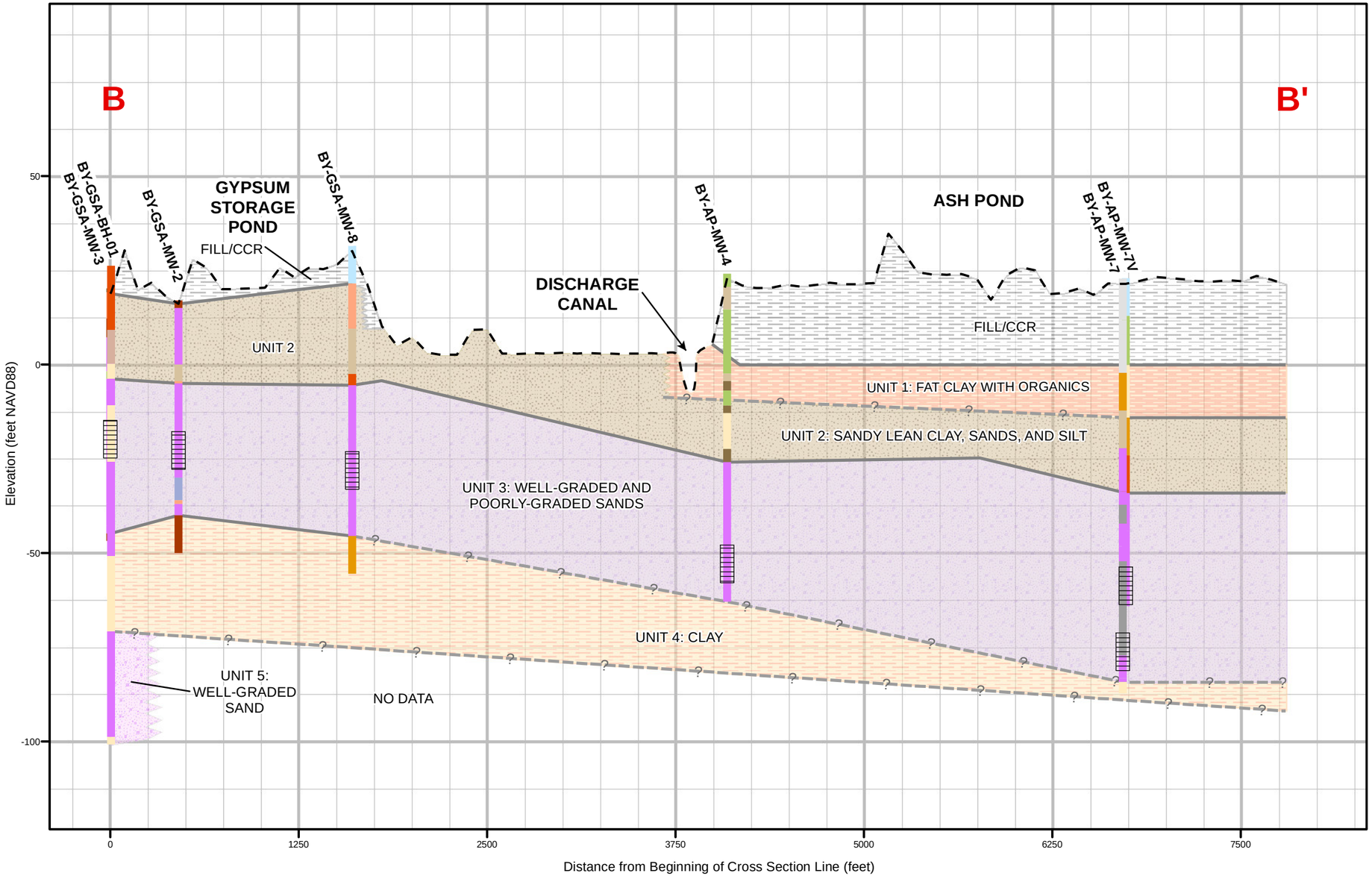
DRAWING TITLE

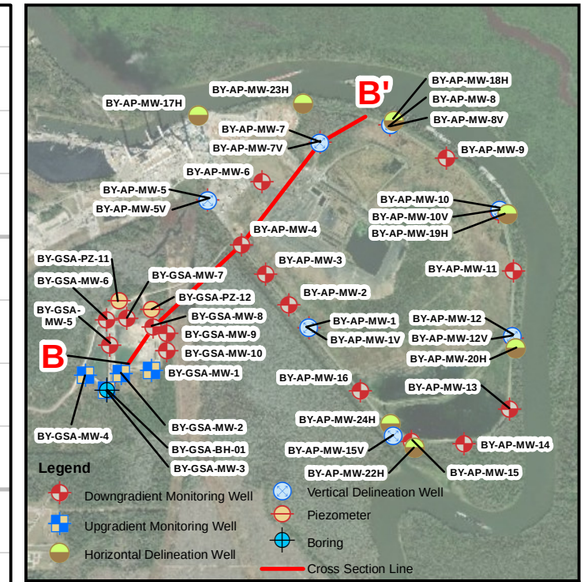
GEOLOGIC CROSS SECTION A - A'
PLANT BARRY GYPSUM POND

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	7/23/2020
DRAWN BY	KAR
CHECKED BY	GBD

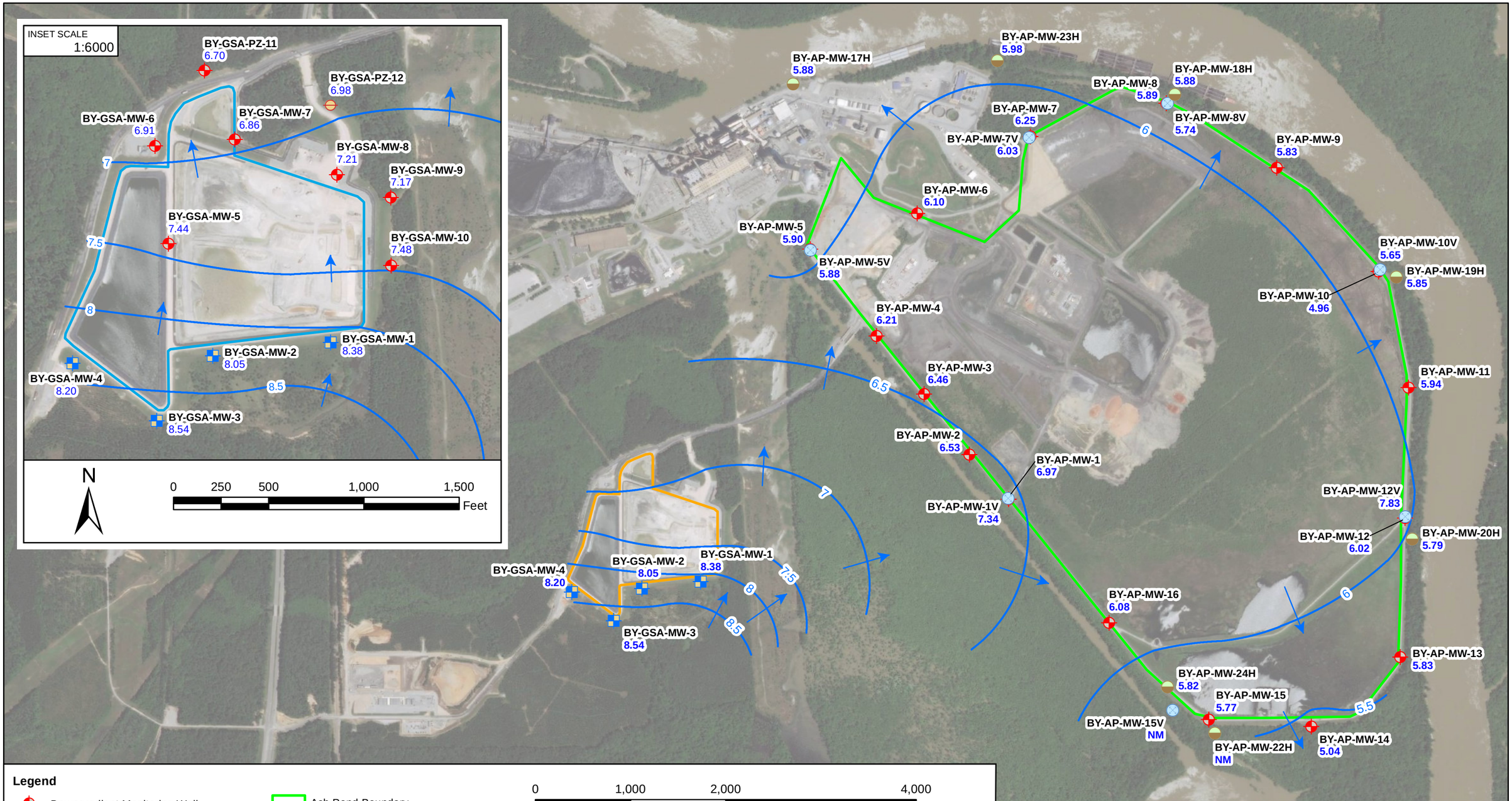
DRAWING TITLE

GROUNDWATER MONITORING NETWORK MAP
PLANT BARRY GYPSUM POND

FIGURE NO

FIGURE 7

Southern Company



Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Phase I Horizontal Delineation Monitoring Well
- Phase II Vertical Delineation Monitoring Well
- Approximate Groundwater Flow Direction
- Potentiometric Surface Contour (ft NAVD88)
- Ash Pond Boundary
- Gypsum Pond Boundary

BY-AP-MW-1 Well ID
6.97 Groundwater Elevation

NOTES:
1. NAVD88 indicates North American Vertical Datum of 1988.
2. MW-15V and MW-22H were unable to be accessed due to surface flooding conditions.
3. MW-1 was not factored into groundwater elevation contours, because groundwater elevations observed in MW-1 indicate that screened interval is semi-confined from others in the network.
4. MW-10 was not factored into groundwater elevation contours, because groundwater elevations observed in MW-10 indicate that screened interval is semi-confined from others in the network.
5. MW-12V was not factored into groundwater elevation contours, because of its anomalously high groundwater elevation. Because of this anomalously high groundwater elevation value, the accuracy of the surveyed top of casing elevation of MW-12V is being evaluated.

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

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
MARCH 30, 2020
PLANT BARRY ASH POND

FIGURE NO
FIGURE 6A

Southern Company

Legend

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

BY-AP-MW-1 Well ID
5.31 Groundwater Elevation

N

0 250 500 1,000 Feet

SCALE	1:3000
DATE	11/5/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
SEPTEMBER 8, 2020
PLANT BARRY GYPSUM POND

FIGURE NO
FIGURE 6B

Southern Company

Tables

Table 1.
Groundwater Monitoring Well Network Details

Well Name	Purpose	Installation Date	Northing [1]	Easting [1]	Ground Elevation [2]	Top of Casing Elevation [2]	Well Depth (ft.) Below Top of Casing	Top of Screen Elevation [2,4]	Bottom of Screen Elevation [2,4]	Screen Length (ft.)
BY-GSA-MW-1	Upgradient	10/7/2015	362040.419	1808280.793	17.49	20.66	43.83	-15.94	-5.94	10
BY-GSA-MW-2	Upgradient	10/7/2015	361970.572	1807662.482	17.00	19.95	47.58	-20.18	-10.18	10
BY-GSA-MW-3	Upgradient	10/7/2015	361628.894	1807368.366	20.15	23.24	48.53	-17.98	-7.98	10
BY-GSA-MW-4	Upgradient	10/13/2015	361930.406	1806925.713	26.16	29.12	64.06	-27.50	-17.50	10
BY-GSA-MW-5	Downgradient	10/8/2015	362556.147	1807430.006	31.21	34.31	69.12	-27.51	-17.51	10
BY-GSA-MW-6	Downgradient	10/8/2015	363069.127	1807359.035	18.60	21.68	37.88	-8.88	1.12	10
BY-GSA-MW-7	Downgradient	10/8/2015	363103.505	1807778.082	17.46	20.59	45.53	-17.67	-7.67	10
BY-GSA-MW-8	Downgradient	10/8/2015	362919.540	1808314.524	31.51	34.36	68.84	-26.93	-16.93	10
BY-GSA-MW-9	Downgradient	10/8/2015	362798.723	1808598.555	10.44	13.32	46.14	-25.30	-15.30	10
BY-GSA-MW-10	Downgradient	10/8/2015	362443.556	1808600.090	14.65	17.61	44.69	-19.64	-9.64	10
BY-GSA-PZ-11 [3]	Downgradient	10/8/2015	363464.097	1807619.818	23.56	25.92	57.92	-23.96	-13.96	10
BY-GSA-PZ-12 [3]	Piezometer	10/8/2015	363285.151	1808280.669	14.14	17.43	43.48	-18.94	-8.94	10

Notes:
1. Northing and easting are in feet relative to the State Plane Alabama West North America Datum of 1983.
2. Elevations are in feet relative to the North American vertical Datum of 1988.
3. Piezometers are utilized for water level readings except for PZ-11 which has been converted to a downgradient monitoring well.
4. Top of screen and bottom of screen depths are calculated relative Top of Casing elevation and less the well sump length of 0.4’.

Table 2.
Monitoring Parameters and Reporting Limits

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

Notes:

1. mg/L - Milligrams per liter

2. Combined Radium 226 + 228 reported in pCi/L - Picocuries per liter

Table 3.
Groundwater Elevations Summary

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
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
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
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
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
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
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
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
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
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
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
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
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

Well Name	Top of Casing Elevation	Groundwater Elevation (ft. MSL)								
		11/15/2017	1/21/2018	4/30/2018	8/27/2018	11/26/2018	5/28/2019	10/2/2019	3/30/2020	9/8/2020
BY-GSA-MW-1	20.66	5.43	4.75	6.83	5.22	5.84	6.60	4.78	8.38	5.31
BY-GSA-MW-2	19.95	5.28	4.68	6.66	5.06	5.73	6.32	4.71	8.05	5.16
BY-GSA-MW-3	23.24	6.08	5.46	7.19	5.76	6.40	7.02	5.37	8.54	5.83
BY-GSA-MW-4	29.12	5.69	5.18	6.99	5.47	6.13	6.57	5.16	8.20	5.53
BY-GSA-MW-5	34.31	4.67	4.18	6.42	4.61	5.30	5.62	4.35	7.44	4.55
BY-GSA-MW-6	21.68	3.93	3.56	6.02	4.07	4.72	4.74	3.85	6.91	4.00
BY-GSA-MW-7	20.59	3.92	3.47	6.00	3.99	4.77	4.84	3.84	6.86	3.91
BY-GSA-MW-8	34.36	4.36	3.82	6.28	4.34	5.15	5.36	4.07	7.21	4.31
BY-GSA-MW-9	13.32	4.25	3.72	6.10	4.26	5.07	5.29	3.91	7.17	4.34
BY-GSA-MW-10	17.61	4.76	4.15	6.41	4.69	5.41	5.85	4.31	7.48	4.63
BY-GSA-PZ-11	25.92	3.46	3.15	5.96	3.79	4.46	4.41	3.68	6.70	3.54
BY-GSA-PZ-12	17.43	3.97	3.52	6.18	4.12	4.97	4.98	3.87	6.98	4.00

Notes:

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

Table 4.
Horizontal Groundwater Flow Velocity Calculation

SA01 2020								
Source	**MW-2**	**MW-7**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity**	**Calculated Groundwater Flow Velocity**
3/30/2020	**h_1 (ft)**	**h_2 (ft)**	**Δl (ft)**	**Δh/Δl (ft/ft)**	**K (ft/d)**	**n**	**(ft/d)**	**(ft/yr)**
Pump Testing	8.05	6.86	1138.82	0.00104	9.40	0.25	0.039	14.3

SA01 2020								
Source	**MW-2**	**MW-7**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity**	**Calculated Groundwater Flow Velocity**
9/8/2020	**h_1 (ft)**	**h_2 (ft)**	**Δl (ft)**	**Δh/Δl (ft/ft)**	**K (ft/d)**	**n**	**(ft/d)**	**(ft/yr)**
Pump Testing	5.16	3.91	1138.82	0.00110	9.40	0.25	0.041	15.1

Notes:
ft=feet
ft/d = feet/day
ft/ft = feet per foot
ft/yr = feet per year

Table 5.
Relative Percent Difference Calculations

2020 1st Semi-Annual Monitoring Event				
Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		BY-GSA-MW-7	**BY-GSA-MW-7 Dup**	
Calcium	mg/L	1.32	1.31	0.8
Chloride	mg/L	10.5	10.3	1.9
Sulfate	mg/L	4.29	4.47	4.1
TDS	mg/L	39.3	36	8.8
Barium	mg/L	0.0788	0.0772	2.1

Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		BY-GSA-MW-10	**BY-GSA-MW-10 Dup**	
Boron	mg/L	0.0442	0.0438	0.9
Calcium	mg/L	0.98	0.979	0.1
Chloride	mg/L	3.89	3.79	2.6
Sulfate	mg/L	11.1	11.1	0.0
TDS	mg/L	33.3	33.3	0.0
Barium	mg/L	0.122	0.12	1.7
Cobalt	mg/L	0.00238	0.00239	0.4

2020 2nd Semi-Annual Monitoring Event				
Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		BY-GSA-MW-5	**BY-GSA-MW-7 Dup**	
Boron	mg/L	0.521	0.548	5.1
Calcium	mg/L	3.24	3.32	2.4
Chloride	mg/L	6.23	6.44	3.3
Sulfate	mg/L	15.1	15.5	2.6
TDS	mg/L	55.3	55.3	0.0
Barium	mg/L	0.181	0.182	0.6
Chromium	mg/L	0.00221	0.00219	0.9
Cobalt	mg/L	0.00227	0.00232	2.2

Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		BY-GSA-MW-10	**BY-GSA-MW-10 Dup**	
Boron	mg/L	0.0509	0.0506	0.6
Calcium	mg/L	1.10	1.09	0.9
Chloride	mg/L	4.11	4.07	1.0
Sulfate	mg/L	9.28	9.73	4.7
TDS	mg/L	39.3	40.0	1.8
Barium	mg/L	0.125	0.128	2.4
Cobalt	mg/L	0.00241	0.00242	0.4

Table 6.
Summary of Background Levels and Groundwater Protection Standards

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

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and ADEM Rule 335-13-15-.06(h).

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
BY-GSA-MW-1	**3/31/2020**	0.33	243.97	20.55	86.94	2.10
BY-GSA-MW-2	**3/31/2020**	6.60	382.24	19.87	59.75	6.32
BY-GSA-MW-3	**3/31/2020**	6.04	366.76	20.30	52.07	4.95
BY-GSA-MW-4	**3/31/2020**	6.78	357.17	21.07	51.70	7.33
BY-GSA-MW-5	**3/30/2020**	5.79	330.81	22.20	41.20	1.65
BY-GSA-MW-6	**3/30/2020**	5.46	273.53	22.17	97.56	3.67
BY-GSA-MW-7	**3/30/2020**	3.67	332.16	21.18	52.94	7.19
BY-GSA-MW-8	**3/30/2020**	0.90	334.69	21.14	41.44	4.57
BY-GSA-MW-9	**3/31/2020**	2.73	249.23	21.25	74.30	2.66
BY-GSA-MW-10	**3/31/2020**	4.11	347.90	20.25	54.91	7.28
BY-GSA-PZ-11	**3/31/2020**	5.90	274.48	22.99	33.62	1.74

Notes:

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

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
BY-GSA-MW-1	**3/31/2020**	0.157	1.96	3.17	Non-Detect	4.64	24.3	53.3
BY-GSA-MW-2	**3/31/2020**	Non-Detect	1.43	2.72	Non-Detect	4.6	6.83	40
BY-GSA-MW-3	**3/31/2020**	Non-Detect	1.92	3.47	Non-Detect	4.4	7.98	39.3
BY-GSA-MW-4	**3/31/2020**	Non-Detect	1.78	3.34	Non-Detect	4.51	10.8	36.7
BY-GSA-MW-5	**3/30/2020**	Non-Detect	1.26	3.45	Non-Detect	4.83	6.34	32
BY-GSA-MW-6	**3/30/2020**	0.304	7.56	4.95	Non-Detect	5.51	21.8	58
BY-GSA-MW-7	**3/30/2020**	Non-Detect	1.32	10.5	Non-Detect	4.91	4.29	39.3
BY-GSA-MW-8	**3/30/2020**	Non-Detect	0.841	4.38	Non-Detect	4.92	4.84	30
BY-GSA-MW-9	**3/31/2020**	0.112	1.67	6.87	Non-Detect	4.45	12.5	37.3
BY-GSA-MW-10	**3/31/2020**	0.0442(J)	0.98	3.89	Non-Detect	4.55	11.1	33.3
BY-GSA-PZ-11	**3/31/2020**	0.0864(J)	0.663	4.13	Non-Detect	4.91	3.16	Non-Detect

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**3/31/2020**	Non-Detect	Non-Detect	0.176	Non-Detect	Non-Detect	Non-Detect	0.0123
BY-GSA-MW-2	**3/31/2020**	Non-Detect	Non-Detect	0.171	Non-Detect	Non-Detect	Non-Detect	0.00224(J)
BY-GSA-MW-3	**3/31/2020**	Non-Detect	Non-Detect	0.0927	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**3/31/2020**	Non-Detect	0.0017(J)	0.129	Non-Detect	Non-Detect	0.00604(J)	Non-Detect
BY-GSA-MW-5	**3/30/2020**	Non-Detect	Non-Detect	0.0718	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-6	**3/30/2020**	Non-Detect	Non-Detect	0.142	Non-Detect	Non-Detect	0.00273(J)	0.0031(J)
BY-GSA-MW-7	**3/30/2020**	Non-Detect	Non-Detect	0.0788	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	**3/30/2020**	Non-Detect	Non-Detect	0.0444	Non-Detect	Non-Detect	0.00275(J)	Non-Detect
BY-GSA-MW-9	**3/31/2020**	Non-Detect	Non-Detect	0.165	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	**3/31/2020**	Non-Detect	Non-Detect	0.122	Non-Detect	Non-Detect	Non-Detect	0.00238(J)
BY-GSA-PZ-11	**3/31/2020**	Non-Detect	Non-Detect	0.0499	Non-Detect	Non-Detect	0.00249(J)	Non-Detect

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**3/31/2020**	1.77	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	**3/31/2020**	0.814	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	**3/31/2020**	0.941	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**3/31/2020**	1.09	Non-Detect	0.00126(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	**3/30/2020**	0.525	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-6	**3/30/2020**	1.54	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00658(J)	Non-Detect
BY-GSA-MW-7	**3/30/2020**	0.939	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	**3/30/2020**	0.397(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	**3/31/2020**	1.88	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	**3/31/2020**	1.01	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-PZ-11	**3/31/2020**	0.968	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
BY-GSA-MW-1	**9/9/2020**	0.1	205.82	21.21	66.68	1.02
BY-GSA-MW-2	**9/9/2020**	6.52	256.03	20.79	59.7	9.32
BY-GSA-MW-3	**9/9/2020**	5.92	236.75	20.6	52.56	2.24
BY-GSA-MW-4	**9/8/2020**	6.38	267.52	22.86	53.56	4.76
BY-GSA-MW-5	**9/8/2020**	4.68	274.81	23.46	78.96	0.62
BY-GSA-MW-6	**9/8/2020**	4.88	241.31	23.41	85.69	3.38
BY-GSA-MW-7	**9/8/2020**	3.59	316.7	22.14	48.46	2.9
BY-GSA-MW-8	**9/8/2020**	0.88	327.58	21.56	41.97	2.49
BY-GSA-MW-9	**9/9/2020**	1.51	310.36	22.47	75.22	1.2
BY-GSA-MW-10	**9/9/2020**	4.13	326.52	22.04	56.91	8.93
BY-GSA-PZ-11	**9/8/2020**	5.57	312.57	23.1	33.02	1.06

Notes:

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

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
BY-GSA-MW-1	**9/9/2020**	0.0999(J)	1.43	2.92	Non-Detect	4.65	16.5	42
BY-GSA-MW-2	**9/9/2020**	Non-Detect	1.5	2.32	Non-Detect	4.67	6.08	40.7
BY-GSA-MW-3	**9/9/2020**	Non-Detect	1.97	3.47	Non-Detect	4.76	7.13	42.7
BY-GSA-MW-4	**9/8/2020**	Non-Detect	1.94	3.29	Non-Detect	4.75	6.52	39.3
BY-GSA-MW-5	**9/8/2020**	0.521	3.24	6.23	Non-Detect	4.77	15.1	55.3
BY-GSA-MW-6	**9/8/2020**	0.362	6.38	5.71	Non-Detect	5.15	17.7	59.3
BY-GSA-MW-7	**9/8/2020**	Non-Detect	1.12	8.74	Non-Detect	4.39	3.59	42
BY-GSA-MW-8	**9/8/2020**	Non-Detect	0.981	4.61	Non-Detect	4.35	4.56	38
BY-GSA-MW-9	**9/9/2020**	0.0873(J)	1.79	7.94	Non-Detect	4.46	10.7	50.7
BY-GSA-MW-10	**9/9/2020**	0.0509(J)	1.1	4.11	Non-Detect	4.58	9.28	39.3
BY-GSA-PZ-11	**9/8/2020**	0.0638(J)	0.724	3.96	Non-Detect	4.12	3.61	29.3

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.

2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**9/9/2020**	Non-Detect	Non-Detect	0.124	Non-Detect	Non-Detect	Non-Detect	0.00697
BY-GSA-MW-2	**9/9/2020**	Non-Detect	Non-Detect	0.172	Non-Detect	Non-Detect	Non-Detect	0.00219(J)
BY-GSA-MW-3	**9/9/2020**	Non-Detect	Non-Detect	0.0919	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**9/8/2020**	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	**9/8/2020**	Non-Detect	Non-Detect	0.181	Non-Detect	Non-Detect	0.00221(J)	0.00227(J)
BY-GSA-MW-6	**9/8/2020**	Non-Detect	Non-Detect	0.0981	Non-Detect	Non-Detect	0.00237(J)	0.00296(J)
BY-GSA-MW-7	**9/8/2020**	Non-Detect	Non-Detect	0.0615	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	**9/8/2020**	Non-Detect	Non-Detect	0.0494	Non-Detect	Non-Detect	0.00224(J)	Non-Detect
BY-GSA-MW-9	**9/9/2020**	Non-Detect	Non-Detect	0.17	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	**9/9/2020**	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	0.00241(J)
BY-GSA-PZ-11	**9/8/2020**	Non-Detect	Non-Detect	0.05	Non-Detect	Non-Detect	0.00253(J)	Non-Detect

Notes:

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

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**9/9/2020**	1.77	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	**9/9/2020**	0.653(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	**9/9/2020**	1.05	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**9/8/2020**	1.27	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	**9/8/2020**	0.845	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0052(J)	Non-Detect
BY-GSA-MW-6	**9/8/2020**	0.402(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0052(J)	Non-Detect
BY-GSA-MW-7	**9/8/2020**	1.13	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	**9/8/2020**	0.0249(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	**9/9/2020**	2.11	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	**9/9/2020**	1.32	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-PZ-11	**9/8/2020**	0.468(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

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

Appendix A

Appendix A
Abbreviations

Abbreviations:

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

Analytical Data Summary
Plant Barry Gypsum Pond
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-1	2/23/2016	0.0212(J)	1.28	3.59	0.03(J)	4.62	8.59	26.7	Non-Detect	Non-Detect	0.117	Non-Detect	Non-Detect	Non-Detect	0.0035(J)	2.8971	0.03(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	4/19/2016	Non-Detect	1.19	2.89	0.023(J)	4.74	8.27	Non-Detect	Non-Detect	Non-Detect	0.099	Non-Detect	Non-Detect	Non-Detect	0.0038(J)	3	0.023(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	6/6/2016	Non-Detect	1.19	3.12	0.062(J)	4.65	8.66	32.7	Non-Detect	Non-Detect	0.107	0.000612(J)	Non-Detect	Non-Detect	0.00427(J)	0.841	0.062(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	8/30/2016	Non-Detect	1.11	3.91	0.053(J)	4.64	9.74	33.3	Non-Detect	Non-Detect	0.106	Non-Detect	Non-Detect	Non-Detect	0.00348(J)	1.74	0.053(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	10/18/2016	Non-Detect	1.04	3.9	0.042(J)	4.74	10.2	27.3	Non-Detect	Non-Detect	0.102	Non-Detect	Non-Detect	Non-Detect	0.00338(J)	1.47	0.042(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	1/31/2017	Non-Detect	1.19	n/a	n/a	4.54	n/a	32	0.000925(J)	Non-Detect	0.0944	Non-Detect	Non-Detect	Non-Detect	0.00308(J)	0.952	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	3/20/2017	n/a	n/a	3.5	Non-Detect	4.67	8.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-1	5/2/2017	Non-Detect	1.05	3.5	0.04(J)	4.79	6.6	31.3	Non-Detect	Non-Detect	0.0868	0.00069(J)	Non-Detect	Non-Detect	0.00314(J)	0.768	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	6/6/2017	Non-Detect	0.978	3.1	Non-Detect	4.76	7.6	35.3	Non-Detect	Non-Detect	0.0799	Non-Detect	Non-Detect	Non-Detect	0.0036(J)	1.04	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	9/13/2017	Non-Detect	1.14	4	0.04(J)	4.81	8.4	36.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.04(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-1	1/23/2018	n/a	n/a	n/a	Non-Detect	4.79	n/a	n/a	Non-Detect	Non-Detect	0.0884	Non-Detect	Non-Detect	Non-Detect	0.00586(J)	0.513(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	5/2/2018	0.0362(J)	1.64	9.9	0.04(J)	4.62	5.9	34	Non-Detect	Non-Detect	0.137	Non-Detect	Non-Detect	Non-Detect	0.00702(J)	0.916	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	11/27/2018	0.11	2.01	4.7	Non-Detect	4.73	22	50.7	Non-Detect	Non-Detect	0.157	0.000856(J)	Non-Detect	Non-Detect	0.0157	1.37	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	5/29/2019	0.188	1.85	5.48	0.0502(J)	4.65	23.3	58	Non-Detect	Non-Detect	0.166	Non-Detect	Non-Detect	Non-Detect	0.0109	1.57	0.0502(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	10/2/2019	0.097(J)	1.55	3.65	Non-Detect	4.57	17.5	46	Non-Detect	Non-Detect	0.129	Non-Detect	Non-Detect	Non-Detect	0.0129	0.905	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	3/31/2020	0.157	1.96	3.17	Non-Detect	4.64	24.3	53.3	Non-Detect	Non-Detect	0.176	Non-Detect	Non-Detect	Non-Detect	0.0123	1.77	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-1	9/9/2020	0.0999(J)	1.43	2.92	Non-Detect	4.65	16.5	42	Non-Detect	Non-Detect	0.124	Non-Detect	Non-Detect	Non-Detect	0.00697	1.77	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-2	2/23/2016	0.0252(J)	1.11	3.99	0.02(J)	4.79	7.2	30.7	Non-Detect	Non-Detect	0.111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	4/19/2016	Non-Detect	1.09	4.08	0.021(J)	4.84	7.22	Non-Detect	Non-Detect	Non-Detect	0.0875	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.021(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	6/7/2016	0.0202(J)	1.16	4.28	0.06(J)	4.81	7.92	35.3	Non-Detect	Non-Detect	0.0979	0.00093(J)	Non-Detect	Non-Detect	Non-Detect	0.652	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	8/30/2016	Non-Detect	1.08	4.26	0.05(J)	4.76	8.17	27.3	Non-Detect	Non-Detect	0.108	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.411(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	10/18/2016	Non-Detect	1.03	4.26	0.04(J)	4.84	7.99	Non-Detect	Non-Detect	Non-Detect	0.103	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	1/31/2017	Non-Detect	1.23	n/a	n/a	4.6	n/a	32.7	0.000898(J)	Non-Detect	0.109	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.398(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	3/20/2017	n/a	n/a	4.1	Non-Detect	4.71	6.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-2	5/2/2017	Non-Detect	1.28	5	0.04(J)	4.8	5	30.7	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.66	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	6/6/2017	Non-Detect	1.25	3.9	0.04(J)	4.72	5.3	34.7	Non-Detect	Non-Detect	0.108	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.639	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	9/13/2017	Non-Detect	1.6	4.3	0.043(J)	4.71	4.9(J)	39.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.043(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-2	1/23/2018	n/a	n/a	n/a	0.04(J)	4.67	n/a	n/a	Non-Detect	Non-Detect	0.153	Non-Detect	Non-Detect	0.00596(J)	0.0021(J)	0.669(U)	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	5/1/2018	Non-Detect	1.58	3.7	0.04(J)	4.61	4.2(J)	42	Non-Detect	Non-Detect	0.167	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.06	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	11/27/2018	0.0207(J)	1.49	3.2	Non-Detect	4.72	3.7(J)	31.3	Non-Detect	Non-Detect	0.158	0.000801(J)	Non-Detect	Non-Detect	0.00209(J)	0.636	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	5/29/2019	Non-Detect	1.59	2.93	Non-Detect	4.58	5.94	40	Non-Detect	Non-Detect	0.172	Non-Detect	Non-Detect	Non-Detect	0.00248(J)	0.579(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	10/2/2019	Non-Detect	1.7	2.75	Non-Detect	4.43	6.04	41.3	Non-Detect	Non-Detect	0.183	Non-Detect	Non-Detect	Non-Detect	0.00244(J)	1.33	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	3/31/2020	Non-Detect	1.43	2.72	Non-Detect	4.6	6.83	40	Non-Detect	Non-Detect	0.171	Non-Detect	Non-Detect	Non-Detect	0.00224(J)	0.814	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	9/9/2020	Non-Detect	1.5	2.32	Non-Detect	4.67	6.08	40.7	Non-Detect	Non-Detect	0.172	Non-Detect	Non-Detect	Non-Detect	0.00219(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-3	2/23/2016	Non-Detect	1.77	3.68	0.02(J)	4.96	7.44	40	Non-Detect	Non-Detect	0.0862	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	4/19/2016	Non-Detect	1.68	3.72	0.016(J)	4.94	7.66	32	Non-Detect	Non-Detect	0.0718	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.016(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	6/7/2016	Non-Detect	1.68	3.66	0.052(J)	4.96	8.16	38.7	Non-Detect	Non-Detect	0.0754	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.342(U)	0.052(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	8/30/2016	Non-Detect	1.62	3.7	0.038(J)	4.92	8.43	31.3	Non-Detect	Non-Detect	0.0768	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.702	0.038(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	10/18/2016	Non-Detect	1.53	3.77	0.03(J)	4.98	8.47	26.7	Non-Detect	Non-Detect	0.0727	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.791	0.03(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	1/31/2017	Non-Detect	1.65	n/a	n/a	4.74	n/a	30	0.000911(J)	Non-Detect	0.0698	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0613(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	3/20/2017	n/a	n/a	3.7	Non-Detect	4.9	7.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-3	5/2/2017	Non-Detect	1.58	4.6	Non-Detect	4.98	6.3	30.7	Non-Detect	Non-Detect	0.0723	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.974	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	6/6/2017	Non-Detect	1.55	3.4	Non-Detect	4.94	7.1	32.7	Non-Detect	Non-Detect	0.07	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.748	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	9/13/2017	Non-Detect	1.71	3.9	Non-Detect	4.93	7.3	38	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-3	1/23/2018	n/a	n/a	n/a	Non-Detect	4.91	n/a	n/a	Non-Detect	Non-Detect	0.0747	Non-Detect	Non-Detect	0.00229(J)	Non-Detect	0.558(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	5/1/2018	Non-Detect	1.76	4.1	Non-Detect	4.87	6.9	35.3	Non-Detect	Non-Detect	0.0877	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.296(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	11/27/2018	Non-Detect	1.69	3.5	Non-Detect	4.94	6.5	36	Non-Detect	Non-Detect	0.0804	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.357(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	5/29/2019	Non-Detect	1.74	3.58	Non-Detect	4.8	7.81	37.3	Non-Detect	Non-Detect	0.0831	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.275(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	10/2/2019	Non-Detect	1.86	3.64	Non-Detect	4.52	7.62	36.7	Non-Detect	Non-Detect	0.089	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.458(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	3/31/2020	Non-Detect	1.92	3.47	Non-Detect	4.4	7.98	39.3	Non-Detect	Non-Detect	0.0927	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.941	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	9/9/2020	Non-Detect	1.97	3.47	Non-Detect	4.76	7.13	42.7	Non-Detect	Non-Detect	0.0919	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.05	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-4	2/23/2016	0.0257(J)	1.42	3.5	0.02(J)	4.74	7.04	Non-Detect	0.000606(J)	Non-Detect	0.0973	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.1138	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	4/19/2016	Non-Detect	1.31	3.63	0.015(J)	4.86	6.74	Non-Detect	Non-Detect	Non-Detect	0.0802	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.015(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	6/6/2016	Non-Detect	1.35	3.6	0.05(J)	4.88	7.04	28.7	Non-Detect	Non-Detect	0.0862	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.757	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	8/30/2016	Non-Detect	1.31	3.54	0.036(J)	4.91	7.57	25.3	Non-Detect	Non-Detect	0.0841	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.992	0.036(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	10/18/2016	0.022(J)	1.22	3.68	0.025(J)	4.95	6.62	Non-Detect	Non-Detect	Non-Detect	0.0715	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.905	0.025(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	1/31/2017	Non-Detect	1.36	n/a	n/a	4.71	n/a	26	0.000928(J)	Non-Detect	0.0825	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.08	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	3/20/2017	n/a	n/a	4.6	Non-Detect	4.83	7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-4	5/2/2017	Non-Detect	1.24	3.9	Non-Detect	4.93	5.6	Non-Detect	Non-Detect	Non-Detect	0.0777	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.18	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	6/6/2017	Non-Detect	1.28	3.4	Non-Detect	4.9	6.6	42.7	Non-Detect	Non-Detect	0.078	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.1	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	9/12/2017	Non-Detect	1.47	4.3	Non-Detect	4.82	7.2	26.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-4	1/23/2018	n/a	n/a	n/a	Non-Detect	4.85	n/a	n/a	Non-Detect	Non-Detect	0.0825	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.32(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	5/1/2018	Non-Detect	1.47	3.8	Non-Detect	4.8	5.9	34.7	Non-Detect	Non-Detect	0.102	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.19	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	11/26/2018	Non-Detect	1.52	3.6	Non-Detect	4.88	5.1	32.7	Non-Detect	Non-Detect	0.0994	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.863	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	5/28/2019	Non-Detect	1.6	3.6	Non-Detect	4.73	7.1	31.3	Non-Detect	Non-Detect	0.102	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.474(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	10/2/2019	Non-Detect	1.7	3.5	Non-Detect	4.67	6.88	36	Non-Detect	Non-Detect	0.111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.624(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	3/31/2020	Non-Detect	1.78	3.34	Non-Detect	4.51	10.8	36.7	Non-Detect	0.0017(J)	0.129	Non-Detect	Non-Detect	0.00604(J)	Non-Detect	1.09	Non-Detect	0.00126(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	9/8/2020	Non-Detect	1.94	3.29	Non-Detect	4.75	6.52	39.3	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.27	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-5	2/23/2016	0.163	2.42	3.86	0.02(J)	4.76	12.5	38	Non-Detect	Non-Detect	0.109	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00572(J)	Non-Detect
BY-GSA-MW-5	4/18/2016	0.361	4.65	4.46	0.04(J)	4.75	28.6	62	Non-Detect	Non-Detect	0.135	Non-Detect	Non-Detect	Non-Detect	0.00278(J)	3	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0141	Non-Detect
BY-GSA-MW-5	6/7/2016	0.169	3.1	3.74	0.066(J)	4.77	18.7	51.3	Non-Detect	Non-Detect	0.0892	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.03	0.066(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00698(J)	Non-Detect
BY-GSA-MW-5	8/30/2016	0.0858(J)	2.19	3.5	0.046(J)	4.82	13.8	38	Non-Detect	Non-Detect	0.083	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.696	0.046(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0042(J)	Non-Detect
BY-GSA-MW-5	10/18/2016	0.0778(J)	1.97	3.5	0.034(J)	4.82	12.2	28.7	Non-Detect	Non-Detect	0.0859	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.966	0.034(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00386(J)	Non-Detect
BY-GSA-MW-5	1/31/2017	0.077(J)	1.73	n/a	n/a	4.8	n/a	34	0.000866(J)	Non-Detect	0.0779	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.724	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00247(J)	Non-Detect
BY-GSA-MW-5	3/21/2017	n/a	n/a	2.8	Non-Detect	4.86	8.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-5	5/2/2017	0.0602(J)	1.74	3.9	Non-Detect	4.89	8	37.3	Non-Detect	Non-Detect	0.0799	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.587	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00284(J)	Non-Detect
BY-GSA-MW-5	6/6/2017	0.0442(J)	1.66	3.4	Non-Detect	4.86	8.6	36.7	Non-Detect	Non-Detect	0.0788	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.591	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.003(J)	Non-Detect
BY-GSA-MW-5	9/13/2017	0.0411(J)	1.61	3.9	Non-Detect	4.89	7.6	37.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-5	1/24/2018	n/a	n/a	n/a	Non-Detect	4.86	n/a	n/a	Non-Detect	Non-Detect	0.0746	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.566(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00201(J)	Non-Detect
BY-GSA-MW-5	5/2/2018	0.0334(J)	1.44	3.5	Non-Detect	4.87	6	30.7	Non-Detect	Non-Detect	0.085	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.401	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	11/27/2018	0.0265(J)	1.3	3.7	Non-Detect	4.92	5.5	Non-Detect	Non-Detect	Non-Detect	0.072	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.611	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	5/28/2019	Non-Detect	1.25	3.69	Non-Detect	4.8	6.5	26	Non-Detect	Non-Detect	0.0684	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.391(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	10/2/2019	Non-Detect	1.33	3.49	Non-Detect	4.44	6.55	34.7	Non-Detect	Non-Detect	0.0728	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.954	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	3/30/2020	Non-Detect	1.26	3.45	Non-Detect	4.83	6.34	32	Non-Detect	Non-Detect	0.0718	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.525	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-5	9/8/2020	0.521	3.24	6.23	Non-Detect	4.77	15.1	55.3	Non-Detect	Non-Detect	0.181	Non-Detect	Non-Detect	0.00221(J)	0.00227(J)	0.845	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0052(J)	Non-Detect

Analytical Data Summary
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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-6	2/23/2016	0.638	18.3	6.06	0.06(J)	6.59	36.5	128	Non-Detect	Non-Detect	0.237	Non-Detect	Non-Detect	0.00209(J)	Non-Detect	1.2261	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0266	Non-Detect
BY-GSA-MW-6	4/18/2016	0.908	23.2	6.13	0.138(J)	6.21	80.2	166	Non-Detect	Non-Detect	0.263	0.000681(J)	Non-Detect	0.00324(J)	0.00338(J)	1.92351	0.138(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0529	Non-Detect
BY-GSA-MW-6	6/6/2016	0.733	19.7	5.52	0.148(J)	5.97	0.498(J)	131	0.000633(J)	Non-Detect	0.206	Non-Detect	Non-Detect	0.0031(J)	0.00361(J)	1.47	0.148(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0382	Non-Detect
BY-GSA-MW-6	8/30/2016	0.448	10.9	5.35	0.072(J)	5.99	27.8	86.7	Non-Detect	Non-Detect	0.165	Non-Detect	Non-Detect	0.00227(J)	Non-Detect	1.91	0.072(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.014	Non-Detect
BY-GSA-MW-6	10/18/2016	0.249	8.74	4.55	0.049(J)	5.94	22.5	67.3	Non-Detect	Non-Detect	0.148	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.966	0.049(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0105	Non-Detect
BY-GSA-MW-6	1/31/2017	0.121	7.89	n/a	n/a	5.92	n/a	60.7	0.000926(J)	Non-Detect	0.123	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.01	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0104	Non-Detect
BY-GSA-MW-6	3/21/2017	n/a	n/a	3.5	Non-Detect	5.74	15	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-6	5/2/2017	0.0695(J)	5.81	4.8	Non-Detect	5.82	11	50	Non-Detect	Non-Detect	0.098	0.000704(J)	Non-Detect	Non-Detect	Non-Detect	1.41	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00778(J)	Non-Detect
BY-GSA-MW-6	6/6/2017	0.0509(J)	4.72	3.6	Non-Detect	5.77	10	47.3	Non-Detect	Non-Detect	0.0844	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.476	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00576(J)	Non-Detect
BY-GSA-MW-6	9/12/2017	0.0709(J)	4.39	4.3	Non-Detect	5.64	7.5	42.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-6	1/22/2018	n/a	n/a	n/a	Non-Detect	5.66	n/a	n/a	Non-Detect	Non-Detect	0.0593	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.814(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00287(J)	Non-Detect
BY-GSA-MW-6	5/1/2018	0.0365(J)	4.66	3.8	Non-Detect	5.71	8.5	44	Non-Detect	Non-Detect	0.081	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.931	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00367(J)	Non-Detect
BY-GSA-MW-6	11/26/2018	0.0836(J)	3.41	3.5	Non-Detect	5.58	7.4	38	Non-Detect	Non-Detect	0.0657	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.815	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00286(J)	Non-Detect
BY-GSA-MW-6	5/28/2019	0.556	10	6.26	0.0591(J)	5.21	32.7	77.3	Non-Detect	Non-Detect	0.17	Non-Detect	Non-Detect	0.00223(J)	0.00301(J)	2.08	0.0591(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0089(J)	Non-Detect
BY-GSA-MW-6	10/2/2019	0.186	4.94	4.13	Non-Detect	5.4	15.9	50.7	Non-Detect	Non-Detect	0.0985	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.836	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00472(J)	Non-Detect
BY-GSA-MW-6	3/30/2020	0.304	7.56	4.95	Non-Detect	5.51	21.8	58	Non-Detect	Non-Detect	0.142	Non-Detect	Non-Detect	0.00273(J)	0.0031(J)	1.54	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00658(J)	Non-Detect
BY-GSA-MW-6	9/8/2020	0.362	6.38	5.71	Non-Detect	5.15	17.7	59.3	Non-Detect	Non-Detect	0.0981	Non-Detect	Non-Detect	0.00237(J)	0.00296(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0052(J)	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-7	2/23/2016	0.0314(J)	1.4	4.08	0.02(J)	5.12	3.82	Non-Detect	Non-Detect	Non-Detect	0.0546	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	4/18/2016	Non-Detect	1.2	4.14	0.018(J)	5.11	3.48	Non-Detect	Non-Detect	Non-Detect	0.0421	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.018(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	6/6/2016	Non-Detect	1.48	4.09	0.051(J)	5.14	3.76	32.7	Non-Detect	Non-Detect	0.0457	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.427	0.051(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	8/30/2016	Non-Detect	1.13	4.6	0.039(J)	5.06	3.62	25.3	Non-Detect	Non-Detect	0.0469	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.869	0.039(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	10/18/2016	Non-Detect	1.45	8.32	0.025(J)	5.01	2.58	28	Non-Detect	Non-Detect	0.0611	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.927	0.025(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	1/30/2017	Non-Detect	1.95	n/a	n/a	4.74	n/a	45.3	0.00119(J)	Non-Detect	0.0801	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.649	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	3/21/2017	n/a	n/a	5.6	Non-Detect	5.04	3.3(J)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-7	5/2/2017	Non-Detect	0.908	4.8	Non-Detect	5.08	2.5(J)	26.7	Non-Detect	Non-Detect	0.0388	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.804	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	6/7/2017	Non-Detect	1.29	6.3	Non-Detect	5.07	3.1(J)	28	Non-Detect	Non-Detect	0.0437	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.136(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	9/12/2017	Non-Detect	1.44	8.5	Non-Detect	5.03	3(J)	35.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-7	1/22/2018	n/a	n/a	n/a	Non-Detect	5.06	n/a	n/a	Non-Detect	Non-Detect	0.0399	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.726(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	5/1/2018	Non-Detect	0.695	4	Non-Detect	4.89	1.6(J)	30.7	Non-Detect	Non-Detect	0.04	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.63	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	11/27/2018	Non-Detect	0.798	4.3	Non-Detect	5.05	1.9(J)	30.7	Non-Detect	Non-Detect	0.0427	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.109(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	5/28/2019	Non-Detect	0.973	4.63	Non-Detect	4..83	4.86	33.3	Non-Detect	Non-Detect	0.0524	Non-Detect	Non-Detect	Non-Detect	Non-Detect	-0.428 (U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	10/2/2019	Non-Detect	0.929	5.02	Non-Detect	5.04	4.6	30.7	Non-Detect	Non-Detect	0.0492	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.430 (U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	3/30/2020	Non-Detect	1.32	10.5	Non-Detect	4.91	4.29	39.3	Non-Detect	Non-Detect	0.0788	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.939	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-7	9/8/2020	Non-Detect	1.12	8.74	Non-Detect	4.39	3.59	42	Non-Detect	Non-Detect	0.0615	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.13	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-8	2/23/2016	Non-Detect	0.618	4.47	0.02(J)	4.92	3.33	30	Non-Detect	Non-Detect	0.0352	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	4/18/2016	Non-Detect	0.505	4.74	0.019(J)	5.16	3.78	27.3	Non-Detect	Non-Detect	0.0251	Non-Detect	Non-Detect	0.00201(J)	Non-Detect	3	0.019(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	6/7/2016	Non-Detect	0.587	4.52	0.053(J)	5.11	4.44	32	Non-Detect	Non-Detect	0.0299	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.69	0.053(J)	Non-Detect	Non-Detect	0.00031(J)	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	8/30/2016	Non-Detect	0.495(J)	4.71	0.038(J)	5.14	4.29	Non-Detect	Non-Detect	Non-Detect	0.0287	Non-Detect	Non-Detect	0.00205(J)	Non-Detect	0.687	0.038(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	10/18/2016	0.0207(J)	0.503	4.73	0.028(J)	5.09	4.27	28	Non-Detect	Non-Detect	0.0309	Non-Detect	Non-Detect	0.00218(J)	Non-Detect	0.62	0.028(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	1/31/2017	Non-Detect	0.554	n/a	n/a	5.01	n/a	26	0.000885(J)	Non-Detect	0.0282	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.266(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	3/21/2017	n/a	n/a	4.9	Non-Detect	5.07	3.6(J)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-8	5/2/2017	Non-Detect	0.548	5.7	Non-Detect	5.13	2.9(J)	25.3	Non-Detect	Non-Detect	0.0309	Non-Detect	Non-Detect	0.00208(J)	Non-Detect	0.853	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	6/7/2017	Non-Detect	0.545	4.1	Non-Detect	5.05	2.9(J)	Non-Detect	Non-Detect	Non-Detect	0.0287	Non-Detect	Non-Detect	0.0022(J)	Non-Detect	0.477	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	9/13/2017	Non-Detect	0.723	4.9	Non-Detect	5.06	3.2(J)	31.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-8	1/24/2018	n/a	n/a	n/a	Non-Detect	5.02	n/a	n/a	Non-Detect	Non-Detect	0.0351	Non-Detect	Non-Detect	0.00258(J)	Non-Detect	0.411(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	5/2/2018	Non-Detect	0.751	4.1	Non-Detect	4.99	2.6(J)	30.7	Non-Detect	Non-Detect	0.0398	Non-Detect	Non-Detect	0.00202(J)	Non-Detect	0.718	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	11/27/2018	Non-Detect	0.743	4.9	Non-Detect	5.06	2.8(J)	35.3	Non-Detect	Non-Detect	0.0388	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.691	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	5/28/2019	Non-Detect	0.789	4.43	Non-Detect	4.92	4.46	28.7	Non-Detect	Non-Detect	0.0412	Non-Detect	Non-Detect	0.00209(J)	Non-Detect	0.311(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	10/2/2019	Non-Detect	0.882	4.32	Non-Detect	4.86	4.96	37.3	Non-Detect	Non-Detect	0.0453	Non-Detect	Non-Detect	0.00223(J)	Non-Detect	0.969	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	3/30/2020	Non-Detect	0.841	4.38	Non-Detect	4.92	4.84	30	Non-Detect	Non-Detect	0.0444	Non-Detect	Non-Detect	0.00275(J)	Non-Detect	0.397(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-8	9/8/2020	Non-Detect	0.981	4.61	Non-Detect	4.35	4.56	38	Non-Detect	Non-Detect	0.0494	Non-Detect	Non-Detect	0.00224(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Analytical Data Summary
Plant Barry Gypsum Pond
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-9	2/23/2016	0.0297(J)	1.15	4.1	0.05(J)	4.56	7.71	25.3	Non-Detect	Non-Detect	0.121	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	4/19/2016	0.0269(J)	1.04	3.11	0.039(J)	4.62	7.85	28	Non-Detect	Non-Detect	0.0926	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3.81872	0.039(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	6/7/2016	0.0271(J)	1.22	3.72	0.085(J)	4.64	7.76	34.7	Non-Detect	Non-Detect	0.0998	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.941	0.085(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	8/30/2016	0.0272(J)	1.18	4.8	0.078(J)	4.58	8.22	26.7	Non-Detect	Non-Detect	0.106	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.98	0.078(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	10/18/2016	Non-Detect	1.12	4.71	0.071(J)	4.58	9.29	32	Non-Detect	Non-Detect	0.106	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.06	0.071(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	1/30/2017	0.0269(J)	1.23	n/a	n/a	4.44	n/a	32.7	0.000859(J)	Non-Detect	0.111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.15	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	3/21/2017	n/a	n/a	5.3	0.05(J)	4.57	7.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.05(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-9	5/2/2017	0.027(J)	1.2	6.6	0.06(J)	4.64	5.7	30.7	Non-Detect	Non-Detect	0.111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.31	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	6/7/2017	Non-Detect	1.17	5.2	0.07(J)	4.58	7.1	Non-Detect	Non-Detect	Non-Detect	0.107	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.12	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	9/13/2017	0.032(J)	1.25	6.5	0.08(J)	4.54	7.3	37.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.08(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-9	1/23/2018	n/a	n/a	n/a	0.07(J)	4.53	n/a	n/a	Non-Detect	Non-Detect	0.122	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.16(U)	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	5/1/2018	0.0302(J)	1.25	5.7	0.07(J)	4.46	7.1	39.3	Non-Detect	Non-Detect	0.139	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.961	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	11/26/2018	0.139	1.61	11	0.07(J)	4.5	7.3	48	Non-Detect	Non-Detect	0.152	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.72	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	5/29/2019	0.141	1.8	8.56	Non-Detect	4.45	12.3	60	Non-Detect	Non-Detect	0.155	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.2	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	10/2/2019	0.116	1.85	8.48	Non-Detect	4.49	11.6	46.7	Non-Detect	Non-Detect	0.16	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	3/31/2020	0.112	1.67	6.87	Non-Detect	4.45	12.5	37.3	Non-Detect	Non-Detect	0.165	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.88	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-9	9/9/2020	0.0873(J)	1.79	7.94	Non-Detect	4.46	10.7	50.7	Non-Detect	Non-Detect	0.17	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.11	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Analytical Data Summary
Plant Barry Gypsum Pond
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-10	2/23/2016	0.0294(J)	0.795	3.57	0.05(J)	4.67	9.29	37.3	Non-Detect	Non-Detect	0.134	Non-Detect	Non-Detect	Non-Detect	0.00247(J)	3	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	4/19/2016	0.0257(J)	0.761	3.12	0.05(J)	4.79	9.92	34	Non-Detect	Non-Detect	0.114	Non-Detect	Non-Detect	Non-Detect	0.00241(J)	3	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	6/7/2016	0.0257(J)	0.799	3.14	0.098(J)	4.73	10	38.7	Non-Detect	Non-Detect	0.118	Non-Detect	Non-Detect	Non-Detect	0.00247(J)	1.03	0.098(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	8/30/2016	0.0317(J)	0.788	2.93	0.089(J)	4.68	11.1	34	Non-Detect	Non-Detect	0.126	Non-Detect	Non-Detect	Non-Detect	0.00251(J)	1.05	0.089(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	10/18/2016	Non-Detect	0.788	2.96	0.092(J)	4.75	11.7	31.3	Non-Detect	Non-Detect	0.127	Non-Detect	Non-Detect	Non-Detect	0.00272(J)	1.36	0.092(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	1/30/2017	0.0243(J)	0.755	n/a	n/a	4.65	n/a	Non-Detect	0.000838(J)	Non-Detect	0.1	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.847	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	3/21/2017	n/a	n/a	4.4	0.06(J)	4.68	9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.06(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-10	5/2/2017	0.0259(J)	0.763	3.7	0.07(J)	4.75	7.9	29.3	Non-Detect	Non-Detect	0.114	Non-Detect	Non-Detect	Non-Detect	0.00205(J)	0.649	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	6/7/2017	Non-Detect	0.706	3.3	0.07(J)	4.7	8.4	36	Non-Detect	Non-Detect	0.0991	Non-Detect	Non-Detect	Non-Detect	0.00201(J)	1.4	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	9/13/2017	0.0394(J)	0.873	5.1	0.08(J)	4.71	8.7	35.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.08(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-10	1/23/2018	n/a	n/a	n/a	0.08(J)	4.6	n/a	n/a	Non-Detect	Non-Detect	0.119	Non-Detect	Non-Detect	Non-Detect	0.00229(J)	1.36(U)	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	5/1/2018	0.0338(J)	1.05	4	0.09(J)	4.61	10	32	Non-Detect	Non-Detect	0.132	Non-Detect	Non-Detect	Non-Detect	0.00216(J)	1.03	0.09(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	11/26/2018	0.0484(J)	0.922	3.8	0.08(J)	4.65	8.3	31.3	Non-Detect	Non-Detect	0.112	Non-Detect	Non-Detect	Non-Detect	0.00205(J)	1.04	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	5/29/2019	0.0669(J)	1.07	4.34	Non-Detect	4.54	11.1	43.3	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	0.00261(J)	0.548(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	10/2/2019	0.0671(J)	1.32	4.34	Non-Detect	4.6	13.2	36	Non-Detect	Non-Detect	0.136	Non-Detect	Non-Detect	Non-Detect	0.00262(J)	2.19	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	3/31/2020	0.0442(J)	0.98	3.89	Non-Detect	4.55	11.1	33.3	Non-Detect	Non-Detect	0.122	Non-Detect	Non-Detect	Non-Detect	0.00238(J)	1.01	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-10	9/9/2020	0.0509(J)	1.1	4.11	Non-Detect	4.58	9.28	39.3	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	0.00241(J)	1.32	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Analytical Data Summary
Plant Barry Gypsum Pond
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-PZ-11	3/31/2020	0.0864(J)	0.663	4.13	Non-Detect	4.91	3.16	Non-Detect	Non-Detect	Non-Detect	0.0499	Non-Detect	Non-Detect	0.00249(J)	Non-Detect	0.968	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-PZ-11	9/8/2020	0.0638(J)	0.724	3.96	Non-Detect	4.12	3.61	29.3	Non-Detect	Non-Detect	0.05	Non-Detect	Non-Detect	0.00253(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Appendix B

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 Gypsum Pond

2020 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).

Rain showers were present when pumping and sampling wells MW-9 and MW-10.

Field quality control procedures were performed as follows:

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

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

Analytical Report

Alabama Power

Sample Group : WMWBARG_1270

Project/Site : Barry Gypsum
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Dyer

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

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

Alabama Power

April 22, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on April 01, 2020.
All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2020

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

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.04.24 13:39:17 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.04.24 14:33:20 -05'00'

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

Case Narrative

Alabama Power

Metals ICP

Barry Gypsum

WMWBARG_1270

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

Sample ID	Batch ID	Project ID
BA06216	669816	WMWBARG_1270
BA06217	669816	WMWBARG_1270
BA06218	669816	WMWBARG_1270
BA06219	669816	WMWBARG_1270
BA06220	669816	WMWBARG_1270
BA06221	669816	WMWBARG_1270
BA06222	669816	WMWBARG_1270
BA06223	669816	WMWBARG_1270
BA06224	669816	WMWBARG_1270
BA06225	669816	WMWBARG_1270
BA06226	669817	WMWBARG_1270
BA06227	669817	WMWBARG_1270
BA06228	669817	WMWBARG_1270
BA06229	669817	WMWBARG_1270
BA06230	669817	WMWBARG_1270
BA06231	669817	WMWBARG_1270

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

General Quality Control Procedures:

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

- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Metals ICPMS

Barry Gypsum

WMWBARG_1270

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

Sample ID	Batch ID	Project ID
BA06216	670041	WMWBARG_1270
BA06217	670041	WMWBARG_1270
BA06218	670041	WMWBARG_1270
BA06219	670041	WMWBARG_1270
BA06220	670041	WMWBARG_1270
BA06221	670041	WMWBARG_1270
BA06222	670041	WMWBARG_1270
BA06223	670041	WMWBARG_1270
BA06224	670041	WMWBARG_1270
BA06225	670041	WMWBARG_1270
BA06226	670042	WMWBARG_1270
BA06227	670042	WMWBARG_1270
BA06228	670042	WMWBARG_1270
BA06229	670042	WMWBARG_1270
BA06230	670042	WMWBARG_1270
BA06231	670042	WMWBARG_1270

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Mercury

Barry Gypsum

WMWBARG_1270

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

Sample ID	Batch ID	Project ID
BA06216	669958	WMWBARG_1270
BA06217	669958	WMWBARG_1270
BA06218	669958	WMWBARG_1270
BA06219	669958	WMWBARG_1270
BA06220	669958	WMWBARG_1270
BA06221	669958	WMWBARG_1270
BA06222	669958	WMWBARG_1270
BA06223	669958	WMWBARG_1270
BA06224	669958	WMWBARG_1270
BA06225	669958	WMWBARG_1270
BA06226	669659	WMWBARG_1270
BA06227	669959	WMWBARG_1270
BA06228	669959	WMWBARG_1270
BA06229	669959	WMWBARG_1270
BA06230	669959	WMWBARG_1270
BA06231	669959	WMWBARG_1270

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

TDS

Barry Gypsum

WMWBARG_1270

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

Sample ID	Batch ID	Project ID
BA06216	669946	WMWBARG_1270
BA06217	669946	WMWBARG_1270
BA06218	669946	WMWBARG_1270
BA06219	669946	WMWBARG_1270
BA06220	669946	WMWBARG_1270
BA06221	669946	WMWBARG_1270
BA06222	669946	WMWBARG_1270
BA06223	669946	WMWBARG_1270
BA06224	669946	WMWBARG_1270
BA06225	669947	WMWBARG_1270
BA06226	669947	WMWBARG_1270
BA06227	669947	WMWBARG_1270
BA06228	669947	WMWBARG_1270
BA06229	669947	WMWBARG_1270
BA06230	669947	WMWBARG_1270
BA06231	669947	WMWBARG_1270

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BA06220
  - BA06223
  - BA06231

Case Narrative

Anions

Barry Gypsum

WMWBARG_1270

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

Sample ID	Batch ID	Project ID
BA06216	670136, 670138, & 670140	WMWBARG_1270
BA06217	670136, 670138, & 670140	WMWBARG_1270
BA06218	670136, 670138, & 670140	WMWBARG_1270
BA06219	670136, 670138, & 670140	WMWBARG_1270
BA06220	670136, 670138, & 670140	WMWBARG_1270
BA06221	670136, 670138, & 670140	WMWBARG_1270
BA06222	670136, 670138, & 670140	WMWBARG_1270
BA06223	670136, 670138, & 670140	WMWBARG_1270
BA06224	670136, 670138, & 670140	WMWBARG_1270
BA06225	670136, 670138, & 670140	WMWBARG_1270
BA06226	670137, 670139, & 670141	WMWBARG_1270
BA06227	670137, 670139, & 670141	WMWBARG_1270
BA06228	670137, 670139, & 670141	WMWBARG_1270
BA06229	670137, 670139, & 670141	WMWBARG_1270
BA06230	670137, 670139, & 670141	WMWBARG_1270
BA06231	670137, 670139, & 670141	WMWBARG_1270

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

7. All samples were analyzed without dilution.

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: 3/30/20 14:52
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06216

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 10:43		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 10:43		1.015	1.32	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 10:43		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:32		1.015	0.0788	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 11:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	39.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:03	4/6/20 11:03		1	10.5	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:38	4/3/20 12:38		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 08:53	4/3/20 08:53		1	4.29	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/30/20 14:48	3/30/20 14:48			52.94	uS/cm			FA
pH	3/30/20 14:48	3/30/20 14:48			4.91	SU			FA
Temperature	3/30/20 14:48	3/30/20 14:48			21.18	C			FA
Turbidity	3/30/20 14:48	3/30/20 14:48			7.19	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/30/20 14:52
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA06216

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/30/20 14:52
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA06216

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

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 DUP

Location Code: WMWBARG
Collected: 3/30/20 14:52
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06217

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 10:46		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 10:46		1.015	1.31	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 10:46		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:35		1.015	0.0772	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:35		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 11:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	36.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:04	4/6/20 11:04		1	10.3	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:39	4/3/20 12:39		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 08:54	4/3/20 08:54		1	4.47	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/30/20 14:48	3/30/20 14:48			52.94	uS/cm			FA
pH	3/30/20 14:48	3/30/20 14:48			4.91	SU			FA
Temperature	3/30/20 14:48	3/30/20 14:48			21.18	C			FA
Turbidity	3/30/20 14:48	3/30/20 14:48			7.19	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/30/20 14:52
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: BA06217

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/30/20 14:52
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: BA06217

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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: 3/30/20 15:42
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06218

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 10:49		1.015	0.304	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:00	4/6/20 10:49		1.015	7.56	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 10:49		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:37		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:37		1.015	0.142	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:37		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:37		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:37		1.015	0.00273	mg/L	0.002	0.01	J
* Cobalt, Total	4/2/20 08:15	4/2/20 17:37		1.015	0.00310	mg/L	0.002	0.005	J
* Lead, Total	4/2/20 08:15	4/2/20 17:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:37		1.015	0.00658	mg/L	0.002	0.01	J
* Thallium, Total	4/2/20 08:15	4/2/20 17:37		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 11:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	58.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:06	4/6/20 11:06		1	4.95	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:40	4/3/20 12:40		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 08:55	4/3/20 08:55		1	21.8	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/30/20 15:40	3/30/20 15:40			97.56	uS/cm			FA
pH	3/30/20 15:40	3/30/20 15:40			5.51	SU			FA
Temperature	3/30/20 15:40	3/30/20 15:40			22.17	C			FA
Turbidity	3/30/20 15:40	3/30/20 15:40			3.67	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/30/20 15:42
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA06218

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/30/20 15:42
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA06218

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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: 3/30/20 16:32
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06219

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 10:52		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 10:52		1.015	1.26	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 10:52		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:40		1.015	0.0718	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:40		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	32.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:07	4/6/20 11:07		1	3.45	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:41	4/3/20 12:41		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 08:57	4/3/20 08:57		1	6.34	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/30/20 16:28	3/30/20 16:28			41.20	uS/cm			FA
pH	3/30/20 16:28	3/30/20 16:28			4.83	SU			FA
Temperature	3/30/20 16:28	3/30/20 16:28			22.20	C			FA
Turbidity	3/30/20 16:28	3/30/20 16:28			1.65	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/30/20 16:32
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA06219

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/30/20 16:32
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA06219

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Field Blank

Location Code: WMWBARGFB
Collected: 3/30/20 16:55
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06220

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 10:55		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 10:55		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/3/20 09:00	4/6/20 10:55		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:43		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:08	4/6/20 11:08		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:42	4/3/20 12:42		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 08:58	4/3/20 08:58		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/30/20 16:55
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06220

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 3/30/20 16:55
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06220

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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: 3/30/20 17:13
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06221

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 10:58		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 10:58		1.015	0.841	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 10:58		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:46		1.015	0.0444	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:46		1.015	0.00275	mg/L	0.002	0.01	J
* Cobalt, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:46		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	30.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:09	4/6/20 11:09		1	4.38	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:44	4/3/20 12:44		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 08:59	4/3/20 08:59		1	4.84	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/30/20 17:10	3/30/20 17:10			41.44	uS/cm			FA
pH	3/30/20 17:10	3/30/20 17:10			4.92	SU			FA
Temperature	3/30/20 17:10	3/30/20 17:10			21.14	C			FA
Turbidity	3/30/20 17:10	3/30/20 17:10			4.57	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/30/20 17:13
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA06221

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/30/20 17:13
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA06221

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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: 3/31/20 08:45
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06222

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:01		1.015	0.112	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:00	4/6/20 11:01		1.015	1.67	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:01		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:48		1.015	0.165	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:48		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	37.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:10	4/6/20 11:10		1	6.87	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:45	4/3/20 12:45		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:00	4/3/20 09:00		1	12.5	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 08:41	3/31/20 08:41			74.30	uS/cm			FA
pH	3/31/20 08:41	3/31/20 08:41			4.45	SU			FA
Temperature	3/31/20 08:41	3/31/20 08:41			21.25	C			FA
Turbidity	3/31/20 08:41	3/31/20 08:41			2.66	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 08:45
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA06222

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 08:45
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA06222

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Field Blank

Location Code: WMWBARGFB
Collected: 3/31/20 11:10
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06223

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:04		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 11:04		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/3/20 09:00	4/6/20 11:04		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:51		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:12	4/6/20 11:12		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:46	4/3/20 12:46		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:01	4/3/20 09:01		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 11:10
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06223

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 3/31/20 11:10
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06223

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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: 3/31/20 11:33
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06224

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:07		1.015	0.0442	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:00	4/6/20 11:07		1.015	0.980	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:07		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:53		1.015	0.122	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:53		1.015	0.00238	mg/L	0.002	0.005	J
* Lead, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:53		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	33.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:13	4/6/20 11:13		1	3.89	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:47	4/3/20 12:47		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:03	4/3/20 09:03		1	11.1	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 11:28	3/31/20 11:28			54.91	uS/cm			FA
pH	3/31/20 11:28	3/31/20 11:28			4.55	SU			FA
Temperature	3/31/20 11:28	3/31/20 11:28			20.25	C			FA
Turbidity	3/31/20 11:28	3/31/20 11:28			7.28	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 11:33
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA06224

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 11:33
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA06224

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06224	Solids, Dissolved	mg/L	1.00	25			32.0	55.0	40 to 60			1.99	5
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10 DUP

Location Code: WMWBARG
Collected: 3/31/20 11:33
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06225

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:10		1.015	0.0438	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:00	4/6/20 11:10		1.015	0.979	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:10		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 17:56		1.015	0.120	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 17:56		1.015	0.00239	mg/L	0.002	0.005	J
* Lead, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 17:56		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	33.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:14	4/6/20 11:14		1	3.79	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 12:48	4/3/20 12:48		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:04	4/3/20 09:04		1	11.1	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 11:28	3/31/20 11:28			54.91	uS/cm			FA
pH	3/31/20 11:28	3/31/20 11:28			4.55	SU			FA
Temperature	3/31/20 11:28	3/31/20 11:28			20.25	C			FA
Turbidity	3/31/20 11:28	3/31/20 11:28			7.28	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 11:33
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA06225

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.103	0.101	0.0994	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA06225	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.110	0.110	0.108	0.085 to 0.115	110	70 to 130	0.00	20
BA06225	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.101	0.100	0.0980	0.085 to 0.115	101	70 to 130	0.995	20
BA06225	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06225	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.202	0.202	0.201	0.17 to 0.23	101	70 to 130	0.00	20
BA06225	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA06225	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.219	0.223	0.104	0.085 to 0.115	99.0	70 to 130	1.81	20
BA06225	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0948	0.0915	0.0971	0.085 to 0.115	94.8	70 to 130	3.54	20
BA06225	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.98	6.02	5.12	4.25 to 5.75	100	70 to 130	0.667	20
BA06225	Mercury, Total by CVAA	mg/L	0.000125	0.0005	0.004	0.00407	0.00401	0.00404	0.0034 to 0.0046	102	70 to 130	1.49	20
BA06225	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	0.922	20
BA06225	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.106	0.107	0.085 to 0.115	106	70 to 130	0.00	20
BA06225	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.05	1.05	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06225	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.111	0.111	0.108	0.085 to 0.115	109	70 to 130	0.00	20

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 11:33
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA06225

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06225	Fluoride	mg/L	0.0378	0.05	2.50	2.29	0.0373	2.63	2.25 to 2.75	91.6	80 to 120	0.00	20
BA06225	Chloride	mg/L	-0.00574	0.50	10.0	15.6	3.87	9.93	9 to 11	118	80 to 120	2.09	20
BA06225	Sulfate	mg/L	-0.559	0.50	20.0	30.4	11.1	19.7	18 to 22	96.5	80 to 120	0.00	20
BA06230	Solids, Dissolved	mg/L	1.00	25			52.7	55.0	40 to 60			0.566	5

Comments:

Reported: 4/22/2020
Version: 3.1
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-11

Location Code: WMWBARG
Collected: 3/31/20 12:42
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06226

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:25		1.015	0.0864	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:00	4/6/20 11:25		1.015	0.663	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:25		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 18:12		1.015	0.0499	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 18:12		1.015	0.00249	mg/L	0.002	0.01	J
* Cobalt, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 18:12		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:26	4/6/20 11:26		1	4.13	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:00	4/3/20 13:00		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:16	4/3/20 09:16		1	3.16	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 12:39	3/31/20 12:39			33.62	uS/cm			FA
pH	3/31/20 12:39	3/31/20 12:39			4.91	SU			FA
Temperature	3/31/20 12:39	3/31/20 12:39			22.99	C			FA
Turbidity	3/31/20 12:39	3/31/20 12:39			1.74	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 12:42
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA06226

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.104	0.107	0.085 to 0.115	106	70 to 130	1.90	20
BA06231	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.107	0.107	0.109	0.085 to 0.115	107	70 to 130	0.00	20
BA06231	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.108	0.106	0.108	0.085 to 0.115	108	70 to 130	1.87	20
BA06231	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.0998	0.101	0.0980	0.085 to 0.115	99.8	70 to 130	1.20	20
BA06231	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.105	0.103	0.104	0.085 to 0.115	105	70 to 130	1.92	20
BA06231	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.01	1.01	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06231	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.109	0.106	0.108	0.085 to 0.115	109	70 to 130	2.79	20
BA06231	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.00	20
BA06231	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0914	0.0906	0.0971	0.085 to 0.115	91.4	70 to 130	0.879	20
BA06231	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.106	0.105	0.106	0.085 to 0.115	106	70 to 130	0.948	20
BA06231	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.199	0.199	0.201	0.17 to 0.23	99.5	70 to 130	0.00	20
BA06231	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.13	5.12	5.12	4.25 to 5.75	103	70 to 130	0.195	20
BA06231	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.102	0.105	0.101	0.085 to 0.115	102	70 to 130	2.90	20
BA06231	Mercury, Total by CVAA	mg/L	0.000139	0.0005	0.004	0.00405	0.00413	0.00402	0.0034 to 0.0046	101	70 to 130	1.96	20
BA06231	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.101	0.103	0.0994	0.085 to 0.115	101	70 to 130	1.96	20

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 12:42
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA06226

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Sulfate	mg/L	-0.519	0.50	20.0	19.3	-0.506	19.6	18 to 22	96.5	80 to 120	0.00	20
BA06231	Fluoride	mg/L	0.0251	0.05	2.50	2.60	0.0209	2.61	2.25 to 2.75	104	80 to 120	0.00	20
BA06230	Solids, Dissolved	mg/L	1.00	25			52.7	55.0	40 to 60			0.566	5
BA06231	Chloride	mg/L	-0.00763	0.50	10.0	11.1	0.0594	9.92	9 to 11	111	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-4

Location Code: WMWBARG
Collected: 3/31/20 13:42
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06227

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:28		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 11:28		1.015	1.78	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:28		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 18:15		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 18:15		1.015	0.00170	mg/L	0.001	0.005	J
* Barium, Total	4/2/20 08:15	4/2/20 18:15		1.015	0.129	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 18:15		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 18:15		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 18:15		1.015	0.00604	mg/L	0.002	0.01	J
* Cobalt, Total	4/2/20 08:15	4/2/20 18:15		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 18:15		1.015	0.00126	mg/L	0.001	0.005	J
* Molybdenum, Total	4/2/20 08:15	4/2/20 18:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 18:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 18:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	36.7	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:27	4/6/20 11:27		1	3.34	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:01	4/3/20 13:01		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:17	4/3/20 09:17		1	10.8	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 13:39	3/31/20 13:39			51.70	uS/cm			FA
pH	3/31/20 13:39	3/31/20 13:39			4.51	SU			FA
Temperature	3/31/20 13:39	3/31/20 13:39			21.07	C			FA
Turbidity	3/31/20 13:39	3/31/20 13:39			7.33	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 13:42
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA06227

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.104	0.107	0.085 to 0.115	106	70 to 130	1.90	20
BA06231	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.13	5.12	5.12	4.25 to 5.75	103	70 to 130	0.195	20
BA06231	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.102	0.105	0.101	0.085 to 0.115	102	70 to 130	2.90	20
BA06231	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.105	0.103	0.104	0.085 to 0.115	105	70 to 130	1.92	20
BA06231	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.01	1.01	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06231	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.109	0.106	0.108	0.085 to 0.115	109	70 to 130	2.79	20
BA06231	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.00	20
BA06231	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0914	0.0906	0.0971	0.085 to 0.115	91.4	70 to 130	0.879	20
BA06231	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.106	0.105	0.106	0.085 to 0.115	106	70 to 130	0.948	20
BA06231	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.199	0.199	0.201	0.17 to 0.23	99.5	70 to 130	0.00	20
BA06231	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.107	0.107	0.109	0.085 to 0.115	107	70 to 130	0.00	20
BA06231	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.108	0.106	0.108	0.085 to 0.115	108	70 to 130	1.87	20
BA06231	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.0998	0.101	0.0980	0.085 to 0.115	99.8	70 to 130	1.20	20
BA06231	Mercury, Total by CVAA	mg/L	0.000139	0.0005	0.004	0.00405	0.00413	0.00402	0.0034 to 0.0046	101	70 to 130	1.96	20
BA06231	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.101	0.103	0.0994	0.085 to 0.115	101	70 to 130	1.96	20

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 13:42
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA06227

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Fluoride	mg/L	0.0251	0.05	2.50	2.60	0.0209	2.61	2.25 to 2.75	104	80 to 120	0.00	20
BA06231	Sulfate	mg/L	-0.519	0.50	20.0	19.3	-0.506	19.6	18 to 22	96.5	80 to 120	0.00	20
BA06230	Solids, Dissolved	mg/L	1.00	25			52.7	55.0	40 to 60			0.566	5
BA06231	Chloride	mg/L	-0.00763	0.50	10.0	11.1	0.0594	9.92	9 to 11	111	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-3

Location Code: WMWBARG
Collected: 3/31/20 14:30
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06228

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:31		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 11:31		1.015	1.92	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:31		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 18:17		1.015	0.0927	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 18:17		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	39.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:29	4/6/20 11:29		1	3.47	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:03	4/3/20 13:03		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:18	4/3/20 09:18		1	7.98	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 14:27	3/31/20 14:27			52.07	uS/cm			FA
pH	3/31/20 14:27	3/31/20 14:27			4.40	SU			FA
Temperature	3/31/20 14:27	3/31/20 14:27			20.30	C			FA
Turbidity	3/31/20 14:27	3/31/20 14:27			4.95	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 14:30
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA06228

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.104	0.107	0.085 to 0.115	106	70 to 130	1.90	20
BA06231	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.105	0.103	0.104	0.085 to 0.115	105	70 to 130	1.92	20
BA06231	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.01	1.01	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06231	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.109	0.106	0.108	0.085 to 0.115	109	70 to 130	2.79	20
BA06231	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.00	20
BA06231	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.13	5.12	5.12	4.25 to 5.75	103	70 to 130	0.195	20
BA06231	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.102	0.105	0.101	0.085 to 0.115	102	70 to 130	2.90	20
BA06231	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0914	0.0906	0.0971	0.085 to 0.115	91.4	70 to 130	0.879	20
BA06231	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.106	0.105	0.106	0.085 to 0.115	106	70 to 130	0.948	20
BA06231	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.199	0.199	0.201	0.17 to 0.23	99.5	70 to 130	0.00	20
BA06231	Mercury, Total by CVAA	mg/L	0.000139	0.0005	0.004	0.00405	0.00413	0.00402	0.0034 to 0.0046	101	70 to 130	1.96	20
BA06231	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.101	0.103	0.0994	0.085 to 0.115	101	70 to 130	1.96	20
BA06231	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.107	0.107	0.109	0.085 to 0.115	107	70 to 130	0.00	20
BA06231	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.108	0.106	0.108	0.085 to 0.115	108	70 to 130	1.87	20
BA06231	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.0998	0.101	0.0980	0.085 to 0.115	99.8	70 to 130	1.20	20

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 14:30
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA06228

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Sulfate	mg/L	-0.519	0.50	20.0	19.3	-0.506	19.6	18 to 22	96.5	80 to 120	0.00	20
BA06231	Fluoride	mg/L	0.0251	0.05	2.50	2.60	0.0209	2.61	2.25 to 2.75	104	80 to 120	0.00	20
BA06230	Solids, Dissolved	mg/L	1.00	25			52.7	55.0	40 to 60			0.566	5
BA06231	Chloride	mg/L	-0.00763	0.50	10.0	11.1	0.0594	9.92	9 to 11	111	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-2

Location Code: WMWBARG
Collected: 3/31/20 15:32
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06229

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:34		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 11:34		1.015	1.43	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:34		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 18:20		1.015	0.171	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 18:20		1.015	0.00224	mg/L	0.002	0.005	J
* Lead, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 18:20		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	40.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:30	4/6/20 11:30		1	2.72	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:04	4/3/20 13:04		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:20	4/3/20 09:20		1	6.83	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 15:28	3/31/20 15:28			59.75	uS/cm			FA
pH	3/31/20 15:28	3/31/20 15:28			4.60	SU			FA
Temperature	3/31/20 15:28	3/31/20 15:28			19.87	C			FA
Turbidity	3/31/20 15:28	3/31/20 15:28			6.32	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 15:32
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA06229

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.104	0.107	0.085 to 0.115	106	70 to 130	1.90	20
BA06231	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.105	0.103	0.104	0.085 to 0.115	105	70 to 130	1.92	20
BA06231	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.01	1.01	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06231	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.109	0.106	0.108	0.085 to 0.115	109	70 to 130	2.79	20
BA06231	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.00	20
BA06231	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.107	0.107	0.109	0.085 to 0.115	107	70 to 130	0.00	20
BA06231	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.108	0.106	0.108	0.085 to 0.115	108	70 to 130	1.87	20
BA06231	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.0998	0.101	0.0980	0.085 to 0.115	99.8	70 to 130	1.20	20
BA06231	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.13	5.12	5.12	4.25 to 5.75	103	70 to 130	0.195	20
BA06231	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.102	0.105	0.101	0.085 to 0.115	102	70 to 130	2.90	20
BA06231	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0914	0.0906	0.0971	0.085 to 0.115	91.4	70 to 130	0.879	20
BA06231	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.106	0.105	0.106	0.085 to 0.115	106	70 to 130	0.948	20
BA06231	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.199	0.199	0.201	0.17 to 0.23	99.5	70 to 130	0.00	20
BA06231	Mercury, Total by CVAA	mg/L	0.000139	0.0005	0.004	0.00405	0.00413	0.00402	0.0034 to 0.0046	101	70 to 130	1.96	20
BA06231	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.101	0.103	0.0994	0.085 to 0.115	101	70 to 130	1.96	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 15:32
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA06229

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Fluoride	mg/L	0.0251	0.05	2.50	2.60	0.0209	2.61	2.25 to 2.75	104	80 to 120	0.00	20
BA06231	Sulfate	mg/L	-0.519	0.50	20.0	19.3	-0.506	19.6	18 to 22	96.5	80 to 120	0.00	20
BA06230	Solids, Dissolved	mg/L	1.00	25			52.7	55.0	40 to 60			0.566	5
BA06231	Chloride	mg/L	-0.00763	0.50	10.0	11.1	0.0594	9.92	9 to 11	111	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-1

Location Code: WMWBARG
Collected: 3/31/20 16:10
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06230

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:37		1.015	0.157	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:00	4/6/20 11:37		1.015	1.96	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:00	4/6/20 11:37		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 18:23		1.015	0.176	mg/L	0.002	0.01	
* Beryllium, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 18:23		1.015	0.0123	mg/L	0.002	0.005	
* Lead, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 18:23		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	53.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:31	4/6/20 11:31		1	3.17	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:05	4/3/20 13:05		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:21	4/3/20 09:21		1	24.3	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: AWG***								
Conductivity	3/31/20 16:08	3/31/20 16:08			86.94	uS/cm			FA
pH	3/31/20 16:08	3/31/20 16:08			4.64	SU			FA
Temperature	3/31/20 16:08	3/31/20 16:08			20.55	C			FA
Turbidity	3/31/20 16:08	3/31/20 16:08			2.1	NTU			FA

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 16:10
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA06230

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.104	0.107	0.085 to 0.115	106	70 to 130	1.90	20
BA06231	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.13	5.12	5.12	4.25 to 5.75	103	70 to 130	0.195	20
BA06231	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.102	0.105	0.101	0.085 to 0.115	102	70 to 130	2.90	20
BA06231	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.107	0.107	0.109	0.085 to 0.115	107	70 to 130	0.00	20
BA06231	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.108	0.106	0.108	0.085 to 0.115	108	70 to 130	1.87	20
BA06231	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.0998	0.101	0.0980	0.085 to 0.115	99.8	70 to 130	1.20	20
BA06231	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0914	0.0906	0.0971	0.085 to 0.115	91.4	70 to 130	0.879	20
BA06231	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.106	0.105	0.106	0.085 to 0.115	106	70 to 130	0.948	20
BA06231	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.199	0.199	0.201	0.17 to 0.23	99.5	70 to 130	0.00	20
BA06231	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.105	0.103	0.104	0.085 to 0.115	105	70 to 130	1.92	20
BA06231	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.01	1.01	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06231	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.109	0.106	0.108	0.085 to 0.115	109	70 to 130	2.79	20
BA06231	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.00	20
BA06231	Mercury, Total by CVAA	mg/L	0.000139	0.0005	0.004	0.00405	0.00413	0.00402	0.0034 to 0.0046	101	70 to 130	1.96	20
BA06231	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.101	0.103	0.0994	0.085 to 0.115	101	70 to 130	1.96	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 3/31/20 16:10
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA06230

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Sulfate	mg/L	-0.519	0.50	20.0	19.3	-0.506	19.6	18 to 22	96.5	80 to 120	0.00	20
BA06231	Fluoride	mg/L	0.0251	0.05	2.50	2.60	0.0209	2.61	2.25 to 2.75	104	80 to 120	0.00	20
BA06230	Solids, Dissolved	mg/L	1.00	25			52.7	55.0	40 to 60			0.566	5
BA06231	Chloride	mg/L	-0.00763	0.50	10.0	11.1	0.0594	9.92	9 to 11	111	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Equipment Blank

Location Code: WMWBARGEB
Collected: 3/31/20 16:35
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06231

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:00	4/6/20 11:40		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:00	4/6/20 11:40		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/3/20 09:00	4/6/20 11:40		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/2/20 08:15	4/2/20 18:25		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/6/20 12:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/3/20 13:36	4/7/20 11:40		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 11:32	4/6/20 11:32		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:06	4/3/20 13:06		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E	***Analyst: JCC***								
* Sulfate	4/3/20 09:22	4/3/20 09:22		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 4/22/2020
Version: 3.1
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: 3/31/20 16:35
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: BA06231

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Selenium, Total	mg/L	0.0000368	0.00066	0.10	0.106	0.104	0.107	0.085 to 0.115	106	70 to 130	1.90	20
BA06231	Arsenic, Total	mg/L	0.00000389	0.0001474	0.10	0.107	0.107	0.109	0.085 to 0.115	107	70 to 130	0.00	20
BA06231	Cobalt, Total	mg/L	-0.00000251	0.0001474	0.10	0.108	0.106	0.108	0.085 to 0.115	108	70 to 130	1.87	20
BA06231	Antimony, Total	mg/L	0.000198	0.00066	0.10	0.0998	0.101	0.0980	0.085 to 0.115	99.8	70 to 130	1.20	20
BA06231	Calcium, Total	mg/L	-0.0134	0.1518	5.00	5.13	5.12	5.12	4.25 to 5.75	103	70 to 130	0.195	20
BA06231	Thallium, Total	mg/L	-0.00000233	0.0001474	0.10	0.102	0.105	0.101	0.085 to 0.115	102	70 to 130	2.90	20
BA06231	Barium, Total	mg/L	-0.0000342	0.0002	0.10	0.105	0.103	0.104	0.085 to 0.115	105	70 to 130	1.92	20
BA06231	Boron, Total	mg/L	0.00498	0.0650254	1.00	1.01	1.01	1.01	0.85 to 1.15	101	70 to 130	0.00	20
BA06231	Chromium, Total	mg/L	0.0000739	0.00044	0.10	0.109	0.106	0.108	0.085 to 0.115	109	70 to 130	2.79	20
BA06231	Molybdenum, Total	mg/L	0.00000439	0.0001474	0.10	0.104	0.104	0.102	0.085 to 0.115	104	70 to 130	0.00	20
BA06231	Mercury, Total by CVAA	mg/L	0.000139	0.0005	0.004	0.00405	0.00413	0.00402	0.0034 to 0.0046	101	70 to 130	1.96	20
BA06231	Lead, Total	mg/L	0.00000088	0.0001474	0.10	0.101	0.103	0.0994	0.085 to 0.115	101	70 to 130	1.96	20
BA06231	Beryllium, Total	mg/L	0.0000141	0.00088	0.10	0.0914	0.0906	0.0971	0.085 to 0.115	91.4	70 to 130	0.879	20
BA06231	Cadmium, Total	mg/L	0.00000005	0.0001474	0.10	0.106	0.105	0.106	0.085 to 0.115	106	70 to 130	0.948	20
BA06231	Lithium, Total	mg/L	-0.0000387	0.0154	0.20	0.199	0.199	0.201	0.17 to 0.23	99.5	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARGEB
Sample Date: 3/31/20 16:35
Customer ID:
Delivery Date: 4/1/20 14:45

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: BA06231

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06231	Sulfate	mg/L	-0.519	0.50	20.0	19.3	-0.506	19.6	18 to 22	96.5	80 to 120	0.00	20
BA06231	Fluoride	mg/L	0.0251	0.05	2.50	2.60	0.0209	2.61	2.25 to 2.75	104	80 to 120	0.00	20
BA06230	Solids, Dissolved	mg/L	1.00	25			52.7	55.0	40 to 60			0.566	5
BA06231	Chloride	mg/L	-0.00763	0.50	10.0	11.1	0.0594	9.92	9 to 11	111	80 to 120	0.00	20

Comments:

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

Definitions

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

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.

Chain of Custody Groundwater

APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab

☑ Lab Complete

Lab ETA 04/01/2020 12:30

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

Bottles

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	03/30/2020	14:52	4	Groundwater		BA06216
MW-7DUP	03/30/2020	14:52	4	Sample Duplicate		BA06217
MW-6	03/30/2020	15:42	4	Groundwater		BA06218
MW-5	03/30/2020	16:32	4	Groundwater		BA06219
FB-1	03/30/2020	16:55	4	Field Blank		BA06220
MW-8	03/30/2020	17:13	4	Groundwater		BA06221
MW-9	03/31/2020	08:45	4	Groundwater		BA06222
FB-2	03/31/2020	11:10	4	Field Blank		BA06223
MW-10	03/31/2020	11:33	4	Groundwater		BA06224
MW-10DUP	03/31/2020	11:33	4	Sample Duplicate		BA06225
MW-11	03/31/2020	12:42	4	Groundwater		BA06226
MW-4	03/31/2020	13:42	4	Groundwater		BA06227
MW-3	03/31/2020	14:30	4	Groundwater		BA06228
MW-2	03/31/2020	15:32	4	Groundwater		BA06229
MW-1	03/31/2020	16:10	4	Groundwater		BA06230
EB-1	03/31/2020	16:35	4	Equipment Blank		BA06231

Relinquished By	Received By	Date/Time
[signature]	[signature]	04/01/2020 09:23
[signature]	[signature]	04/01/2020 11:26

SmarTroll ID	7586-41442-5-1
Turbidity ID	5160-26211-1-1
Sample Event	1270

All metals and radiological bottles have pH < 2 ☑

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43572-2-1

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 04/01/2020 12:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	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: Matrix Spike Duplicate collected @ MW-6

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	03/30/2020	14:52	1	Groundwater		BA06232
MW-7DUP	03/30/2020	14:52	1	Sample Duplicate		BA06233
MW-6	03/30/2020	15:42	3	Groundwater		BA06234
MW-5	03/30/2020	16:32	1	Groundwater		BA06235
FB-1	03/30/2020	16:55	1	Field Blank		BA06236
MW-8	03/30/2020	17:13	1	Groundwater		BA06237
MW-9	03/31/2020	08:45	1	Groundwater		BA06238
FB-2	03/31/2020	11:10	1	Field Blank		BA06239
MW-10	03/31/2020	11:33	1	Groundwater		BA06240
MW-10DUP	03/31/2020	11:33	1	Sample Duplicate		BA06241
MW-11	03/31/2020	12:42	1	Groundwater		BA06242
MW-4	03/31/2020	13:42	1	Groundwater		BA06243
MW-3	03/31/2020	14:30	1	Groundwater		BA06244
MW-2	03/31/2020	15:32	1	Groundwater		BA06245
MW-1	03/31/2020	16:10	1	Groundwater		BA06246
EB-1	03/31/2020	16:35	1	Equipment Blank		BA06247

Relinquished By	Received By	Date/Time
		04/01/2020 09:23
		04/01/2020 11:25

SmarTroll ID	7586-41442-5-1
Turbidity ID	5160-26211-1-1
Sample Event	1270

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7901-43572-2-1

Bottles/Pre-Preserved Bottles are provided by the GTL

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-186364-1
Laboratory Sample Delivery Group: Barry Gypsum 1270
Client Project/Site: CCR Plant Barry
Revision: 1

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

Attn: Laura Midkiff

Authorized for release by:
5/6/2020 11:41:08 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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

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Job ID: 400-186364-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-186364-1

RAD

Method 9315: Radium-226 Prep Batch 160-467280. The matrix spike duplicate (MSD) recoveries (74%) for preparation batch 160-467280 and analytical batch 160-469282 were outside control limits (75%-138%). All other QC were within acceptable limits. The data is reported with this narrative.

Method 9315: Radium-226 Prep Batch 160-467280. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06246 MW-1 (400-186364-15), BA06247 EB-1 (400-186364-16), (LCS 160-467280/1-A), (MB 160-467280/23-A), (400-186365-A-5-A), (400-186365-A-5-B MS) and (400-186365-A-5-C MSD)

Methods 9315: Radium-226 Prep Batch 160-467278. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06232 MW-7 (400-186364-1), BA06233 MW-7 DUP (400-186364-2), BA06234 MW-6 (400-186364-3), BA06234 MW-6 (400-186364-3[MS]), BA06234 MW-6 (400-186364-3[MSD]), BA06235 MW-5 (400-186364-4), BA06236 FB-1 (400-186364-5), BA06237 MW-8 (400-186364-6), BA06238 MW-9 (400-186364-7), BA06239 FB-2 (400-186364-8), BA06240 MW-10 (400-186364-9), BA06241 MW-10 DUP (400-186364-10), BA06242 MW-11 (400-186364-11), BA06243 MW-4 (400-186364-12), BA06244 MW-3 (400-186364-13), BA06245 MW-2 (400-186364-14), (LCS 160-467278/1-A) and (MB 160-467278/22-A)

Methods 9320: Radium-228 Prep Batch 160-467279. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06232 MW-7 (400-186364-1), BA06233 MW-7 DUP (400-186364-2), BA06234 MW-6 (400-186364-3), BA06234 MW-6 (400-186364-3[MS]), BA06234 MW-6 (400-186364-3[MSD]), BA06235 MW-5 (400-186364-4), BA06236 FB-1 (400-186364-5), BA06237 MW-8 (400-186364-6), BA06238 MW-9 (400-186364-7), BA06239 FB-2 (400-186364-8), BA06240 MW-10 (400-186364-9), BA06241 MW-10 DUP (400-186364-10), BA06242 MW-11 (400-186364-11), BA06243 MW-4 (400-186364-12), BA06244 MW-3 (400-186364-13), BA06245 MW-2 (400-186364-14), (LCS 160-467279/1-A) and (MB 160-467279/22-A)

Method 9320: Radium-228 Prep Batch 160-467282. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06246 MW-1 (400-186364-15), BA06247 EB-1 (400-186364-16), (LCS 160-467282/1-A), (MB 160-467282/23-A), (400-186365-A-5-D), (400-186365-A-5-E MS) and (400-186365-A-5-F MSD)

Method PrecSep_0: Radium 228 Prep Batch 160-467279. The following samples were prepared at a reduced aliquot due to limited volume: BA06232 MW-7 (400-186364-1), BA06233 MW-7 DUP (400-186364-2), BA06234 MW-6 (400-186364-3), BA06234 MW-6 (400-186364-3[MS]), BA06234 MW-6 (400-186364-3[MSD]), BA06235 MW-5 (400-186364-4), BA06236 FB-1 (400-186364-5), BA06237 MW-8 (400-186364-6), BA06238 MW-9 (400-186364-7), BA06239 FB-2 (400-186364-8), BA06240 MW-10 (400-186364-9), BA06241 MW-10 DUP (400-186364-10), BA06242 MW-11 (400-186364-11), BA06243 MW-4 (400-186364-12), BA06244 MW-3 (400-186364-13) and BA06245 MW-2 (400-186364-14). Sample 400-186364-12 has a yellow discoloration and cloudy appearance.

Method PrecSep_0: Radium 228 Prep Batch 160-467282. The following samples were prepared at a reduced aliquot due to limited volume: BA06246 MW-1 (400-186364-15) and BA06247 EB-1 (400-186364-16).

Method PrecSep-21: Radium 226 Prep Batch 160-467278. The following samples were prepared at a reduced aliquot due to limited volume: BA06232 MW-7 (400-186364-1), BA06233 MW-7 DUP (400-186364-2), BA06234 MW-6 (400-186364-3), BA06234 MW-6 (400-186364-3[MS]), BA06234 MW-6 (400-186364-3[MSD]), BA06235 MW-5 (400-186364-4), BA06236 FB-1 (400-186364-5), BA06237 MW-8 (400-186364-6), BA06238 MW-9 (400-186364-7), BA06239 FB-2 (400-186364-8), BA06240 MW-10 (400-186364-9), BA06241 MW-10 DUP (400-186364-10), BA06242 MW-11 (400-186364-11), BA06243 MW-4 (400-186364-12), BA06244 MW-3 (400-186364-13) and BA06245 MW-2 (400-186364-14). Sample 400-186364-12 has a yellow discoloration and cloudy appearance.

Job ID: 400-186364-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method PrecSep-21: Radium 226 Prep Batch 160-467280. The following samples were prepared at a reduced aliquot due to limited volume: BA06246 MW-1 (400-186364-15) and BA06247 EB-1 (400-186364-16).

Method Summary

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

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

Protocol References:

None = None

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

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

Laboratory References:

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

Sample Summary

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-186364-1	BA06232 MW-7	Water	03/30/20 14:52	04/06/20 14:00	
400-186364-2	BA06233 MW-7 DUP	Water	03/30/20 14:52	04/06/20 14:00	
400-186364-3	BA06234 MW-6	Water	03/30/20 15:42	04/06/20 14:00	
400-186364-4	BA06235 MW-5	Water	03/30/20 16:32	04/06/20 14:00	
400-186364-5	BA06236 FB-1	Water	03/30/20 16:55	04/06/20 14:00	
400-186364-6	BA06237 MW-8	Water	03/30/20 17:13	04/06/20 14:00	
400-186364-7	BA06238 MW-9	Water	03/31/20 08:45	04/06/20 14:00	
400-186364-8	BA06239 FB-2	Water	03/31/20 11:10	04/06/20 14:00	
400-186364-9	BA06240 MW-10	Water	03/31/20 11:33	04/06/20 14:00	
400-186364-10	BA06241 MW-10 DUP	Water	03/31/20 11:33	04/06/20 14:00	
400-186364-11	BA06242 MW-11	Water	03/31/20 12:42	04/06/20 14:00	
400-186364-12	BA06243 MW-4	Water	03/31/20 13:42	04/06/20 14:00	
400-186364-13	BA06244 MW-3	Water	03/31/20 14:30	04/06/20 14:00	
400-186364-14	BA06245 MW-2	Water	03/31/20 15:32	04/06/20 14:00	
400-186364-15	BA06246 MW-1	Water	03/31/20 16:10	04/06/20 14:00	
400-186364-16	BA06247 EB-1	Water	03/31/20 16:35	04/06/20 14:00	

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06232 MW-7

Lab Sample ID: 400-186364-1

Date Collected: 03/30/20 14:52
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.228		0.102	0.104	1.00	0.111	pCi/L	04/09/20 07:55	05/01/20 10:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.711		0.333	0.339	1.00	0.483	pCi/L	04/09/20 08:23	04/22/20 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:57*	*1*
Y Carrier	*84.1*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:57*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.939		0.348	0.355	5.00	0.483	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06233 MW-7 DUP

Lab Sample ID: 400-186364-2
Date Collected: 03/30/20 14:52
Matrix: Water
Date Received: 04/06/20 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.308**		0.144	0.146	1.00	0.177	pCi/L	04/09/20 07:55	05/01/20 10:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.323	U	0.373	0.374	1.00	0.615	pCi/L	04/09/20 08:23	04/22/20 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:57*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:57*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.631**		0.400	0.401	5.00	0.615	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06234 MW-6

Lab Sample ID: 400-186364-3

Date Collected: 03/30/20 15:42
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.378		0.127	0.131	1.00	0.117	pCi/L	04/09/20 07:55	05/01/20 10:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.16		0.392	0.406	1.00	0.527	pCi/L	04/09/20 08:23	04/22/20 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:57*	*1*
Y Carrier	*82.2*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:57*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.54		0.412	0.427	5.00	0.527	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06235 MW-5

Lab Sample ID: 400-186364-4

Date Collected: 03/30/20 16:32
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.322**		0.123	0.126	1.00	0.127	pCi/L	04/09/20 07:55	05/01/20 10:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.204	U	0.258	0.259	1.00	0.429	pCi/L	04/09/20 08:23	04/22/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*
Y Carrier	*80.4*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.525**		0.286	0.288	5.00	0.429	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06236 FB-1

Date Collected: 03/30/20 16:55
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186364-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0374	U	0.0827	0.0827	1.00	0.149	pCi/L	04/09/20 07:55	05/01/20 10:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.151	U	0.221	0.222	1.00	0.440	pCi/L	04/09/20 08:23	04/22/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*
Y Carrier	*79.3*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.113	U	0.236	0.237	5.00	0.440	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06237 MW-8

Lab Sample ID: 400-186364-6

Date Collected: 03/30/20 17:13
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.410**		0.146	0.151	1.00	0.144	pCi/L	04/09/20 07:55	05/01/20 10:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0126	U	0.343	0.343	1.00	0.613	pCi/L	04/09/20 08:23	04/22/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*
Y Carrier	*79.6*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.397	U	0.373	0.375	5.00	0.613	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06238 MW-9

Lab Sample ID: 400-186364-7

Date Collected: 03/31/20 08:45
Matrix: Water
Date Received: 04/06/20 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.914		0.210	0.225	1.00	0.165	pCi/L	04/09/20 07:55	05/01/20 10:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.965		0.381	0.391	1.00	0.519	pCi/L	04/09/20 08:23	04/22/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*
Y Carrier	*80.0*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.88		0.435	0.451	5.00	0.519	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06239 FB-2

Lab Sample ID: 400-186364-8

Date Collected: 03/31/20 11:10
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.103	0.103	1.00	0.161	pCi/L	04/09/20 07:55	05/01/20 10:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/09/20 07:55*	*05/01/20 10:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.562**		0.319	0.323	1.00	0.472	pCi/L	04/09/20 08:23	04/22/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*
Y Carrier	*82.2*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.668**		0.335	0.339	5.00	0.472	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06240 MW-10

Lab Sample ID: 400-186364-9

Date Collected: 03/31/20 11:33
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.517		0.151	0.158	1.00	0.135	pCi/L	04/09/20 07:55	05/01/20 12:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 07:55*	*05/01/20 12:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.493		0.313	0.316	1.00	0.477	pCi/L	04/09/20 08:23	04/22/20 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*
Y Carrier	*81.9*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:53*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.348	0.353	5.00	0.477	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06241 MW-10 DUP

Lab Sample ID: 400-186364-10

Date Collected: 03/31/20 11:33
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.518**		0.153	0.160	1.00	0.134	pCi/L	04/09/20 07:55	05/01/20 12:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*04/09/20 07:55*	*05/01/20 12:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.495	U	0.334	0.337	1.00	0.515	pCi/L	04/09/20 08:23	04/22/20 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*
Y Carrier	*80.4*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.01**		0.367	0.373	5.00	0.515	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06242 MW-11

Date Collected: 03/31/20 12:42
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186364-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.137	U	0.103	0.104	1.00	0.150	pCi/L	04/09/20 07:55	05/01/20 12:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*04/09/20 07:55*	*05/01/20 12:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.830**		0.348	0.356	1.00	0.485	pCi/L	04/09/20 08:23	04/22/20 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*
Y Carrier	*83.7*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.968**		0.363	0.371	5.00	0.485	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06243 MW-4

Lab Sample ID: 400-186364-12

Date Collected: 03/31/20 13:42
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.296		0.127	0.130	1.00	0.145	pCi/L	04/09/20 07:55	05/01/20 12:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*04/09/20 07:55*	*05/01/20 12:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.790		0.354	0.361	1.00	0.505	pCi/L	04/09/20 08:23	04/22/20 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.09		0.376	0.384	5.00	0.505	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06244 MW-3

Lab Sample ID: 400-186364-13

Date Collected: 03/31/20 14:30
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.209		0.115	0.116	1.00	0.151	pCi/L	04/09/20 07:55	05/01/20 12:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 07:55*	*05/01/20 12:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.732		0.393	0.399	1.00	0.595	pCi/L	04/09/20 08:23	04/22/20 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*
Y Carrier	*83.0*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.941		0.409	0.416	5.00	0.595	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06245 MW-2

Lab Sample ID: 400-186364-14

Date Collected: 03/31/20 15:32
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.526**		0.146	0.153	1.00	0.112	pCi/L	04/09/20 07:55	05/01/20 12:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*04/09/20 07:55*	*05/01/20 12:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.289	U	0.334	0.335	1.00	0.549	pCi/L	04/09/20 08:23	04/22/20 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*
Y Carrier	*77.4*		*40 - 110*	*04/09/20 08:23*	*04/22/20 12:54*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.814**		0.365	0.368	5.00	0.549	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06246 MW-1

Lab Sample ID: 400-186364-15

Date Collected: 03/31/20 16:10
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.640		0.178	0.187	1.00	0.160	pCi/L	04/09/20 08:25	05/01/20 07:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/09/20 08:25*	*05/01/20 07:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13		0.400	0.413	1.00	0.543	pCi/L	04/09/20 08:55	04/22/20 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*
Y Carrier	*82.2*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.77		0.438	0.453	5.00	0.543	pCi/L		05/04/20 07:21	1

Client Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06247 EB-1

Lab Sample ID: 400-186364-16

Date Collected: 03/31/20 16:35
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0248	U	0.0818	0.0818	1.00	0.153	pCi/L	04/09/20 08:25	05/01/20 07:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 08:25*	*05/01/20 07:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.133	U	0.324	0.324	1.00	0.555	pCi/L	04/09/20 08:55	04/22/20 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*
Y Carrier	*82.6*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.157	U	0.334	0.334	5.00	0.555	pCi/L		05/04/20 07:21	1

Definitions/Glossary

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Qualifiers

Rad

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Result is less than the sample detection limit.

Glossary

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

Lab Chronicle

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06232 MW-7

Lab Sample ID: 400-186364-1
Date Collected: 03/30/20 14:52
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:45	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:57	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06233 MW-7 DUP

Lab Sample ID: 400-186364-2
Date Collected: 03/30/20 14:52
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:45	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:57	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06234 MW-6

Lab Sample ID: 400-186364-3
Date Collected: 03/30/20 15:42
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:45	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:57	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06235 MW-5

Lab Sample ID: 400-186364-4
Date Collected: 03/30/20 16:32
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06236 FB-1 — Lab Sample ID: 400-186364-5

Date Collected: 03/30/20 16:55
Date Received: 04/06/20 14:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06237 MW-8 — Lab Sample ID: 400-186364-6

Date Collected: 03/30/20 17:13
Date Received: 04/06/20 14:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06238 MW-9 — Lab Sample ID: 400-186364-7

Date Collected: 03/31/20 08:45
Date Received: 04/06/20 14:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06239 FB-2 — Lab Sample ID: 400-186364-8

Date Collected: 03/31/20 11:10
Date Received: 04/06/20 14:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 10:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06240 MW-10

Lab Sample ID: 400-186364-9
Date Collected: 03/31/20 11:33
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 12:31	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06241 MW-10 DUP

Lab Sample ID: 400-186364-10
Date Collected: 03/31/20 11:33
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 12:31	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:54	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06242 MW-11

Lab Sample ID: 400-186364-11
Date Collected: 03/31/20 12:42
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 12:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:54	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06243 MW-4

Lab Sample ID: 400-186364-12
Date Collected: 03/31/20 13:42
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 12:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:54	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Client Sample ID: BA06244 MW-3

Lab Sample ID: 400-186364-13
Date Collected: 03/31/20 14:30
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 12:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:54	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06245 MW-2

Lab Sample ID: 400-186364-14
Date Collected: 03/31/20 15:32
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467278	04/09/20 07:55	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 12:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467279	04/09/20 08:23	RBR	TAL SL
Total/NA	Analysis	9320		1	468616	04/22/20 12:54	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06246 MW-1

Lab Sample ID: 400-186364-15
Date Collected: 03/31/20 16:10
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 07:14	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:44	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06247 EB-1

Lab Sample ID: 400-186364-16
Date Collected: 03/31/20 16:35
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 07:14	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:44	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Laboratory References:

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

QC Association Summary

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Rad

Prep Batch: 467278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186364-1	BA06232 MW-7	Total/NA	Water	PrecSep-21	
400-186364-2	BA06233 MW-7 DUP	Total/NA	Water	PrecSep-21	
400-186364-3	BA06234 MW-6	Total/NA	Water	PrecSep-21	
400-186364-4	BA06235 MW-5	Total/NA	Water	PrecSep-21	
400-186364-5	BA06236 FB-1	Total/NA	Water	PrecSep-21	
400-186364-6	BA06237 MW-8	Total/NA	Water	PrecSep-21	
400-186364-7	BA06238 MW-9	Total/NA	Water	PrecSep-21	
400-186364-8	BA06239 FB-2	Total/NA	Water	PrecSep-21	
400-186364-9	BA06240 MW-10	Total/NA	Water	PrecSep-21	
400-186364-10	BA06241 MW-10 DUP	Total/NA	Water	PrecSep-21	
400-186364-11	BA06242 MW-11	Total/NA	Water	PrecSep-21	
400-186364-12	BA06243 MW-4	Total/NA	Water	PrecSep-21	
400-186364-13	BA06244 MW-3	Total/NA	Water	PrecSep-21	
400-186364-14	BA06245 MW-2	Total/NA	Water	PrecSep-21	
MB 160-467278/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-467278/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-186364-3 MS	BA06234 MW-6	Total/NA	Water	PrecSep-21	
400-186364-3 MSD	BA06234 MW-6	Total/NA	Water	PrecSep-21	

Prep Batch: 467279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186364-1	BA06232 MW-7	Total/NA	Water	PrecSep_0	
400-186364-2	BA06233 MW-7 DUP	Total/NA	Water	PrecSep_0	
400-186364-3	BA06234 MW-6	Total/NA	Water	PrecSep_0	
400-186364-4	BA06235 MW-5	Total/NA	Water	PrecSep_0	
400-186364-5	BA06236 FB-1	Total/NA	Water	PrecSep_0	
400-186364-6	BA06237 MW-8	Total/NA	Water	PrecSep_0	
400-186364-7	BA06238 MW-9	Total/NA	Water	PrecSep_0	
400-186364-8	BA06239 FB-2	Total/NA	Water	PrecSep_0	
400-186364-9	BA06240 MW-10	Total/NA	Water	PrecSep_0	
400-186364-10	BA06241 MW-10 DUP	Total/NA	Water	PrecSep_0	
400-186364-11	BA06242 MW-11	Total/NA	Water	PrecSep_0	
400-186364-12	BA06243 MW-4	Total/NA	Water	PrecSep_0	
400-186364-13	BA06244 MW-3	Total/NA	Water	PrecSep_0	
400-186364-14	BA06245 MW-2	Total/NA	Water	PrecSep_0	
MB 160-467279/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-467279/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-186364-3 MS	BA06234 MW-6	Total/NA	Water	PrecSep_0	
400-186364-3 MSD	BA06234 MW-6	Total/NA	Water	PrecSep_0	

Prep Batch: 467280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186364-15	BA06246 MW-1	Total/NA	Water	PrecSep-21	
400-186364-16	BA06247 EB-1	Total/NA	Water	PrecSep-21	
MB 160-467280/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-467280/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-186365-A-5-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
400-186365-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

QC Association Summary

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Rad

Prep Batch: 467282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186364-15	BA06246 MW-1	Total/NA	Water	PrecSep_0	
400-186364-16	BA06247 EB-1	Total/NA	Water	PrecSep_0	
MB 160-467282/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-467282/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-186365-A-5-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
400-186365-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-467278/22-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467278

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01800	U	0.0506	0.0506	1.00	0.120	pCi/L	04/09/20 07:55	05/01/20 12:32	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*04/09/20 07:55*	*05/01/20 12:32*	*1*

Lab Sample ID: LCS 160-467278/1-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467278

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	14.43		1.50	1.00	0.149	pCi/L	95	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.8*		*40 - 110*

Lab Sample ID: 400-186364-3 MS
Matrix: Water
Analysis Batch: 469282

Client Sample ID: BA06234 MW-6
Prep Type: Total/NA
Prep Batch: 467278

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.378		15.1	13.51		1.42	1.00	0.163	pCi/L	87	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*

Lab Sample ID: 400-186364-3 MSD
Matrix: Water
Analysis Batch: 469282

Client Sample ID: BA06234 MW-6
Prep Type: Total/NA
Prep Batch: 467278

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.378		15.1	13.48		1.41	1.00	0.138	pCi/L	87	75 - 138	0.01	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*

Lab Sample ID: MB 160-467280/23-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467280

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08923	U	0.0937	0.0941	1.00	0.149	pCi/L	04/09/20 08:25	05/01/20 10:42	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-467280/23-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467280

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110	04/09/20 08:25	05/01/20 10:42	1

Lab Sample ID: LCS 160-467280/1-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467280

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	12.09		1.30	1.00	0.143	pCi/L	80	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.6		40 - 110

Lab Sample ID: 400-186365-A-5-B MS
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 467280

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.383		15.1	12.10		1.27	1.00	0.115	pCi/L	77	75 - 138

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	103		40 - 110

Lab Sample ID: 400-186365-A-5-C MSD
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 467280

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.383		15.1	11.53	F1	1.23	1.00	0.127	pCi/L	74	75 - 138	0.23	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	93.3		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-467279/22-A
Matrix: Water
Analysis Batch: 468616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467279

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4509	U	0.366	0.369	1.00	0.583	pCi/L	04/09/20 08:23	04/22/20 12:54	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110	04/09/20 08:23	04/22/20 12:54	1

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

Lab Sample ID: MB 160-467279/22-A
Matrix: Water
Analysis Batch: 468616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467279

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	79.6		40 - 110	04/09/20 08:23	04/22/20 12:54	1

Lab Sample ID: LCS 160-467279/1-A
Matrix: Water
Analysis Batch: 468601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467279

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	11.9	12.82		1.52	1.00	0.605	pCi/L	108	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.8		40 - 110
Y Carrier	82.6		40 - 110

Lab Sample ID: 400-186364-3 MS
Matrix: Water
Analysis Batch: 468601

Client Sample ID: BA06234 MW-6
Prep Type: Total/NA
Prep Batch: 467279

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	1.16		11.9	12.47		1.48	1.00	0.602	pCi/L	95	45 - 150

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	79.6		40 - 110

Lab Sample ID: 400-186364-3 MSD
Matrix: Water
Analysis Batch: 468616

Client Sample ID: BA06234 MW-6
Prep Type: Total/NA
Prep Batch: 467279

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	1.16		11.9	11.20		1.33	1.00	0.475	pCi/L	85	45 - 150	0.45	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	79.6		40 - 110

Lab Sample ID: MB 160-467282/23-A
Matrix: Water
Analysis Batch: 468601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467282

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5568	U	0.391	0.395	1.00	0.614	pCi/L	04/09/20 08:55	04/22/20 12:42	1

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

Lab Sample ID: MB 160-467282/23-A
Matrix: Water
Analysis Batch: 468601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467282

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110	04/09/20 08:55	04/22/20 12:42	1
Y Carrier	83.7		40 - 110	04/09/20 08:55	04/22/20 12:42	1

Lab Sample ID: LCS 160-467282/1-A
Matrix: Water
Analysis Batch: 468602

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467282

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			11.9	12.59		1.49	1.00	0.598	pCi/L	106	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.6		40 - 110
Y Carrier	78.9		40 - 110

Lab Sample ID: 400-186365-A-5-E MS
Matrix: Water
Analysis Batch: 468602

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 467282

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.404	U	11.9	12.15		1.42	1.00	0.518	pCi/L	99	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	80.4		40 - 110

Lab Sample ID: 400-186365-A-5-F MSD
Matrix: Water
Analysis Batch: 468602

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 467282

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.404	U	11.9	14.05		1.62	1.00	0.536	pCi/L	115	45 - 150	0.62	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	93.3		40 - 110
Y Carrier	79.6		40 - 110

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-186364 COC

Client Information (Sub Contract Lab)	Sampler: Anthony Goggins	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 1
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Gypsum 1270	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA06232	3/30/20	14:52	G	Water						X	1	MW-7
BA06233	3/30/20	14:52	G	Water						X	1	MW-7 DUP (Sample Duplicate)
BA06234	3/30/20	15:42	G	Water		X				X	3	MW-6
BA06235	3/30/20	16:32	G	Water						X	1	MW-5
BA06236	3/30/20	16:55	G	Water						X	1	FB-1 (Field Blank)
BA06237	3/30/20	17:13	G	Water						X	1	MW-8
BA06238	3/31/20	08:45	G	Water						X	1	MW-9
BA06239	3/31/20	11:10	G	Water						X	1	FB-2 (Field Blank)
BA06240	3/31/20	11:33	G	Water						X	1	MW-10
BA06241	3/31/20	11:33	G	Water						X	1	MW-10 DUP (Sample Duplicate)
BA06242	3/31/20	12:42	G	Water						X	1	MW-11
BA06243	3/31/20	13:42	G	Water						X	1	MW-4
BA06244	3/31/20	14:30	G	Water						X	1	MW-3
BA06245	3/31/20	15:32	G	Water						X	1	MW-2
BA06246	3/31/20	16:10	G	Water						X	1	MW-1
BA06247	3/31/20	16:35	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 43599 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by: Laura Midkiff	Date/Time: 4/03/2020 10:00	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Kathy R Avery	Date/Time: 4.6.2014:00	Company: ETA
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 24.2°C IR7		

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-186364-1
SDG Number: Barry Gypsum 1270

Login Number: 186364
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	24.2°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-186364-1
SDG Number: Barry Gypsum 1270

Login Number: 186364
List Number: 2
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 04/08/20 12:03 PM

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

Accreditation/Certification Summary

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

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

Job ID: 400-186364-1
SDG: Barry Gypsum 1270

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-1	3/31/2020 15:53	Conductivity	86.56	uS/cm
BY-GSA-MW-1	3/31/2020 15:53	DO	0.33	mg/L
BY-GSA-MW-1	3/31/2020 15:53	Depth to Water Detail	12.35	ft
BY-GSA-MW-1	3/31/2020 15:53	Oxidation Reduction Potention	247.59	mv
BY-GSA-MW-1	3/31/2020 15:53	pH	4.57	pH
BY-GSA-MW-1	3/31/2020 15:53	Temperature	20.57	C
BY-GSA-MW-1	3/31/2020 15:53	Turbidity	3.55	NTU
BY-GSA-MW-1	3/31/2020 15:58	Conductivity	86.74	uS/cm
BY-GSA-MW-1	3/31/2020 15:58	DO	0.26	mg/L
BY-GSA-MW-1	3/31/2020 15:58	Depth to Water Detail	12.35	ft
BY-GSA-MW-1	3/31/2020 15:58	Oxidation Reduction Potention	245.93	mv
BY-GSA-MW-1	3/31/2020 15:58	pH	4.59	pH
BY-GSA-MW-1	3/31/2020 15:58	Temperature	20.4	C
BY-GSA-MW-1	3/31/2020 15:58	Turbidity	3	NTU
BY-GSA-MW-1	3/31/2020 16:03	Conductivity	87.01	uS/cm
BY-GSA-MW-1	3/31/2020 16:03	DO	0.09	mg/L
BY-GSA-MW-1	3/31/2020 16:03	Depth to Water Detail	12.35	ft
BY-GSA-MW-1	3/31/2020 16:03	Oxidation Reduction Potention	244.26	mv
BY-GSA-MW-1	3/31/2020 16:03	pH	4.62	pH
BY-GSA-MW-1	3/31/2020 16:03	Temperature	20.46	C
BY-GSA-MW-1	3/31/2020 16:03	Turbidity	2.5	NTU
BY-GSA-MW-1	3/31/2020 16:08	Conductivity	86.94	uS/cm
BY-GSA-MW-1	3/31/2020 16:08	DO	0.33	mg/L
BY-GSA-MW-1	3/31/2020 16:08	Depth to Water Detail	12.35	ft
BY-GSA-MW-1	3/31/2020 16:08	Oxidation Reduction Potention	243.97	mv
BY-GSA-MW-1	3/31/2020 16:08	pH	4.64	pH
BY-GSA-MW-1	3/31/2020 16:08	Temperature	20.55	C
BY-GSA-MW-1	3/31/2020 16:08	Turbidity	2.1	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-2	3/31/2020 14:48	Conductivity	62.78	uS/cm
BY-GSA-MW-2	3/31/2020 14:48	DO	6.78	mg/L
BY-GSA-MW-2	3/31/2020 14:48	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 14:48	Oxidation Reduction Potention	342.43	mv
BY-GSA-MW-2	3/31/2020 14:48	pH	4.38	pH
BY-GSA-MW-2	3/31/2020 14:48	Temperature	19.95	C
BY-GSA-MW-2	3/31/2020 14:48	Turbidity	23.1	NTU
BY-GSA-MW-2	3/31/2020 14:53	Conductivity	62.22	uS/cm
BY-GSA-MW-2	3/31/2020 14:53	DO	6.7	mg/L
BY-GSA-MW-2	3/31/2020 14:53	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 14:53	Oxidation Reduction Potention	361.9	mv
BY-GSA-MW-2	3/31/2020 14:53	pH	4.39	pH
BY-GSA-MW-2	3/31/2020 14:53	Temperature	19.88	C
BY-GSA-MW-2	3/31/2020 14:53	Turbidity	22.5	NTU
BY-GSA-MW-2	3/31/2020 14:58	Conductivity	61.52	uS/cm
BY-GSA-MW-2	3/31/2020 14:58	DO	6.7	mg/L
BY-GSA-MW-2	3/31/2020 14:58	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 14:58	Oxidation Reduction Potention	368.57	mv
BY-GSA-MW-2	3/31/2020 14:58	pH	4.44	pH
BY-GSA-MW-2	3/31/2020 14:58	Temperature	19.76	C
BY-GSA-MW-2	3/31/2020 14:58	Turbidity	21.9	NTU
BY-GSA-MW-2	3/31/2020 15:03	Conductivity	61.13	uS/cm
BY-GSA-MW-2	3/31/2020 15:03	DO	6.68	mg/L
BY-GSA-MW-2	3/31/2020 15:03	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 15:03	Oxidation Reduction Potention	369.98	mv
BY-GSA-MW-2	3/31/2020 15:03	pH	4.49	pH
BY-GSA-MW-2	3/31/2020 15:03	Temperature	19.82	C
BY-GSA-MW-2	3/31/2020 15:03	Turbidity	21.4	NTU
BY-GSA-MW-2	3/31/2020 15:08	Conductivity	60.95	uS/cm
BY-GSA-MW-2	3/31/2020 15:08	DO	6.64	mg/L
BY-GSA-MW-2	3/31/2020 15:08	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 15:08	Oxidation Reduction Potention	370.35	mv
BY-GSA-MW-2	3/31/2020 15:08	pH	4.54	pH
BY-GSA-MW-2	3/31/2020 15:08	Temperature	19.92	C
BY-GSA-MW-2	3/31/2020 15:08	Turbidity	12.4	NTU
BY-GSA-MW-2	3/31/2020 15:13	Conductivity	60.36	uS/cm
BY-GSA-MW-2	3/31/2020 15:13	DO	6.63	mg/L
BY-GSA-MW-2	3/31/2020 15:13	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 15:13	Oxidation Reduction Potention	374.22	mv
BY-GSA-MW-2	3/31/2020 15:13	pH	4.55	pH
BY-GSA-MW-2	3/31/2020 15:13	Temperature	19.95	C
BY-GSA-MW-2	3/31/2020 15:13	Turbidity	12.2	NTU
BY-GSA-MW-2	3/31/2020 15:18	Conductivity	59.87	uS/cm
BY-GSA-MW-2	3/31/2020 15:18	DO	6.62	mg/L

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-2	3/31/2020 15:18	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 15:18	Oxidation Reduction Potention	379.32	mv
BY-GSA-MW-2	3/31/2020 15:18	pH	4.55	pH
BY-GSA-MW-2	3/31/2020 15:18	Temperature	19.81	C
BY-GSA-MW-2	3/31/2020 15:18	Turbidity	9.61	NTU
BY-GSA-MW-2	3/31/2020 15:23	Conductivity	59.77	uS/cm
BY-GSA-MW-2	3/31/2020 15:23	DO	6.63	mg/L
BY-GSA-MW-2	3/31/2020 15:23	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 15:23	Oxidation Reduction Potention	380.98	mv
BY-GSA-MW-2	3/31/2020 15:23	pH	4.58	pH
BY-GSA-MW-2	3/31/2020 15:23	Temperature	19.85	C
BY-GSA-MW-2	3/31/2020 15:23	Turbidity	7.73	NTU
BY-GSA-MW-2	3/31/2020 15:28	Conductivity	59.75	uS/cm
BY-GSA-MW-2	3/31/2020 15:28	DO	6.6	mg/L
BY-GSA-MW-2	3/31/2020 15:28	Depth to Water Detail	11.9	ft
BY-GSA-MW-2	3/31/2020 15:28	Oxidation Reduction Potention	382.24	mv
BY-GSA-MW-2	3/31/2020 15:28	pH	4.6	pH
BY-GSA-MW-2	3/31/2020 15:28	Temperature	19.87	C
BY-GSA-MW-2	3/31/2020 15:28	Turbidity	6.32	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-3	3/31/2020 14:12	Conductivity	52.17	uS/cm
BY-GSA-MW-3	3/31/2020 14:12	DO	6.09	mg/L
BY-GSA-MW-3	3/31/2020 14:12	Depth to Water Detail	14.73	ft
BY-GSA-MW-3	3/31/2020 14:12	Oxidation Reduction Potention	346.96	mv
BY-GSA-MW-3	3/31/2020 14:12	pH	4.33	pH
BY-GSA-MW-3	3/31/2020 14:12	Temperature	20.33	C
BY-GSA-MW-3	3/31/2020 14:12	Turbidity	17.8	NTU
BY-GSA-MW-3	3/31/2020 14:17	Conductivity	52.14	uS/cm
BY-GSA-MW-3	3/31/2020 14:17	DO	6.11	mg/L
BY-GSA-MW-3	3/31/2020 14:17	Depth to Water Detail	14.73	ft
BY-GSA-MW-3	3/31/2020 14:17	Oxidation Reduction Potention	362.17	mv
BY-GSA-MW-3	3/31/2020 14:17	pH	4.27	pH
BY-GSA-MW-3	3/31/2020 14:17	Temperature	20.16	C
BY-GSA-MW-3	3/31/2020 14:17	Turbidity	10.95	NTU
BY-GSA-MW-3	3/31/2020 14:22	Conductivity	52.08	uS/cm
BY-GSA-MW-3	3/31/2020 14:22	DO	6.05	mg/L
BY-GSA-MW-3	3/31/2020 14:22	Depth to Water Detail	14.73	ft
BY-GSA-MW-3	3/31/2020 14:22	Oxidation Reduction Potention	368.24	mv
BY-GSA-MW-3	3/31/2020 14:22	pH	4.32	pH
BY-GSA-MW-3	3/31/2020 14:22	Temperature	20.24	C
BY-GSA-MW-3	3/31/2020 14:22	Turbidity	6.94	NTU
BY-GSA-MW-3	3/31/2020 14:27	Conductivity	52.07	uS/cm
BY-GSA-MW-3	3/31/2020 14:27	DO	6.04	mg/L
BY-GSA-MW-3	3/31/2020 14:27	Depth to Water Detail	14.73	ft
BY-GSA-MW-3	3/31/2020 14:27	Oxidation Reduction Potention	366.76	mv
BY-GSA-MW-3	3/31/2020 14:27	pH	4.4	pH
BY-GSA-MW-3	3/31/2020 14:27	Temperature	20.3	C
BY-GSA-MW-3	3/31/2020 14:27	Turbidity	4.95	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-4	3/31/2020 13:24	Conductivity	52.25	uS/cm
BY-GSA-MW-4	3/31/2020 13:24	DO	6.85	mg/L
BY-GSA-MW-4	3/31/2020 13:24	Depth to Water Detail	20.85	ft
BY-GSA-MW-4	3/31/2020 13:24	Oxidation Reduction Potention	342.49	mv
BY-GSA-MW-4	3/31/2020 13:24	pH	4.31	pH
BY-GSA-MW-4	3/31/2020 13:24	Temperature	21.18	C
BY-GSA-MW-4	3/31/2020 13:24	Turbidity	10	NTU
BY-GSA-MW-4	3/31/2020 13:29	Conductivity	52.11	uS/cm
BY-GSA-MW-4	3/31/2020 13:29	DO	6.82	mg/L
BY-GSA-MW-4	3/31/2020 13:29	Depth to Water Detail	20.85	ft
BY-GSA-MW-4	3/31/2020 13:29	Oxidation Reduction Potention	350.48	mv
BY-GSA-MW-4	3/31/2020 13:29	pH	4.38	pH
BY-GSA-MW-4	3/31/2020 13:29	Temperature	21.26	C
BY-GSA-MW-4	3/31/2020 13:29	Turbidity	8.06	NTU
BY-GSA-MW-4	3/31/2020 13:34	Conductivity	51.99	uS/cm
BY-GSA-MW-4	3/31/2020 13:34	DO	6.78	mg/L
BY-GSA-MW-4	3/31/2020 13:34	Depth to Water Detail	20.85	ft
BY-GSA-MW-4	3/31/2020 13:34	Oxidation Reduction Potention	353.63	mv
BY-GSA-MW-4	3/31/2020 13:34	pH	4.44	pH
BY-GSA-MW-4	3/31/2020 13:34	Temperature	21.16	C
BY-GSA-MW-4	3/31/2020 13:34	Turbidity	7.26	NTU
BY-GSA-MW-4	3/31/2020 13:39	Conductivity	51.7	uS/cm
BY-GSA-MW-4	3/31/2020 13:39	DO	6.78	mg/L
BY-GSA-MW-4	3/31/2020 13:39	Depth to Water Detail	20.85	ft
BY-GSA-MW-4	3/31/2020 13:39	Oxidation Reduction Potention	357.17	mv
BY-GSA-MW-4	3/31/2020 13:39	pH	4.51	pH
BY-GSA-MW-4	3/31/2020 13:39	Temperature	21.07	C
BY-GSA-MW-4	3/31/2020 13:39	Turbidity	7.33	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-5	3/30/2020 16:13	Conductivity	40.98	uS/cm
BY-GSA-MW-5	3/30/2020 16:13	DO	5.77	mg/L
BY-GSA-MW-5	3/30/2020 16:13	Depth to Water Detail	26.85	ft
BY-GSA-MW-5	3/30/2020 16:13	Oxidation Reduction Potention	314.96	mv
BY-GSA-MW-5	3/30/2020 16:13	pH	4.76	pH
BY-GSA-MW-5	3/30/2020 16:13	Temperature	22.46	C
BY-GSA-MW-5	3/30/2020 16:13	Turbidity	2.45	NTU
BY-GSA-MW-5	3/30/2020 16:18	Conductivity	41.08	uS/cm
BY-GSA-MW-5	3/30/2020 16:18	DO	5.84	mg/L
BY-GSA-MW-5	3/30/2020 16:18	Depth to Water Detail	26.85	ft
BY-GSA-MW-5	3/30/2020 16:18	Oxidation Reduction Potention	313.01	mv
BY-GSA-MW-5	3/30/2020 16:18	pH	4.83	pH
BY-GSA-MW-5	3/30/2020 16:18	Temperature	22.81	C
BY-GSA-MW-5	3/30/2020 16:18	Turbidity	1.97	NTU
BY-GSA-MW-5	3/30/2020 16:23	Conductivity	41.19	uS/cm
BY-GSA-MW-5	3/30/2020 16:23	DO	5.8	mg/L
BY-GSA-MW-5	3/30/2020 16:23	Depth to Water Detail	26.85	ft
BY-GSA-MW-5	3/30/2020 16:23	Oxidation Reduction Potention	331.75	mv
BY-GSA-MW-5	3/30/2020 16:23	pH	4.81	pH
BY-GSA-MW-5	3/30/2020 16:23	Temperature	22.1	C
BY-GSA-MW-5	3/30/2020 16:23	Turbidity	1.85	NTU
BY-GSA-MW-5	3/30/2020 16:28	Conductivity	41.2	uS/cm
BY-GSA-MW-5	3/30/2020 16:28	DO	5.79	mg/L
BY-GSA-MW-5	3/30/2020 16:28	Depth to Water Detail	26.85	ft
BY-GSA-MW-5	3/30/2020 16:28	Oxidation Reduction Potention	330.81	mv
BY-GSA-MW-5	3/30/2020 16:28	pH	4.83	pH
BY-GSA-MW-5	3/30/2020 16:28	Temperature	22.2	C
BY-GSA-MW-5	3/30/2020 16:28	Turbidity	1.65	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-6	3/30/2020 15:25	Conductivity	96.6	uS/cm
BY-GSA-MW-6	3/30/2020 15:25	DO	5.43	mg/L
BY-GSA-MW-6	3/30/2020 15:25	Depth to Water Detail	14.74	ft
BY-GSA-MW-6	3/30/2020 15:25	Oxidation Reduction Potention	276.75	mv
BY-GSA-MW-6	3/30/2020 15:25	pH	5.28	pH
BY-GSA-MW-6	3/30/2020 15:25	Temperature	22.07	C
BY-GSA-MW-6	3/30/2020 15:25	Turbidity	4.53	NTU
BY-GSA-MW-6	3/30/2020 15:30	Conductivity	96.79	uS/cm
BY-GSA-MW-6	3/30/2020 15:30	DO	5.46	mg/L
BY-GSA-MW-6	3/30/2020 15:30	Depth to Water Detail	14.74	ft
BY-GSA-MW-6	3/30/2020 15:30	Oxidation Reduction Potention	275.64	mv
BY-GSA-MW-6	3/30/2020 15:30	pH	5.42	pH
BY-GSA-MW-6	3/30/2020 15:30	Temperature	22.04	C
BY-GSA-MW-6	3/30/2020 15:30	Turbidity	3.9	NTU
BY-GSA-MW-6	3/30/2020 15:35	Conductivity	96.34	uS/cm
BY-GSA-MW-6	3/30/2020 15:35	DO	5.45	mg/L
BY-GSA-MW-6	3/30/2020 15:35	Depth to Water Detail	14.74	ft
BY-GSA-MW-6	3/30/2020 15:35	Oxidation Reduction Potention	277.05	mv
BY-GSA-MW-6	3/30/2020 15:35	pH	5.45	pH
BY-GSA-MW-6	3/30/2020 15:35	Temperature	22.15	C
BY-GSA-MW-6	3/30/2020 15:35	Turbidity	3.79	NTU
BY-GSA-MW-6	3/30/2020 15:40	Conductivity	97.56	uS/cm
BY-GSA-MW-6	3/30/2020 15:40	DO	5.46	mg/L
BY-GSA-MW-6	3/30/2020 15:40	Depth to Water Detail	14.74	ft
BY-GSA-MW-6	3/30/2020 15:40	Oxidation Reduction Potention	273.53	mv
BY-GSA-MW-6	3/30/2020 15:40	pH	5.51	pH
BY-GSA-MW-6	3/30/2020 15:40	Temperature	22.17	C
BY-GSA-MW-6	3/30/2020 15:40	Turbidity	3.67	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-7	3/30/2020 14:08	Conductivity	40.59	uS/cm
BY-GSA-MW-7	3/30/2020 14:08	DO	3.67	mg/L
BY-GSA-MW-7	3/30/2020 14:08	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:08	Oxidation Reduction Potention	308.51	mv
BY-GSA-MW-7	3/30/2020 14:08	pH	4.66	pH
BY-GSA-MW-7	3/30/2020 14:08	Temperature	21.23	C
BY-GSA-MW-7	3/30/2020 14:08	Turbidity	20.3	NTU
BY-GSA-MW-7	3/30/2020 14:13	Conductivity	41.54	uS/cm
BY-GSA-MW-7	3/30/2020 14:13	DO	3.74	mg/L
BY-GSA-MW-7	3/30/2020 14:13	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:13	Oxidation Reduction Potention	297.54	mv
BY-GSA-MW-7	3/30/2020 14:13	pH	4.84	pH
BY-GSA-MW-7	3/30/2020 14:13	Temperature	21.18	C
BY-GSA-MW-7	3/30/2020 14:13	Turbidity	14.8	NTU
BY-GSA-MW-7	3/30/2020 14:18	Conductivity	43.65	uS/cm
BY-GSA-MW-7	3/30/2020 14:18	DO	3.73	mg/L
BY-GSA-MW-7	3/30/2020 14:18	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:18	Oxidation Reduction Potention	278.66	mv
BY-GSA-MW-7	3/30/2020 14:18	pH	4.94	pH
BY-GSA-MW-7	3/30/2020 14:18	Temperature	21.26	C
BY-GSA-MW-7	3/30/2020 14:18	Turbidity	20.5	NTU
BY-GSA-MW-7	3/30/2020 14:23	Conductivity	46.33	uS/cm
BY-GSA-MW-7	3/30/2020 14:23	DO	3.71	mg/L
BY-GSA-MW-7	3/30/2020 14:23	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:23	Oxidation Reduction Potention	289.98	mv
BY-GSA-MW-7	3/30/2020 14:23	pH	4.95	pH
BY-GSA-MW-7	3/30/2020 14:23	Temperature	21.27	C
BY-GSA-MW-7	3/30/2020 14:23	Turbidity	20.9	NTU
BY-GSA-MW-7	3/30/2020 14:28	Conductivity	48.95	uS/cm
BY-GSA-MW-7	3/30/2020 14:28	DO	3.69	mg/L
BY-GSA-MW-7	3/30/2020 14:28	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:28	Oxidation Reduction Potention	305.4	mv
BY-GSA-MW-7	3/30/2020 14:28	pH	4.82	pH
BY-GSA-MW-7	3/30/2020 14:28	Temperature	21.24	C
BY-GSA-MW-7	3/30/2020 14:28	Turbidity	17.3	NTU
BY-GSA-MW-7	3/30/2020 14:33	Conductivity	50.48	uS/cm
BY-GSA-MW-7	3/30/2020 14:33	DO	3.67	mg/L
BY-GSA-MW-7	3/30/2020 14:33	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:33	Oxidation Reduction Potention	318.96	mv
BY-GSA-MW-7	3/30/2020 14:33	pH	4.84	pH
BY-GSA-MW-7	3/30/2020 14:33	Temperature	21.23	C
BY-GSA-MW-7	3/30/2020 14:33	Turbidity	14.1	NTU
BY-GSA-MW-7	3/30/2020 14:38	Conductivity	51.98	uS/cm
BY-GSA-MW-7	3/30/2020 14:38	DO	3.69	mg/L

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-7	3/30/2020 14:38	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:38	Oxidation Reduction Potention	320.85	mv
BY-GSA-MW-7	3/30/2020 14:38	pH	4.89	pH
BY-GSA-MW-7	3/30/2020 14:38	Temperature	21.15	C
BY-GSA-MW-7	3/30/2020 14:38	Turbidity	10.72	NTU
BY-GSA-MW-7	3/30/2020 14:43	Conductivity	53.38	uS/cm
BY-GSA-MW-7	3/30/2020 14:43	DO	3.65	mg/L
BY-GSA-MW-7	3/30/2020 14:43	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:43	Oxidation Reduction Potention	326.75	mv
BY-GSA-MW-7	3/30/2020 14:43	pH	4.91	pH
BY-GSA-MW-7	3/30/2020 14:43	Temperature	21.16	C
BY-GSA-MW-7	3/30/2020 14:43	Turbidity	9.11	NTU
BY-GSA-MW-7	3/30/2020 14:48	Conductivity	52.94	uS/cm
BY-GSA-MW-7	3/30/2020 14:48	DO	3.67	mg/L
BY-GSA-MW-7	3/30/2020 14:48	Depth to Water Detail	13.73	ft
BY-GSA-MW-7	3/30/2020 14:48	Oxidation Reduction Potention	332.16	mv
BY-GSA-MW-7	3/30/2020 14:48	pH	4.91	pH
BY-GSA-MW-7	3/30/2020 14:48	Temperature	21.18	C
BY-GSA-MW-7	3/30/2020 14:48	Turbidity	7.19	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-8	3/30/2020 16:55	Conductivity	41.53	uS/cm
BY-GSA-MW-8	3/30/2020 16:55	DO	1	mg/L
BY-GSA-MW-8	3/30/2020 16:55	Depth to Water Detail	27.1	ft
BY-GSA-MW-8	3/30/2020 16:55	Oxidation Reduction Potention	322.45	mv
BY-GSA-MW-8	3/30/2020 16:55	pH	4.87	pH
BY-GSA-MW-8	3/30/2020 16:55	Temperature	21.34	C
BY-GSA-MW-8	3/30/2020 16:55	Turbidity	8.05	NTU
BY-GSA-MW-8	3/30/2020 17:00	Conductivity	41.4	uS/cm
BY-GSA-MW-8	3/30/2020 17:00	DO	0.92	mg/L
BY-GSA-MW-8	3/30/2020 17:00	Depth to Water Detail	27.1	ft
BY-GSA-MW-8	3/30/2020 17:00	Oxidation Reduction Potention	338.28	mv
BY-GSA-MW-8	3/30/2020 17:00	pH	4.78	pH
BY-GSA-MW-8	3/30/2020 17:00	Temperature	21.24	C
BY-GSA-MW-8	3/30/2020 17:00	Turbidity	6.96	NTU
BY-GSA-MW-8	3/30/2020 17:05	Conductivity	41.36	uS/cm
BY-GSA-MW-8	3/30/2020 17:05	DO	0.89	mg/L
BY-GSA-MW-8	3/30/2020 17:05	Depth to Water Detail	27.1	ft
BY-GSA-MW-8	3/30/2020 17:05	Oxidation Reduction Potention	339.06	mv
BY-GSA-MW-8	3/30/2020 17:05	pH	4.87	pH
BY-GSA-MW-8	3/30/2020 17:05	Temperature	21.08	C
BY-GSA-MW-8	3/30/2020 17:05	Turbidity	5	NTU
BY-GSA-MW-8	3/30/2020 17:10	Conductivity	41.44	uS/cm
BY-GSA-MW-8	3/30/2020 17:10	DO	0.9	mg/L
BY-GSA-MW-8	3/30/2020 17:10	Depth to Water Detail	27.1	ft
BY-GSA-MW-8	3/30/2020 17:10	Oxidation Reduction Potention	334.69	mv
BY-GSA-MW-8	3/30/2020 17:10	pH	4.92	pH
BY-GSA-MW-8	3/30/2020 17:10	Temperature	21.14	C
BY-GSA-MW-8	3/30/2020 17:10	Turbidity	4.57	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-9	3/31/2020 8:26	Conductivity	74.44	uS/cm
BY-GSA-MW-9	3/31/2020 8:26	DO	2.86	mg/L
BY-GSA-MW-9	3/31/2020 8:26	Depth to Water Detail	6.1	ft
BY-GSA-MW-9	3/31/2020 8:26	Oxidation Reduction Potention	221.09	mv
BY-GSA-MW-9	3/31/2020 8:26	pH	4.46	pH
BY-GSA-MW-9	3/31/2020 8:26	Temperature	21.11	C
BY-GSA-MW-9	3/31/2020 8:26	Turbidity	9.26	NTU
BY-GSA-MW-9	3/31/2020 8:31	Conductivity	74.37	uS/cm
BY-GSA-MW-9	3/31/2020 8:31	DO	2.75	mg/L
BY-GSA-MW-9	3/31/2020 8:31	Depth to Water Detail	6.1	ft
BY-GSA-MW-9	3/31/2020 8:31	Oxidation Reduction Potention	227.19	mv
BY-GSA-MW-9	3/31/2020 8:31	pH	4.48	pH
BY-GSA-MW-9	3/31/2020 8:31	Temperature	21.17	C
BY-GSA-MW-9	3/31/2020 8:31	Turbidity	4.51	NTU
BY-GSA-MW-9	3/31/2020 8:36	Conductivity	74.42	uS/cm
BY-GSA-MW-9	3/31/2020 8:36	DO	2.78	mg/L
BY-GSA-MW-9	3/31/2020 8:36	Depth to Water Detail	6.1	ft
BY-GSA-MW-9	3/31/2020 8:36	Oxidation Reduction Potention	232.68	mv
BY-GSA-MW-9	3/31/2020 8:36	pH	4.46	pH
BY-GSA-MW-9	3/31/2020 8:36	Temperature	21.23	C
BY-GSA-MW-9	3/31/2020 8:36	Turbidity	3.1	NTU
BY-GSA-MW-9	3/31/2020 8:41	Conductivity	74.3	uS/cm
BY-GSA-MW-9	3/31/2020 8:41	DO	2.73	mg/L
BY-GSA-MW-9	3/31/2020 8:41	Depth to Water Detail	6.1	ft
BY-GSA-MW-9	3/31/2020 8:41	Oxidation Reduction Potention	249.23	mv
BY-GSA-MW-9	3/31/2020 8:41	pH	4.45	pH
BY-GSA-MW-9	3/31/2020 8:41	Temperature	21.25	C
BY-GSA-MW-9	3/31/2020 8:41	Turbidity	2.66	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-10	3/31/2020 10:58	Conductivity	55.53	uS/cm
BY-GSA-MW-10	3/31/2020 10:58	DO	4.12	mg/L
BY-GSA-MW-10	3/31/2020 10:58	Depth to Water Detail	10.08	ft
BY-GSA-MW-10	3/31/2020 10:58	Oxidation Reduction Potention	286.83	mv
BY-GSA-MW-10	3/31/2020 10:58	pH	4.49	pH
BY-GSA-MW-10	3/31/2020 10:58	Temperature	20.2	C
BY-GSA-MW-10	3/31/2020 10:58	Turbidity	18.1	NTU
BY-GSA-MW-10	3/31/2020 11:03	Conductivity	54.97	uS/cm
BY-GSA-MW-10	3/31/2020 11:03	DO	4.12	mg/L
BY-GSA-MW-10	3/31/2020 11:03	Depth to Water Detail	10.08	ft
BY-GSA-MW-10	3/31/2020 11:03	Oxidation Reduction Potention	302.15	mv
BY-GSA-MW-10	3/31/2020 11:03	pH	4.53	pH
BY-GSA-MW-10	3/31/2020 11:03	Temperature	20.23	C
BY-GSA-MW-10	3/31/2020 11:03	Turbidity	15.9	NTU
BY-GSA-MW-10	3/31/2020 11:08	Conductivity	55.46	uS/cm
BY-GSA-MW-10	3/31/2020 11:08	DO	4.11	mg/L
BY-GSA-MW-10	3/31/2020 11:08	Depth to Water Detail	10.08	ft
BY-GSA-MW-10	3/31/2020 11:08	Oxidation Reduction Potention	317.86	mv
BY-GSA-MW-10	3/31/2020 11:08	pH	4.51	pH
BY-GSA-MW-10	3/31/2020 11:08	Temperature	20.24	C
BY-GSA-MW-10	3/31/2020 11:08	Turbidity	12.8	NTU
BY-GSA-MW-10	3/31/2020 11:13	Conductivity	55.49	uS/cm
BY-GSA-MW-10	3/31/2020 11:13	DO	4.1	mg/L
BY-GSA-MW-10	3/31/2020 11:13	Depth to Water Detail	10.08	ft
BY-GSA-MW-10	3/31/2020 11:13	Oxidation Reduction Potention	327.34	mv
BY-GSA-MW-10	3/31/2020 11:13	pH	4.54	pH
BY-GSA-MW-10	3/31/2020 11:13	Temperature	20.22	C
BY-GSA-MW-10	3/31/2020 11:13	Turbidity	11.58	NTU
BY-GSA-MW-10	3/31/2020 11:18	Conductivity	55.17	uS/cm
BY-GSA-MW-10	3/31/2020 11:18	DO	4.1	mg/L
BY-GSA-MW-10	3/31/2020 11:18	Depth to Water Detail	10.08	ft
BY-GSA-MW-10	3/31/2020 11:18	Oxidation Reduction Potention	334.44	mv
BY-GSA-MW-10	3/31/2020 11:18	pH	4.56	pH
BY-GSA-MW-10	3/31/2020 11:18	Temperature	20.24	C
BY-GSA-MW-10	3/31/2020 11:18	Turbidity	10.57	NTU
BY-GSA-MW-10	3/31/2020 11:23	Conductivity	55.09	uS/cm
BY-GSA-MW-10	3/31/2020 11:23	DO	4.1	mg/L
BY-GSA-MW-10	3/31/2020 11:23	Depth to Water Detail	10.08	ft
BY-GSA-MW-10	3/31/2020 11:23	Oxidation Reduction Potention	339.77	mv
BY-GSA-MW-10	3/31/2020 11:23	pH	4.57	pH
BY-GSA-MW-10	3/31/2020 11:23	Temperature	20.25	C
BY-GSA-MW-10	3/31/2020 11:23	Turbidity	8.12	NTU
BY-GSA-MW-10	3/31/2020 11:28	Conductivity	54.91	uS/cm
BY-GSA-MW-10	3/31/2020 11:28	DO	4.11	mg/L

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-10	3/31/2020 11:28	Depth to Water Detail	10.08	ft
BY-GSA-MW-10	3/31/2020 11:28	Oxidation Reduction Potention	347.9	mv
BY-GSA-MW-10	3/31/2020 11:28	pH	4.55	pH
BY-GSA-MW-10	3/31/2020 11:28	Temperature	20.25	C
BY-GSA-MW-10	3/31/2020 11:28	Turbidity	7.28	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-11	3/31/2020 12:24	Conductivity	33.8	uS/cm
BY-GSA-MW-11	3/31/2020 12:24	DO	5.95	mg/L
BY-GSA-MW-11	3/31/2020 12:24	Depth to Water Detail	19.1	ft
BY-GSA-MW-11	3/31/2020 12:24	Oxidation Reduction Potention	260.54	mv
BY-GSA-MW-11	3/31/2020 12:24	pH	4.91	pH
BY-GSA-MW-11	3/31/2020 12:24	Temperature	22.81	C
BY-GSA-MW-11	3/31/2020 12:24	Turbidity	2.53	NTU
BY-GSA-MW-11	3/31/2020 12:29	Conductivity	33.68	uS/cm
BY-GSA-MW-11	3/31/2020 12:29	DO	5.94	mg/L
BY-GSA-MW-11	3/31/2020 12:29	Depth to Water Detail	19.1	ft
BY-GSA-MW-11	3/31/2020 12:29	Oxidation Reduction Potention	261.74	mv
BY-GSA-MW-11	3/31/2020 12:29	pH	4.91	pH
BY-GSA-MW-11	3/31/2020 12:29	Temperature	22.77	C
BY-GSA-MW-11	3/31/2020 12:29	Turbidity	1.81	NTU
BY-GSA-MW-11	3/31/2020 12:34	Conductivity	34.2	uS/cm
BY-GSA-MW-11	3/31/2020 12:34	DO	5.95	mg/L
BY-GSA-MW-11	3/31/2020 12:34	Depth to Water Detail	19.1	ft
BY-GSA-MW-11	3/31/2020 12:34	Oxidation Reduction Potention	267.77	mv
BY-GSA-MW-11	3/31/2020 12:34	pH	4.91	pH
BY-GSA-MW-11	3/31/2020 12:34	Temperature	22.83	C
BY-GSA-MW-11	3/31/2020 12:34	Turbidity	1.52	NTU
BY-GSA-MW-11	3/31/2020 12:39	Conductivity	33.62	uS/cm
BY-GSA-MW-11	3/31/2020 12:39	DO	5.9	mg/L
BY-GSA-MW-11	3/31/2020 12:39	Depth to Water Detail	19.1	ft
BY-GSA-MW-11	3/31/2020 12:39	Oxidation Reduction Potention	274.48	mv
BY-GSA-MW-11	3/31/2020 12:39	pH	4.91	pH
BY-GSA-MW-11	3/31/2020 12:39	Temperature	22.99	C
BY-GSA-MW-11	3/31/2020 12:39	Turbidity	1.74	NTU

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

Field Case Narrative

Plant Barry Gypsum Pond

2020 Compliance Event 2

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

Field quality control procedures were performed as follows:

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

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

Analytical Report

Alabama Power

Sample Group : WMWBARG_1299

Project/Site : Barry Gypsum
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Dyer

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

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

Alabama Power

October 12, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on September 10, 2020.
All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2021

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

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.10.12 10:01:33 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.10.12 10:10:41 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

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

Alabama Power Lab & Field SERVICES

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

Case Narrative

Alabama Power

Total Metals ICP

Barry Gypsum

WMWBARG_1299

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
BA17097	682306	WMWBARG_1299
BA17098	682306	WMWBARG_1299
BA17099	682306	WMWBARG_1299
BA17100	682306	WMWBARG_1299
BA17101	682306	WMWBARG_1299
BA17102	682306	WMWBARG_1299
BA17103	682306	WMWBARG_1299
BA17104	682306	WMWBARG_1299
BA17105	682306	WMWBARG_1299
BA17106	682306	WMWBARG_1299
BA17107	682307	WMWBARG_1299
BA17108	682307	WMWBARG_1299
BA17109	682307	WMWBARG_1299
BA17110	682307	WMWBARG_1299
BA17111	682307	WMWBARG_1299
BA17112	682307	WMWBARG_1299

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

7. 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 ICP

Barry Gypsum

WMWBARG_1299

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
BA17097	682286	WMWBARG_1299
BA17098	682286	WMWBARG_1299
BA17099	682286	WMWBARG_1299
BA17100	682286	WMWBARG_1299
BA17102	682286	WMWBARG_1299
BA17103	682286	WMWBARG_1299
BA17104	682286	WMWBARG_1299
BA17105	682286	WMWBARG_1299
BA17106	682286	WMWBARG_1299
BA17107	682286	WMWBARG_1299
BA17108	682287	WMWBARG_1299
BA17110	682287	WMWBARG_1299
BA17111	682287	WMWBARG_1299

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures

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

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

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

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

Case Narrative

Alabama Power

Total Metals ICPMS

Barry Gypsum

WMWBARG_1299

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
BA17097	682654	WMWBARG_1299
BA17098	682654	WMWBARG_1299
BA17099	682654	WMWBARG_1299
BA17100	682654	WMWBARG_1299
BA17101	682654	WMWBARG_1299
BA17102	682654	WMWBARG_1299
BA17103	682654	WMWBARG_1299
BA17104	682654	WMWBARG_1299
BA17105	682654	WMWBARG_1299
BA17106	682654	WMWBARG_1299
BA17107	682655	WMWBARG_1299
BA17108	682655	WMWBARG_1299
BA17109	682655	WMWBARG_1299
BA17110	682655	WMWBARG_1299
BA17111	682655	WMWBARG_1299
BA17112	682655	WMWBARG_1299

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, except for the following:
    - The CCV for Thallium and Lead failed. All affected samples were reanalyzed with new calibration curves 200914CCR1299 Tl Pb and 200916CCR1299 Tl with passing QC.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Barry Gypsum

WMWBARG_1299

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
BA17097	682342	WMWBARG_1299
BA17098	682342	WMWBARG_1299
BA17099	682342	WMWBARG_1299
BA17100	682342	WMWBARG_1299
BA17102	682342	WMWBARG_1299
BA17103	682342	WMWBARG_1299
BA17104	682342	WMWBARG_1299
BA17105	682342	WMWBARG_1299
BA17106	682342	WMWBARG_1299
BA17107	682342	WMWBARG_1299
BA17108	682343	WMWBARG_1299
BA17110	682343	WMWBARG_1299
BA17111	682343	WMWBARG_1299

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

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures

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

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

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

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

Case Narrative

Alabama Power

Mercury

Barry Gypsum

WMWBARG_1299

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
BA17097	682139	WMWBARG_1299
BA17098	682139	WMWBARG_1299
BA17099	682139	WMWBARG_1299
BA17100	682139	WMWBARG_1299
BA17101	682139	WMWBARG_1299
BA17102	682139	WMWBARG_1299
BA17103	682139	WMWBARG_1299
BA17104	682139	WMWBARG_1299
BA17105	682139	WMWBARG_1299
BA17106	682139	WMWBARG_1299
BA17107	682140	WMWBARG_1299
BA17108	682140	WMWBARG_1299
BA17109	682140	WMWBARG_1299
BA17110	682140	WMWBARG_1299
BA17111	682140	WMWBARG_1299
BA17112	682140	WMWBARG_1299

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

TDS

Barry Gypsum

WMWBARG_1299

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
BA17097	682131	WMWBARG_1299
BA17098	682131	WMWBARG_1299
BA17099	682131	WMWBARG_1299
BA17100	682131	WMWBARG_1299
BA17101	682131	WMWBARG_1299
BA17102	682131	WMWBARG_1299
BA17103	682131	WMWBARG_1299
BA17104	682131	WMWBARG_1299
BA17105	682165	WMWBARG_1299
BA17106	682165	WMWBARG_1299
BA17107	682165	WMWBARG_1299
BA17108	682165	WMWBARG_1299
BA17109	682165	WMWBARG_1299
BA17110	682165	WMWBARG_1299
BA17111	682165	WMWBARG_1299
BA17112	682165	WMWBARG_1299

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BA17101
  - BA17109
  - BA17112

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

Case Narrative

Alabama Power

Anions

Barry Gypsum

WMWBARG_1299

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
BA17097	682167, 682209, & 682787	WMWBARG_1299
BA17098	682167, 682209, & 682787	WMWBARG_1299
BA17099	682167, 682209, & 682787	WMWBARG_1299
BA17100	682167, 682209, & 682787	WMWBARG_1299
BA17101	682167, 682209, & 682787	WMWBARG_1299
BA17102	682167, 682209, & 682787	WMWBARG_1299
BA17103	682167, 682209, & 682787	WMWBARG_1299
BA17104	682167, 682209, & 682787	WMWBARG_1299
BA17105	682167, 682209, & 682787	WMWBARG_1299
BA17106	682167, 682209, & 682787	WMWBARG_1299
BA17107	682168, 682210, & 682788	WMWBARG_1299
BA17108	682168, 682210, & 682788	WMWBARG_1299
BA17109	682168, 682210, & 682788	WMWBARG_1299
BA17110	682168, 682210, & 682788	WMWBARG_1299
BA17111	682168, 682210, & 682788	WMWBARG_1299
BA17112	682168, 682210, & 682788	WMWBARG_1299

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

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analyte, except for the following:
    - The CCB for Fluoride batch 682209 was greater than half the RL. The batch was reanalyzed with similar CCB results and reported. All sample results in the batch were below the MDL.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

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

7. All samples were analyzed without dilution.

Alkalinity

Barry Gypsum

WMWBARG_1299

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
BA17097	682552 & 682553	WMWBARG_1299
BA17098	682552 & 682553	WMWBARG_1299
BA17099	682552 & 682553	WMWBARG_1299
BA17100	682552 & 682553	WMWBARG_1299
BA17102	682552 & 682553	WMWBARG_1299
BA17103	682552 & 682553	WMWBARG_1299
BA17104	682552 & 682553	WMWBARG_1299
BA17105	682552 & 682553	WMWBARG_1299
BA17106	682552 & 682553	WMWBARG_1299
BA17107	682552 & 682553	WMWBARG_1299
BA17108	682552 & 682553	WMWBARG_1299
BA17110	682552 & 682553	WMWBARG_1299
BA17111	682552 & 682553	WMWBARG_1299

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

General Quality Control Procedures:

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-4

Location Code: WMWBARG
Collected: 9/8/20 13:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17097

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 09:54		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 09:54		1.015	1.94	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 09:54		1.015	0.323	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 09:54		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 09:54		1.015	2.12	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 09:54		1.015	2.52	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:14		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:29		1.015	0.125	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 12:54		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:29		1.015	1.03	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:29		1.015	0.0170	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 12:54		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:27		1.015	0.0169	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	39.3	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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-4

Location Code: WMWBARG
Collected: 9/8/20 13:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17097

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:24	9/14/20 12:24		1	3.29	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:27	9/15/20 15:27		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:34	9/21/20 13:34		1	6.52	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 13:33	9/8/20 13:33			53.56	uS/cm			FA
pH	9/8/20 13:33	9/8/20 13:33			4.75	SU			FA
Temperature	9/8/20 13:33	9/8/20 13:33			22.86	C			FA
Turbidity	9/8/20 13:33	9/8/20 13:33			4.76	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 13:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA17097

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 13:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA17097

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17098

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 09:57		1.015	0.521	mg/L	0.03	0.1	
* Calcium, Total	9/14/20 12:15	9/16/20 09:57		1.015	3.24	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 09:57		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 09:57		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 09:57		1.015	3.10	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 09:57		1.015	4.10	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:17		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.181	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.00221	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.00227	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 12:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:32		1.015	1.39	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.0265	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.00520	mg/L	0.002	0.01	J
* Thallium, Total	9/11/20 08:47	9/14/20 12:56		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:30		1.015	0.0267	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	55.3	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17098

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:25	9/14/20 12:25		1	6.23	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:28	9/15/20 15:28		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:35	9/21/20 13:35		1	15.1	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 14:33	9/8/20 14:33			78.96	uS/cm			FA
pH	9/8/20 14:33	9/8/20 14:33			4.77	SU			FA
Temperature	9/8/20 14:33	9/8/20 14:33			23.46	C			FA
Turbidity	9/8/20 14:33	9/8/20 14:33			0.62	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA17098

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA17098

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-5 DUP

Location Code: WMWBARG
Collected: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17099

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:00		1.015	0.548	mg/L	0.03	0.1	
* Calcium, Total	9/14/20 12:15	9/16/20 10:00		1.015	3.32	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:00		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:00		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:00		1.015	3.17	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:00		1.015	4.17	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:20		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.182	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.00219	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.00232	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 12:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:35		1.015	1.43	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.0273	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.00575	mg/L	0.002	0.01	J
* Thallium, Total	9/11/20 08:47	9/14/20 12:59		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:32		1.015	0.0278	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	0.16	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	55.3	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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 DUP

Location Code: WMWBARG
Collected: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17099

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.16	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:27	9/14/20 12:27		1	6.44	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:30	9/15/20 15:30		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:36	9/21/20 13:36		1	15.5	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 14:33	9/8/20 14:33			78.96	uS/cm			FA
pH	9/8/20 14:33	9/8/20 14:33			4.77	SU			FA
Temperature	9/8/20 14:33	9/8/20 14:33			23.46	C			FA
Turbidity	9/8/20 14:33	9/8/20 14:33			0.62	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5 DUP

Laboratory ID Number: BA17099

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5 DUP

Laboratory ID Number: BA17099

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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: 9/8/20 16:00
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17100

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:03		1.015	0.362	mg/L	0.03	0.1	
* Calcium, Total	9/14/20 12:15	9/16/20 10:03		1.015	6.38	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:03		1.015	0.237	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:03		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:03		1.015	3.26	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:03		1.015	3.24	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:23		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.0981	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.00237	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.00296	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.949	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.0416	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.00520	mg/L	0.002	0.01	J
* Thallium, Total	9/11/20 08:47	9/14/20 13:02		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:35		1.015	0.0331	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	4.50	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	59.3	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 16:00
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17100

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	4.50	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:28	9/14/20 12:28		1	5.71	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:31	9/15/20 15:31		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:38	9/21/20 13:38		1	17.7	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 15:55	9/8/20 15:55			85.69	uS/cm			FA
pH	9/8/20 15:55	9/8/20 15:55			5.15	SU			FA
Temperature	9/8/20 15:55	9/8/20 15:55			23.41	C			FA
Turbidity	9/8/20 15:55	9/8/20 15:55			3.38	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 16:00
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA17100

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 16:00
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA17100

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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: 9/8/20 16:35
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17101

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:04		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:04		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	9/14/20 12:29	9/14/20 12:29		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	9/15/20 15:32	9/15/20 15:32		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	9/21/20 13:39	9/21/20 13:39		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 16:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BA17101

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 9/8/20 16:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BA17101

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

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: 9/8/20 17:03
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17102

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:09		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:09		1.015	1.12	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:09		1.015	0.185	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:09		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:09		1.015	1.18	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:09		1.015	5.08	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:26		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:42		1.015	0.0615	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:42		1.015	0.862	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:42		1.015	0.0129	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:07		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:38		1.015	0.0132	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	1.88	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	42.0	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 17:03
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17102

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	1.88	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:30	9/14/20 12:30		1	8.74	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:33	9/15/20 15:33		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:40	9/21/20 13:40		1	3.59	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 16:58	9/8/20 16:58			48.46	uS/cm			FA
pH	9/8/20 16:58	9/8/20 16:58			4.39	SU			FA
Temperature	9/8/20 16:58	9/8/20 16:58			22.14	C			FA
Turbidity	9/8/20 16:58	9/8/20 16:58			2.9	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 17:03
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA17102

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 17:03
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA17102

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-11

Location Code: WMWBARG
Collected: 9/8/20 17:55
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17103

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:12		1.015	0.0638	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:12		1.015	0.724	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:12		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:12		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:12		1.015	0.829	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:12		1.015	2.78	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:29		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:45		1.015	0.0500	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:45		1.015	0.00253	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:10		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:45		1.015	1.08	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:45		1.015	0.00822	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:10		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:40		1.015	0.00817	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	1.00	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	29.3	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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-11

Location Code: WMWBARG
Collected: 9/8/20 17:55
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17103

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	1.00	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:31	9/14/20 12:31		1	3.96	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:34	9/15/20 15:34		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:41	9/21/20 13:41		1	3.61	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 17:51	9/8/20 17:51			33.02	uS/cm			FA
pH	9/8/20 17:51	9/8/20 17:51			4.12	SU			FA
Temperature	9/8/20 17:51	9/8/20 17:51			23.10	C			FA
Turbidity	9/8/20 17:51	9/8/20 17:51			1.06	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 17:55
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA17103

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 17:55
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA17103

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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: 9/8/20 18:40
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17104

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:15		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:15		1.015	0.981	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:15		1.015	0.163	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:15		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:15		1.015	1.13	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:15		1.015	4.19	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:32		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.0494	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.00224	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.881	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.0159	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:12		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:43		1.015	0.0153	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	2.88	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	38.0	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 18:40
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17104

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	2.88	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:33	9/14/20 12:33		1	4.61	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:36	9/15/20 15:36		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:42	9/21/20 13:42		1	4.56	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 18:36	9/8/20 18:36			41.97	uS/cm			FA
pH	9/8/20 18:36	9/8/20 18:36			4.35	SU			FA
Temperature	9/8/20 18:36	9/8/20 18:36			21.56	C			FA
Turbidity	9/8/20 18:36	9/8/20 18:36			2.49	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/8/20 18:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA17104

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 18:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA17104

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-3

Location Code: WMWBARG
Collected: 9/9/20 08:35
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17105

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:18		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:18		1.015	1.97	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:18		1.015	0.0781	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:18		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:18		1.015	1.95	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:18		1.015	2.87	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:35		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:50		1.015	0.0919	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:50		1.015	0.985	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:50		1.015	0.0194	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:46		1.015	0.0189	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	42.7	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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-3

Location Code: WMWBARG
Collected: 9/9/20 08:35
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17105

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:34	9/14/20 12:34		1	3.47	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:37	9/15/20 15:37		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:44	9/21/20 13:44		1	7.13	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 08:33	9/9/20 08:33			52.56	uS/cm			FA
pH	9/9/20 08:33	9/9/20 08:33			4.76	SU			FA
Temperature	9/9/20 08:33	9/9/20 08:33			20.60	C			FA
Turbidity	9/9/20 08:33	9/9/20 08:33			2.24	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 08:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA17105

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 08:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA17105

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-2

Location Code: WMWBARG
Collected: 9/9/20 09:29
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17106

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:21		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:21		1.015	1.50	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:21		1.015	0.803	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:21		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:21		1.015	2.91	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:21		1.015	2.47	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:38		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.172	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.00219	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.984	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.0292	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:17		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:48		1.015	0.0286	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	40.7	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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-2

Location Code: WMWBARG
Collected: 9/9/20 09:29
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17106

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:35	9/14/20 12:35		1	2.32	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:38	9/15/20 15:38		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:45	9/21/20 13:45		1	6.08	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 09:25	9/9/20 09:25			59.70	uS/cm			FA
pH	9/9/20 09:25	9/9/20 09:25			4.67	SU			FA
Temperature	9/9/20 09:25	9/9/20 09:25			20.79	C			FA
Turbidity	9/9/20 09:25	9/9/20 09:25			9.32	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 09:29
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA17106

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 09:29
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA17106

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-1

Location Code: WMWBARG
Collected: 9/9/20 10:23
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17107

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:35		1.015	0.0999	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:35		1.015	1.43	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:35		1.015	3.44	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:35		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:35		1.015	2.45	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:35		1.015	2.58	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:41		1.015	3.35	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.124	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.00697	mg/L	0.002	0.005	
* Lead, Total	9/11/20 08:47	9/14/20 13:33		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.522	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.198	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:21		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:51		1.015	0.192	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	0.46	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	42.0	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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-1

Location Code: WMWBARG
Collected: 9/9/20 10:23
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17107

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.46	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:51	9/14/20 12:51		1	2.92	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 10:58	9/15/20 10:58		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:59	9/21/20 13:59		1	16.5	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 10:20	9/9/20 10:20			66.68	uS/cm			FA
pH	9/9/20 10:20	9/9/20 10:20			4.65	SU			FA
Temperature	9/9/20 10:20	9/9/20 10:20			21.21	C			FA
Turbidity	9/9/20 10:20	9/9/20 10:20			1.02	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 10:23
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA17107

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 10:23
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA17107

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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: 9/9/20 11:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17108

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:38		1.015	0.0873	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:38		1.015	1.79	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:38		1.015	0.0320	mg/L	0.02	0.05	J
* Lithium, Total	9/14/20 12:15	9/16/20 10:38		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:38		1.015	3.26	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:38		1.015	3.29	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:56		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:12		1.015	0.170	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:12		1.015	1.10	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:12		1.015	0.0434	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:24		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 16:07		1.015	0.0432	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	50.7	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 11:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17108

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:52	9/14/20 12:52		1	7.94	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 11:00	9/15/20 11:00		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 14:00	9/21/20 14:00		1	10.7	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 11:13	9/9/20 11:13			75.22	uS/cm			FA
pH	9/9/20 11:13	9/9/20 11:13			4.46	SU			FA
Temperature	9/9/20 11:13	9/9/20 11:13			22.47	C			FA
Turbidity	9/9/20 11:13	9/9/20 11:13			1.2	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 11:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA17108

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17111	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	0.204	0.204	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20
BA17111	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.142	0.141	0.106	0.085 to 0.115	107	70 to 130	0.707	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 11:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA17108

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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-2

Location Code: WMWBARGFB
Collected: 9/9/20 11:50
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17109

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	9/14/20 12:53	9/14/20 12:53		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	9/15/20 11:01	9/15/20 11:01		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	9/21/20 14:01	9/21/20 14:01		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 11:50
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-2

Laboratory ID Number: BA17109

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments:

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 9/9/20 11:50
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-2

Laboratory ID Number: BA17109

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments:

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: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17110

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:44		1.015	0.0509	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:44		1.015	1.10	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:44		1.015	0.270	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:44		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:44		1.015	2.42	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:44		1.015	2.83	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:59		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.125	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.00241	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.836	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.0358	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:29		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 16:09		1.015	0.0356	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	0.98	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	39.3	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17110

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.98	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:54	9/14/20 12:54		1	4.11	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 11:02	9/15/20 11:02		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 14:04	9/21/20 14:04		1	9.28	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 12:11	9/9/20 12:11			56.91	uS/cm			FA
pH	9/9/20 12:11	9/9/20 12:11			4.58	SU			FA
Temperature	9/9/20 12:11	9/9/20 12:11			22.04	C			FA
Turbidity	9/9/20 12:11	9/9/20 12:11			8.93	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA17110

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20
BA17111	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	0.204	0.204	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17111	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.142	0.141	0.106	0.085 to 0.115	107	70 to 130	0.707	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA17110

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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 DUP

Location Code: WMWBARG
Collected: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17111

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:47		1.015	0.0506	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:47		1.015	1.09	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:47		1.015	0.249	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:47		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:47		1.015	2.42	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:47		1.015	2.83	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 12:02		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.128	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.00242	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.859	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.0351	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 16:12		1.015	0.0350	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	1.08	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	40.0	mg/L		25	

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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 DUP

Location Code: WMWBARG
Collected: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17111

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	1.08	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:55	9/14/20 12:55		1	4.07	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 11:03	9/15/20 11:03		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 14:05	9/21/20 14:05		1	9.73	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 12:11	9/9/20 12:11			56.91	uS/cm			FA
pH	9/9/20 12:11	9/9/20 12:11			4.58	SU			FA
Temperature	9/9/20 12:11	9/9/20 12:11			22.04	C			FA
Turbidity	9/9/20 12:11	9/9/20 12:11			8.93	NTU			FA

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

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA17111

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17111	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	0.204	0.204	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17111	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.142	0.141	0.106	0.085 to 0.115	107	70 to 130	0.707	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA17111

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 12:40
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17112

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	9/14/20 12:58	9/14/20 12:58		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	9/15/20 11:04	9/15/20 11:04		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	9/21/20 14:06	9/21/20 14:06		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 10/12/2020
Version: 3.1
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: 9/9/20 12:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BA17112

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARGEB
Sample Date: 9/9/20 12:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BA17112

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments:

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

Definitions

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

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ☐ Outside Lab

✔ Lab Complete

Lab ETA

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

Bottles

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

Comments: Changed analyses for bottles 1 & 2 to be Metals & Dissolved Metals. LBM 9/10/20
Correcting description of MW-10 Dup to Sample Duplicate. LBM 10/07/20

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	09/08/2020	13:36	6	Groundwater		BA17097
MW-5	09/08/2020	14:36	6	Groundwater		BA17098
MW-5 Dup	09/08/2020	14:36	6	Sample Duplicate		BA17099
MW-6	09/08/2020	16:00	6	Groundwater		BA17100
FB-1	09/08/2020	16:35	4	Field Blank		BA17101
MW-7	09/08/2020	17:03	6	Groundwater		BA17102
MW-11	09/08/2020	17:55	6	Groundwater		BA17103
MW-8	09/08/2020	18:40	6	Groundwater		BA17104
MW-3	09/09/2020	08:35	6	Groundwater		BA17105
MW-2	09/09/2020	09:29	6	Groundwater		BA17106
MW-1	09/09/2020	10:23	6	Groundwater		BA17107
MW-9	09/09/2020	11:15	6	Groundwater		BA17108
FB-2	09/09/2020	11:50	4	Field Blank		BA17109
MW-10	09/09/2020	12:15	6	Groundwater		BA17110
MW-10 Dup	09/09/2020	12:15	6	Sample Duplicate		BA17111
EB-1	09/09/2020	12:40	4	Equipment Blank		BA17112

Relinquished By	Received By	Date/Time
		09/10/2020 10:32

SmarTroll ID	7586-41443-5-2
Turbidity ID	5160-26211-1-1
Sample Event	1299

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.6 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	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 at MW-6. Added 1600 to Rad MS & MSD bottles per COC. LBM 9/10/20
Correcting description of MW-10 Dup to Sample Duplicate. LBM 10/07/20

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	09/08/2020	13:36	1	Groundwater		BA17113
MW-5	09/08/2020	14:36	1	Groundwater		BA17114
MW-5 Dup	09/08/2020	14:36	1	Sample Duplicate		BA17115
MW-6	09/08/2020	16:00	3	Groundwater		BA17116
FB-1	09/08/2020	16:35	1	Field Blank		BA17117
MW-7	09/08/2020	17:03	1	Groundwater		BA17118
MW-11	09/08/2020	17:55	1	Groundwater		BA17119
MW-8	09/08/2020	18:40	1	Groundwater		BA17120
MW-3	09/09/2020	08:35	1	Groundwater		BA17121
MW-2	09/09/2020	09:29	1	Groundwater		BA17122
MW-1	09/09/2020	10:23	1	Groundwater		BA17123
MW-9	09/09/2020	11:15	1	Groundwater		BA17124
FB-2	09/09/2020	11:50	1	Field Blank		BA17125
MW-10	09/09/2020	12:15	1	Groundwater		BA17126
MW-10 Dup	09/09/2020	12:15	1	Sample Duplicate		BA17127
EB-1	09/09/2020	12:40	1	Equipment Blank		BA17128

Relinquished By	Received By	Date/Time
		09/10/2020 10:35

SmarTroll ID	7586-41443-5-2
Turbidity ID	5160-26211-1-1
Sample Event	1299

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-193437-1
Laboratory Sample Delivery Group: Barry Gypsum 1299
Client Project/Site: CCR Plant Barry

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

Attn: Laura Midkiff

Authorized for release by:
10/23/2020 5:16:05 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-193437-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-193437-1

RAD

Method 9315: Radium-226 Prep Batch 160-483946. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16)

Method 9320: Ra228 prep batch 160-483948. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16)

Method PrecSep_0: Radium 228 Prep Batch 160-483948. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16).

Method PrecSep-21: Radium 226 Prep Batch 160-483946. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16).

Method Summary

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

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

Protocol References:

None = None

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

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

Laboratory References:

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

Sample Summary

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-193437-1	BA17113 MW-4	Water	09/08/20 13:36	09/21/20 10:55	
400-193437-2	BA17114 MW-5	Water	09/08/20 14:36	09/21/20 10:55	
400-193437-3	BA17115 MW-5 DUP	Water	09/08/20 14:36	09/21/20 10:55	
400-193437-4	BA17116 MW-6	Water	09/08/20 16:00	09/21/20 10:55	
400-193437-5	BA17117 FB-1	Water	09/08/20 16:35	09/21/20 10:55	
400-193437-6	BA17118 MW-7	Water	09/08/20 17:03	09/21/20 10:55	
400-193437-7	BA17119 MW-11	Water	09/08/20 17:55	09/21/20 10:55	
400-193437-8	BA17120 MW-8	Water	09/08/20 18:40	09/21/20 10:55	
400-193437-9	BA17121 MW-3	Water	09/09/20 08:35	09/21/20 10:55	
400-193437-10	BA17122 MW-2	Water	09/09/20 09:29	09/21/20 10:55	
400-193437-11	BA17123 MW-1	Water	09/09/20 10:23	09/21/20 10:55	
400-193437-12	BA17124 MW-9	Water	09/09/20 11:15	09/21/20 10:55	
400-193437-13	BA17125 FB-2	Water	09/09/20 11:50	09/21/20 10:55	
400-193437-14	BA17126 MW-10	Water	09/09/20 12:15	09/21/20 10:55	
400-193437-15	BA17127 MW-10 DUP	Water	09/09/20 12:15	09/21/20 10:55	
400-193437-16	BA17128 EB-1	Water	09/09/20 12:40	09/21/20 10:55	

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17113 MW-4

Date Collected: 09/08/20 13:36
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.521		0.249	0.253	1.00	0.269	pCi/L	09/28/20 06:20	10/22/20 10:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.752		0.398	0.404	1.00	0.583	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*72.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.27		0.469	0.477	5.00	0.583	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17114 MW-5

Date Collected: 09/08/20 14:36
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.552**		0.268	0.273	1.00	0.297	pCi/L	09/28/20 06:20	10/22/20 10:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.6*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.293	U	0.441	0.442	1.00	0.740	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*72.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.845**		0.516	0.520	5.00	0.740	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17115 MW-5 DUP

Lab Sample ID: 400-193437-3

Date Collected: 09/08/20 14:36
Matrix: Water
Date Received: 09/21/20 10:55

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.11		0.373	0.387	1.00	0.338	pCi/L	09/28/20 06:20	10/22/20 10:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.61		0.564	0.583	1.00	0.765	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*75.1*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.72		0.676	0.700	5.00	0.765	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17116 MW-6

Lab Sample ID: 400-193437-4

Date Collected: 09/08/20 16:00
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.349	U	0.262	0.264	1.00	0.376	pCi/L	09/28/20 06:20	10/22/20 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0533	U	0.403	0.403	1.00	0.716	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*73.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.402	U	0.481	0.482	5.00	0.716	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17117 FB-1

Lab Sample ID: 400-193437-5

Date Collected: 09/08/20 16:35
Matrix: Water
Date Received: 09/21/20 10:55

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00439	U	0.122	0.122	1.00	0.264	pCi/L	09/28/20 06:20	10/22/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.191	U	0.351	0.351	1.00	0.668	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*73.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.186	U	0.372	0.372	5.00	0.668	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17118 MW-7

Lab Sample ID: 400-193437-6

Date Collected: 09/08/20 17:03
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.462**		0.238	0.242	1.00	0.272	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.665	U	0.497	0.501	1.00	0.786	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*74.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.13**		0.551	0.556	5.00	0.786	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17119 MW-11

Lab Sample ID: 400-193437-7

Date Collected: 09/08/20 17:55
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.395**		0.228	0.231	1.00	0.285	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0724	U	0.370	0.370	1.00	0.652	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*72.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.468	U	0.435	0.436	5.00	0.652	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17120 MW-8

Lab Sample ID: 400-193437-8

Date Collected: 09/08/20 18:40
Matrix: Water
Date Received: 09/21/20 10:55

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356	U	0.254	0.256	1.00	0.358	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.331	U	0.414	0.416	1.00	0.792	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*74.8*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0249	U	0.486	0.488	5.00	0.792	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17121 MW-3

Lab Sample ID: 400-193437-9

Date Collected: 09/09/20 08:35
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.281	U	0.220	0.222	1.00	0.319	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.769**		0.425	0.431	1.00	0.637	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*74.4*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.05**		0.479	0.485	5.00	0.637	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17122 MW-2

Lab Sample ID: 400-193437-10

Date Collected: 09/09/20 09:29
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.627**		0.296	0.302	1.00	0.368	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0258	U	0.387	0.387	1.00	0.688	pCi/L	09/28/20 06:57	10/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*
Y Carrier	*71.4*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.653	U	0.487	0.491	5.00	0.688	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17123 MW-1

Lab Sample ID: 400-193437-11

Date Collected: 09/09/20 10:23
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.730		0.275	0.283	1.00	0.256	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.04		0.437	0.447	1.00	0.611	pCi/L	09/28/20 06:57	10/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*
Y Carrier	*73.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.77		0.516	0.529	5.00	0.611	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17124 MW-9

Lab Sample ID: 400-193437-12

Date Collected: 09/09/20 11:15
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.04		0.328	0.341	1.00	0.272	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.7*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.07		0.460	0.471	1.00	0.648	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.7*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*72.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.11		0.565	0.581	5.00	0.648	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17125 FB-2

Lab Sample ID: 400-193437-13

Date Collected: 09/09/20 11:50
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0575	U	0.112	0.112	1.00	0.281	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.498	U	0.386	0.389	1.00	0.607	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*71.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.440	U	0.402	0.405	5.00	0.607	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17126 MW-10

Date Collected: 09/09/20 12:15
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.599		0.275	0.280	1.00	0.318	pCi/L	09/28/20 06:20	10/22/20 14:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.724		0.392	0.397	1.00	0.583	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*79.3*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.32		0.479	0.486	5.00	0.583	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17127 MW-10 DUP

Date Collected: 09/09/20 12:15
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.811**		0.313	0.322	1.00	0.324	pCi/L	09/28/20 06:20	10/22/20 14:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.205	U	0.391	0.392	1.00	0.668	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*71.8*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.02**		0.501	0.507	5.00	0.668	pCi/L		10/23/20 16:13	1

Client Sample Results

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17128 EB-1

Date Collected: 09/09/20 12:40
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-16

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.306	U	0.223	0.224	1.00	0.324	pCi/L	09/28/20 06:20	10/22/20 22:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*09/28/20 06:20*	*10/22/20 22:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.108	U	0.307	0.307	1.00	0.573	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*77.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.198	U	0.379	0.380	5.00	0.573	pCi/L		10/23/20 16:13	1

Definitions/Glossary

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17113 MW-4
Lab Sample ID: 400-193437-1

Date Collected: 09/08/20 13:36
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:24	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17114 MW-5
Lab Sample ID: 400-193437-2

Date Collected: 09/08/20 14:36
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:24	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17115 MW-5 DUP
Lab Sample ID: 400-193437-3

Date Collected: 09/08/20 14:36
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:24	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17116 MW-6
Lab Sample ID: 400-193437-4

Date Collected: 09/08/20 16:00
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:25	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Lab Chronicle

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17117 FB-1 — Lab Sample ID: 400-193437-5

Date Collected: 09/08/20 16:35 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:21	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17118 MW-7 — Lab Sample ID: 400-193437-6

Date Collected: 09/08/20 17:03 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17119 MW-11 — Lab Sample ID: 400-193437-7

Date Collected: 09/08/20 17:55 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17120 MW-8 — Lab Sample ID: 400-193437-8

Date Collected: 09/08/20 18:40 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Lab Chronicle

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17121 MW-3

Lab Sample ID: 400-193437-9
Date Collected: 09/09/20 08:35
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17122 MW-2

Lab Sample ID: 400-193437-10
Date Collected: 09/09/20 09:29
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:51	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17123 MW-1

Lab Sample ID: 400-193437-11
Date Collected: 09/09/20 10:23
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:51	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17124 MW-9

Lab Sample ID: 400-193437-12
Date Collected: 09/09/20 11:15
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Lab Chronicle

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17125 FB-2
Lab Sample ID: 400-193437-13
Date Collected: 09/09/20 11:50
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17126 MW-10
Lab Sample ID: 400-193437-14
Date Collected: 09/09/20 12:15
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:07	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17127 MW-10 DUP
Lab Sample ID: 400-193437-15
Date Collected: 09/09/20 12:15
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:07	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17128 EB-1
Lab Sample ID: 400-193437-16
Date Collected: 09/09/20 12:40
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 22:00	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Laboratory References:

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

QC Association Summary

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Rad

Prep Batch: 483946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193437-1	BA17113 MW-4	Total/NA	Water	PrecSep-21	
400-193437-2	BA17114 MW-5	Total/NA	Water	PrecSep-21	
400-193437-3	BA17115 MW-5 DUP	Total/NA	Water	PrecSep-21	
400-193437-4	BA17116 MW-6	Total/NA	Water	PrecSep-21	
400-193437-5	BA17117 FB-1	Total/NA	Water	PrecSep-21	
400-193437-6	BA17118 MW-7	Total/NA	Water	PrecSep-21	
400-193437-7	BA17119 MW-11	Total/NA	Water	PrecSep-21	
400-193437-8	BA17120 MW-8	Total/NA	Water	PrecSep-21	
400-193437-9	BA17121 MW-3	Total/NA	Water	PrecSep-21	
400-193437-10	BA17122 MW-2	Total/NA	Water	PrecSep-21	
400-193437-11	BA17123 MW-1	Total/NA	Water	PrecSep-21	
400-193437-12	BA17124 MW-9	Total/NA	Water	PrecSep-21	
400-193437-13	BA17125 FB-2	Total/NA	Water	PrecSep-21	
400-193437-14	BA17126 MW-10	Total/NA	Water	PrecSep-21	
400-193437-15	BA17127 MW-10 DUP	Total/NA	Water	PrecSep-21	
400-193437-16	BA17128 EB-1	Total/NA	Water	PrecSep-21	
MB 160-483946/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-483946/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-193437-4 MS	BA17116 MW-6	Total/NA	Water	PrecSep-21	
400-193437-4 MSD	BA17116 MW-6	Total/NA	Water	PrecSep-21	

Prep Batch: 483948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193437-1	BA17113 MW-4	Total/NA	Water	PrecSep_0	
400-193437-2	BA17114 MW-5	Total/NA	Water	PrecSep_0	
400-193437-3	BA17115 MW-5 DUP	Total/NA	Water	PrecSep_0	
400-193437-4	BA17116 MW-6	Total/NA	Water	PrecSep_0	
400-193437-5	BA17117 FB-1	Total/NA	Water	PrecSep_0	
400-193437-6	BA17118 MW-7	Total/NA	Water	PrecSep_0	
400-193437-7	BA17119 MW-11	Total/NA	Water	PrecSep_0	
400-193437-8	BA17120 MW-8	Total/NA	Water	PrecSep_0	
400-193437-9	BA17121 MW-3	Total/NA	Water	PrecSep_0	
400-193437-10	BA17122 MW-2	Total/NA	Water	PrecSep_0	
400-193437-11	BA17123 MW-1	Total/NA	Water	PrecSep_0	
400-193437-12	BA17124 MW-9	Total/NA	Water	PrecSep_0	
400-193437-13	BA17125 FB-2	Total/NA	Water	PrecSep_0	
400-193437-14	BA17126 MW-10	Total/NA	Water	PrecSep_0	
400-193437-15	BA17127 MW-10 DUP	Total/NA	Water	PrecSep_0	
400-193437-16	BA17128 EB-1	Total/NA	Water	PrecSep_0	
MB 160-483948/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-483948/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-193437-4 MS	BA17116 MW-6	Total/NA	Water	PrecSep_0	
400-193437-4 MSD	BA17116 MW-6	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-483946/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1918		0.132	0.133	1.00	0.174	pCi/L	09/28/20 06:20	10/22/20 22:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.2*		*40 - 110*	*09/28/20 06:20*	*10/22/20 22:01*	*1*

Lab Sample ID: LCS 160-483946/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	11.03		1.36	1.00	0.323	pCi/L	97	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*78.7*		*40 - 110*

Lab Sample ID: 400-193437-4 MS — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.349	U	15.1	14.05		1.73	1.00	0.347	pCi/L	90	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*83.1*		*40 - 110*

Lab Sample ID: 400-193437-4 MSD — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.349	U	15.1	15.22		1.80	1.00	0.377	pCi/L	98	75 - 138	0.33	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*89.3*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-483948/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486421 — **Prep Batch: 483948**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1672	U	0.273	0.273	1.00	0.461	pCi/L	09/28/20 06:57	10/21/20 11:52	1

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

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110	09/28/20 06:57	10/21/20 11:52	1
Y Carrier	79.3		40 - 110	09/28/20 06:57	10/21/20 11:52	1

Lab Sample ID: LCS 160-483948/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486424 — **Prep Batch: 483948**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.72	9.436		1.18	1.00	0.496	pCi/L	122	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	78.7		40 - 110
Y Carrier	75.1		40 - 110

Lab Sample ID: 400-193437-4 MS — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486424 — **Prep Batch: 483948**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.0533	U	10.3	13.67		1.66	1.00	0.643	pCi/L	132	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	83.1		40 - 110
Y Carrier	75.5		40 - 110

Lab Sample ID: 400-193437-4 MSD — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486424 — **Prep Batch: 483948**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.0533	U	10.3	12.90		1.57	1.00	0.658	pCi/L	125	45 - 150	0.24	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	89.3		40 - 110
Y Carrier	74.0		40 - 110

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Anthony Goggins	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 1
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #: APC67309-0001			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Gypsum 1299	SSOW#:			

Analysis Requested

400-193437 COC

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA17113	9/8/20	13:36	G	Water						X	1	MW-4
BA17114	9/8/20	14:36	G	Water						X	1	MW-5
BA17115	9/8/20	14:36	G	Water						X	1	MW-5 DUP (Sample Duplicate)
BA17116	9/8/20	16:00	G	Water		X				X	3	MW-6
BA17117	9/8/20	16:35	G	Water						X	1	FB-1 (Field Blank)
BA17118	9/8/20	17:03	G	Water						X	1	MW-7
BA17119	9/8/20	17:55	G	Water						X	1	MW-11
BA17120	9/8/20	18:40	G	Water						X	1	MW-8
BA17121	9/9/20	08:35	G	Water						X	1	MW-3
BA17122	9/9/20	09:29	G	Water						X	1	MW-2
BA17123	9/9/20	10:23	G	Water						X	1	MW-1
BA17124	9/9/20	11:15	G	Water						X	1	MW-9
BA17125	9/9/20	11:50	G	Water						X	1	FB-2 (Field Blank)
BA17126	9/9/20	12:15	G	Water						X	1	MW-10
BA17127	9/9/20	12:15	G	Water						X	1	MW-10 DUP (Sample Duplicate)
BA17128	9/9/20	12:40	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 44048 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 09/10/2020 1610	Company: Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	0	Company	Received by:	Date/Time: 9/21/20 10:55	Company: TAPen
Custody Seals Intact:			Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

21.7°C
TR 7

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-193437-1
SDG Number: Barry Gypsum 1299

Login Number: 193437
List Number: 1
Creator: Gore, Beija K

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	21.7 °C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-193437-1
SDG Number: Barry Gypsum 1299

Login Number: 193437
List Number: 2
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 09/25/20 08:33 AM

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

Accreditation/Certification Summary

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

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	12-01-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-1	9/9/2020 10:05	Conductivity	66.24	uS/cm
BY-GSA-MW-1	9/9/2020 10:05	DO	0.15	mg/L
BY-GSA-MW-1	9/9/2020 10:05	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:05	Oxidation Reduction Potention	190.03	mv
BY-GSA-MW-1	9/9/2020 10:05	pH	4.72	pH
BY-GSA-MW-1	9/9/2020 10:05	Temperature	21.43	C
BY-GSA-MW-1	9/9/2020 10:05	Turbidity	2.9	NTU
BY-GSA-MW-1	9/9/2020 10:10	Conductivity	66.22	uS/cm
BY-GSA-MW-1	9/9/2020 10:10	DO	0.11	mg/L
BY-GSA-MW-1	9/9/2020 10:10	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:10	Oxidation Reduction Potention	194.91	mv
BY-GSA-MW-1	9/9/2020 10:10	pH	4.73	pH
BY-GSA-MW-1	9/9/2020 10:10	Temperature	21.44	C
BY-GSA-MW-1	9/9/2020 10:10	Turbidity	1.31	NTU
BY-GSA-MW-1	9/9/2020 10:15	Conductivity	66.66	uS/cm
BY-GSA-MW-1	9/9/2020 10:15	DO	0.11	mg/L
BY-GSA-MW-1	9/9/2020 10:15	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:15	Oxidation Reduction Potention	199.88	mv
BY-GSA-MW-1	9/9/2020 10:15	pH	4.67	pH
BY-GSA-MW-1	9/9/2020 10:15	Temperature	21.42	C
BY-GSA-MW-1	9/9/2020 10:15	Turbidity	1.02	NTU
BY-GSA-MW-1	9/9/2020 10:20	Conductivity	66.68	uS/cm
BY-GSA-MW-1	9/9/2020 10:20	DO	0.1	mg/L
BY-GSA-MW-1	9/9/2020 10:20	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:20	Oxidation Reduction Potention	205.82	mv
BY-GSA-MW-1	9/9/2020 10:20	pH	4.65	pH
BY-GSA-MW-1	9/9/2020 10:20	Temperature	21.21	C
BY-GSA-MW-1	9/9/2020 10:20	Turbidity	1.02	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-2	9/9/2020 9:10	Conductivity	61.53	uS/cm
BY-GSA-MW-2	9/9/2020 9:10	DO	6.77	mg/L
BY-GSA-MW-2	9/9/2020 9:10	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:10	Oxidation Reduction Potention	220.73	mv
BY-GSA-MW-2	9/9/2020 9:10	pH	4.61	pH
BY-GSA-MW-2	9/9/2020 9:10	Temperature	20.84	C
BY-GSA-MW-2	9/9/2020 9:10	Turbidity	9.87	NTU
BY-GSA-MW-2	9/9/2020 9:15	Conductivity	60.37	uS/cm
BY-GSA-MW-2	9/9/2020 9:15	DO	6.67	mg/L
BY-GSA-MW-2	9/9/2020 9:15	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:15	Oxidation Reduction Potention	235.03	mv
BY-GSA-MW-2	9/9/2020 9:15	pH	4.65	pH
BY-GSA-MW-2	9/9/2020 9:15	Temperature	20.79	C
BY-GSA-MW-2	9/9/2020 9:15	Turbidity	12.1	NTU
BY-GSA-MW-2	9/9/2020 9:20	Conductivity	60.11	uS/cm
BY-GSA-MW-2	9/9/2020 9:20	DO	6.61	mg/L
BY-GSA-MW-2	9/9/2020 9:20	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:20	Oxidation Reduction Potention	245.85	mv
BY-GSA-MW-2	9/9/2020 9:20	pH	4.66	pH
BY-GSA-MW-2	9/9/2020 9:20	Temperature	20.82	C
BY-GSA-MW-2	9/9/2020 9:20	Turbidity	10.9	NTU
BY-GSA-MW-2	9/9/2020 9:25	Conductivity	59.7	uS/cm
BY-GSA-MW-2	9/9/2020 9:25	DO	6.52	mg/L
BY-GSA-MW-2	9/9/2020 9:25	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:25	Oxidation Reduction Potention	256.03	mv
BY-GSA-MW-2	9/9/2020 9:25	pH	4.67	pH
BY-GSA-MW-2	9/9/2020 9:25	Temperature	20.79	C
BY-GSA-MW-2	9/9/2020 9:25	Turbidity	9.32	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-3	9/9/2020 8:18	Conductivity	52.45	uS/cm
BY-GSA-MW-3	9/9/2020 8:18	DO	6.12	mg/L
BY-GSA-MW-3	9/9/2020 8:18	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:18	Oxidation Reduction Potention	211.13	mv
BY-GSA-MW-3	9/9/2020 8:18	pH	4.81	pH
BY-GSA-MW-3	9/9/2020 8:18	Temperature	20.68	C
BY-GSA-MW-3	9/9/2020 8:18	Turbidity	4.55	NTU
BY-GSA-MW-3	9/9/2020 8:23	Conductivity	52.33	uS/cm
BY-GSA-MW-3	9/9/2020 8:23	DO	5.97	mg/L
BY-GSA-MW-3	9/9/2020 8:23	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:23	Oxidation Reduction Potention	218.02	mv
BY-GSA-MW-3	9/9/2020 8:23	pH	4.84	pH
BY-GSA-MW-3	9/9/2020 8:23	Temperature	20.69	C
BY-GSA-MW-3	9/9/2020 8:23	Turbidity	3.68	NTU
BY-GSA-MW-3	9/9/2020 8:28	Conductivity	52.43	uS/cm
BY-GSA-MW-3	9/9/2020 8:28	DO	5.95	mg/L
BY-GSA-MW-3	9/9/2020 8:28	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:28	Oxidation Reduction Potention	221.92	mv
BY-GSA-MW-3	9/9/2020 8:28	pH	4.74	pH
BY-GSA-MW-3	9/9/2020 8:28	Temperature	20.67	C
BY-GSA-MW-3	9/9/2020 8:28	Turbidity	3.22	NTU
BY-GSA-MW-3	9/9/2020 8:33	Conductivity	52.56	uS/cm
BY-GSA-MW-3	9/9/2020 8:33	DO	5.92	mg/L
BY-GSA-MW-3	9/9/2020 8:33	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:33	Oxidation Reduction Potention	236.75	mv
BY-GSA-MW-3	9/9/2020 8:33	pH	4.76	pH
BY-GSA-MW-3	9/9/2020 8:33	Temperature	20.6	C
BY-GSA-MW-3	9/9/2020 8:33	Turbidity	2.24	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-4	9/8/2020 13:18	Conductivity	54.34	uS/cm
BY-GSA-MW-4	9/8/2020 13:18	DO	6.59	mg/L
BY-GSA-MW-4	9/8/2020 13:18	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:18	Oxidation Reduction Potention	252.37	mv
BY-GSA-MW-4	9/8/2020 13:18	pH	4.72	pH
BY-GSA-MW-4	9/8/2020 13:18	Temperature	22.76	C
BY-GSA-MW-4	9/8/2020 13:18	Turbidity	9.59	NTU
BY-GSA-MW-4	9/8/2020 13:23	Conductivity	54.13	uS/cm
BY-GSA-MW-4	9/8/2020 13:23	DO	6.5	mg/L
BY-GSA-MW-4	9/8/2020 13:23	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:23	Oxidation Reduction Potention	258.17	mv
BY-GSA-MW-4	9/8/2020 13:23	pH	4.76	pH
BY-GSA-MW-4	9/8/2020 13:23	Temperature	23.01	C
BY-GSA-MW-4	9/8/2020 13:23	Turbidity	5.08	NTU
BY-GSA-MW-4	9/8/2020 13:28	Conductivity	53.88	uS/cm
BY-GSA-MW-4	9/8/2020 13:28	DO	6.46	mg/L
BY-GSA-MW-4	9/8/2020 13:28	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:28	Oxidation Reduction Potention	259.27	mv
BY-GSA-MW-4	9/8/2020 13:28	pH	4.8	pH
BY-GSA-MW-4	9/8/2020 13:28	Temperature	22.86	C
BY-GSA-MW-4	9/8/2020 13:28	Turbidity	4.67	NTU
BY-GSA-MW-4	9/8/2020 13:33	Conductivity	53.56	uS/cm
BY-GSA-MW-4	9/8/2020 13:33	DO	6.38	mg/L
BY-GSA-MW-4	9/8/2020 13:33	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:33	Oxidation Reduction Potention	267.52	mv
BY-GSA-MW-4	9/8/2020 13:33	pH	4.75	pH
BY-GSA-MW-4	9/8/2020 13:33	Temperature	22.86	C
BY-GSA-MW-4	9/8/2020 13:33	Turbidity	4.76	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-5	9/8/2020 14:13	Conductivity	86.5	uS/cm
BY-GSA-MW-5	9/8/2020 14:13	DO	4.77	mg/L
BY-GSA-MW-5	9/8/2020 14:13	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:13	Oxidation Reduction Potention	259.46	mv
BY-GSA-MW-5	9/8/2020 14:13	pH	4.76	pH
BY-GSA-MW-5	9/8/2020 14:13	Temperature	24.11	C
BY-GSA-MW-5	9/8/2020 14:13	Turbidity	2	NTU
BY-GSA-MW-5	9/8/2020 14:18	Conductivity	87.25	uS/cm
BY-GSA-MW-5	9/8/2020 14:18	DO	4.65	mg/L
BY-GSA-MW-5	9/8/2020 14:18	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:18	Oxidation Reduction Potention	266.65	mv
BY-GSA-MW-5	9/8/2020 14:18	pH	4.76	pH
BY-GSA-MW-5	9/8/2020 14:18	Temperature	24.02	C
BY-GSA-MW-5	9/8/2020 14:18	Turbidity	1.1	NTU
BY-GSA-MW-5	9/8/2020 14:23	Conductivity	81.77	uS/cm
BY-GSA-MW-5	9/8/2020 14:23	DO	4.78	mg/L
BY-GSA-MW-5	9/8/2020 14:23	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:23	Oxidation Reduction Potention	274.38	mv
BY-GSA-MW-5	9/8/2020 14:23	pH	4.7	pH
BY-GSA-MW-5	9/8/2020 14:23	Temperature	23.79	C
BY-GSA-MW-5	9/8/2020 14:23	Turbidity	0.9	NTU
BY-GSA-MW-5	9/8/2020 14:28	Conductivity	80.25	uS/cm
BY-GSA-MW-5	9/8/2020 14:28	DO	4.64	mg/L
BY-GSA-MW-5	9/8/2020 14:28	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:28	Oxidation Reduction Potention	273.36	mv
BY-GSA-MW-5	9/8/2020 14:28	pH	4.75	pH
BY-GSA-MW-5	9/8/2020 14:28	Temperature	23.91	C
BY-GSA-MW-5	9/8/2020 14:28	Turbidity	0.77	NTU
BY-GSA-MW-5	9/8/2020 14:33	Conductivity	78.96	uS/cm
BY-GSA-MW-5	9/8/2020 14:33	DO	4.68	mg/L
BY-GSA-MW-5	9/8/2020 14:33	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:33	Oxidation Reduction Potention	274.81	mv
BY-GSA-MW-5	9/8/2020 14:33	pH	4.77	pH
BY-GSA-MW-5	9/8/2020 14:33	Temperature	23.46	C
BY-GSA-MW-5	9/8/2020 14:33	Turbidity	0.62	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-6	9/8/2020 15:40	Conductivity	84.59	uS/cm
BY-GSA-MW-6	9/8/2020 15:40	DO	4.99	mg/L
BY-GSA-MW-6	9/8/2020 15:40	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:40	Oxidation Reduction Potention	224.8	mv
BY-GSA-MW-6	9/8/2020 15:40	pH	5.1	pH
BY-GSA-MW-6	9/8/2020 15:40	Temperature	23.4	C
BY-GSA-MW-6	9/8/2020 15:40	Turbidity	1.34	NTU
BY-GSA-MW-6	9/8/2020 15:45	Conductivity	84.73	uS/cm
BY-GSA-MW-6	9/8/2020 15:45	DO	4.94	mg/L
BY-GSA-MW-6	9/8/2020 15:45	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:45	Oxidation Reduction Potention	232.41	mv
BY-GSA-MW-6	9/8/2020 15:45	pH	5.17	pH
BY-GSA-MW-6	9/8/2020 15:45	Temperature	23.5	C
BY-GSA-MW-6	9/8/2020 15:45	Turbidity	1.99	NTU
BY-GSA-MW-6	9/8/2020 15:50	Conductivity	85.2	uS/cm
BY-GSA-MW-6	9/8/2020 15:50	DO	4.91	mg/L
BY-GSA-MW-6	9/8/2020 15:50	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:50	Oxidation Reduction Potention	236	mv
BY-GSA-MW-6	9/8/2020 15:50	pH	5.17	pH
BY-GSA-MW-6	9/8/2020 15:50	Temperature	23.48	C
BY-GSA-MW-6	9/8/2020 15:50	Turbidity	2.11	NTU
BY-GSA-MW-6	9/8/2020 15:55	Conductivity	85.69	uS/cm
BY-GSA-MW-6	9/8/2020 15:55	DO	4.88	mg/L
BY-GSA-MW-6	9/8/2020 15:55	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:55	Oxidation Reduction Potention	241.31	mv
BY-GSA-MW-6	9/8/2020 15:55	pH	5.15	pH
BY-GSA-MW-6	9/8/2020 15:55	Temperature	23.41	C
BY-GSA-MW-6	9/8/2020 15:55	Turbidity	3.38	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-7	9/8/2020 16:33	Conductivity	38.78	uS/cm
BY-GSA-MW-7	9/8/2020 16:33	DO	3.79	mg/L
BY-GSA-MW-7	9/8/2020 16:33	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:33	Oxidation Reduction Potention	268.73	mv
BY-GSA-MW-7	9/8/2020 16:33	pH	4.78	pH
BY-GSA-MW-7	9/8/2020 16:33	Temperature	22.17	C
BY-GSA-MW-7	9/8/2020 16:33	Turbidity	6.53	NTU
BY-GSA-MW-7	9/8/2020 16:38	Conductivity	40.61	uS/cm
BY-GSA-MW-7	9/8/2020 16:38	DO	3.75	mg/L
BY-GSA-MW-7	9/8/2020 16:38	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:38	Oxidation Reduction Potention	285.44	mv
BY-GSA-MW-7	9/8/2020 16:38	pH	4.64	pH
BY-GSA-MW-7	9/8/2020 16:38	Temperature	22.04	C
BY-GSA-MW-7	9/8/2020 16:38	Turbidity	7.05	NTU
BY-GSA-MW-7	9/8/2020 16:43	Conductivity	42.77	uS/cm
BY-GSA-MW-7	9/8/2020 16:43	DO	3.72	mg/L
BY-GSA-MW-7	9/8/2020 16:43	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:43	Oxidation Reduction Potention	295.37	mv
BY-GSA-MW-7	9/8/2020 16:43	pH	4.56	pH
BY-GSA-MW-7	9/8/2020 16:43	Temperature	22.08	C
BY-GSA-MW-7	9/8/2020 16:43	Turbidity	6.61	NTU
BY-GSA-MW-7	9/8/2020 16:48	Conductivity	46.35	uS/cm
BY-GSA-MW-7	9/8/2020 16:48	DO	3.65	mg/L
BY-GSA-MW-7	9/8/2020 16:48	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:48	Oxidation Reduction Potention	303.52	mv
BY-GSA-MW-7	9/8/2020 16:48	pH	4.49	pH
BY-GSA-MW-7	9/8/2020 16:48	Temperature	22.03	C
BY-GSA-MW-7	9/8/2020 16:48	Turbidity	4.77	NTU
BY-GSA-MW-7	9/8/2020 16:53	Conductivity	47.13	uS/cm
BY-GSA-MW-7	9/8/2020 16:53	DO	3.62	mg/L
BY-GSA-MW-7	9/8/2020 16:53	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:53	Oxidation Reduction Potention	309.85	mv
BY-GSA-MW-7	9/8/2020 16:53	pH	4.43	pH
BY-GSA-MW-7	9/8/2020 16:53	Temperature	22.18	C
BY-GSA-MW-7	9/8/2020 16:53	Turbidity	3.96	NTU
BY-GSA-MW-7	9/8/2020 16:58	Conductivity	48.46	uS/cm
BY-GSA-MW-7	9/8/2020 16:58	DO	3.59	mg/L
BY-GSA-MW-7	9/8/2020 16:58	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:58	Oxidation Reduction Potention	316.7	mv
BY-GSA-MW-7	9/8/2020 16:58	pH	4.39	pH
BY-GSA-MW-7	9/8/2020 16:58	Temperature	22.14	C
BY-GSA-MW-7	9/8/2020 16:58	Turbidity	2.9	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-8	9/8/2020 18:21	Conductivity	42.02	uS/cm
BY-GSA-MW-8	9/8/2020 18:21	DO	1.02	mg/L
BY-GSA-MW-8	9/8/2020 18:21	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:21	Oxidation Reduction Potention	311.59	mv
BY-GSA-MW-8	9/8/2020 18:21	pH	4.39	pH
BY-GSA-MW-8	9/8/2020 18:21	Temperature	21.61	C
BY-GSA-MW-8	9/8/2020 18:21	Turbidity	6.46	NTU
BY-GSA-MW-8	9/8/2020 18:26	Conductivity	41.84	uS/cm
BY-GSA-MW-8	9/8/2020 18:26	DO	0.9	mg/L
BY-GSA-MW-8	9/8/2020 18:26	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:26	Oxidation Reduction Potention	319.36	mv
BY-GSA-MW-8	9/8/2020 18:26	pH	4.39	pH
BY-GSA-MW-8	9/8/2020 18:26	Temperature	21.57	C
BY-GSA-MW-8	9/8/2020 18:26	Turbidity	3.52	NTU
BY-GSA-MW-8	9/8/2020 18:31	Conductivity	41.87	uS/cm
BY-GSA-MW-8	9/8/2020 18:31	DO	0.87	mg/L
BY-GSA-MW-8	9/8/2020 18:31	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:31	Oxidation Reduction Potention	323.46	mv
BY-GSA-MW-8	9/8/2020 18:31	pH	4.37	pH
BY-GSA-MW-8	9/8/2020 18:31	Temperature	21.53	C
BY-GSA-MW-8	9/8/2020 18:31	Turbidity	2.85	NTU
BY-GSA-MW-8	9/8/2020 18:36	Conductivity	41.97	uS/cm
BY-GSA-MW-8	9/8/2020 18:36	DO	0.88	mg/L
BY-GSA-MW-8	9/8/2020 18:36	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:36	Oxidation Reduction Potention	327.58	mv
BY-GSA-MW-8	9/8/2020 18:36	pH	4.35	pH
BY-GSA-MW-8	9/8/2020 18:36	Temperature	21.56	C
BY-GSA-MW-8	9/8/2020 18:36	Turbidity	2.49	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-9	9/9/2020 10:58	Conductivity	74.85	uS/cm
BY-GSA-MW-9	9/9/2020 10:58	DO	1.61	mg/L
BY-GSA-MW-9	9/9/2020 10:58	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 10:58	Oxidation Reduction Potention	262.12	mv
BY-GSA-MW-9	9/9/2020 10:58	pH	4.46	pH
BY-GSA-MW-9	9/9/2020 10:58	Temperature	22.66	C
BY-GSA-MW-9	9/9/2020 10:58	Turbidity	4.57	NTU
BY-GSA-MW-9	9/9/2020 11:03	Conductivity	75.17	uS/cm
BY-GSA-MW-9	9/9/2020 11:03	DO	1.52	mg/L
BY-GSA-MW-9	9/9/2020 11:03	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 11:03	Oxidation Reduction Potention	286.29	mv
BY-GSA-MW-9	9/9/2020 11:03	pH	4.44	pH
BY-GSA-MW-9	9/9/2020 11:03	Temperature	22.37	C
BY-GSA-MW-9	9/9/2020 11:03	Turbidity	2.35	NTU
BY-GSA-MW-9	9/9/2020 11:08	Conductivity	75.17	uS/cm
BY-GSA-MW-9	9/9/2020 11:08	DO	1.51	mg/L
BY-GSA-MW-9	9/9/2020 11:08	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 11:08	Oxidation Reduction Potention	299.87	mv
BY-GSA-MW-9	9/9/2020 11:08	pH	4.46	pH
BY-GSA-MW-9	9/9/2020 11:08	Temperature	22.4	C
BY-GSA-MW-9	9/9/2020 11:08	Turbidity	1.62	NTU
BY-GSA-MW-9	9/9/2020 11:13	Conductivity	75.22	uS/cm
BY-GSA-MW-9	9/9/2020 11:13	DO	1.51	mg/L
BY-GSA-MW-9	9/9/2020 11:13	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 11:13	Oxidation Reduction Potention	310.36	mv
BY-GSA-MW-9	9/9/2020 11:13	pH	4.46	pH
BY-GSA-MW-9	9/9/2020 11:13	Temperature	22.47	C
BY-GSA-MW-9	9/9/2020 11:13	Turbidity	1.2	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-10	9/9/2020 11:46	Conductivity	58.59	uS/cm
BY-GSA-MW-10	9/9/2020 11:46	DO	4.16	mg/L
BY-GSA-MW-10	9/9/2020 11:46	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 11:46	Oxidation Reduction Potention	298.97	mv
BY-GSA-MW-10	9/9/2020 11:46	pH	4.59	pH
BY-GSA-MW-10	9/9/2020 11:46	Temperature	21.89	C
BY-GSA-MW-10	9/9/2020 11:46	Turbidity	18.2	NTU
BY-GSA-MW-10	9/9/2020 11:51	Conductivity	57.98	uS/cm
BY-GSA-MW-10	9/9/2020 11:51	DO	4.13	mg/L
BY-GSA-MW-10	9/9/2020 11:51	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 11:51	Oxidation Reduction Potention	313.31	mv
BY-GSA-MW-10	9/9/2020 11:51	pH	4.52	pH
BY-GSA-MW-10	9/9/2020 11:51	Temperature	21.77	C
BY-GSA-MW-10	9/9/2020 11:51	Turbidity	12.9	NTU
BY-GSA-MW-10	9/9/2020 11:56	Conductivity	57.74	uS/cm
BY-GSA-MW-10	9/9/2020 11:56	DO	4.16	mg/L
BY-GSA-MW-10	9/9/2020 11:56	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 11:56	Oxidation Reduction Potention	322.2	mv
BY-GSA-MW-10	9/9/2020 11:56	pH	4.51	pH
BY-GSA-MW-10	9/9/2020 11:56	Temperature	21.55	C
BY-GSA-MW-10	9/9/2020 11:56	Turbidity	12.3	NTU
BY-GSA-MW-10	9/9/2020 12:01	Conductivity	57.44	uS/cm
BY-GSA-MW-10	9/9/2020 12:01	DO	4.08	mg/L
BY-GSA-MW-10	9/9/2020 12:01	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 12:01	Oxidation Reduction Potention	320.69	mv
BY-GSA-MW-10	9/9/2020 12:01	pH	4.59	pH
BY-GSA-MW-10	9/9/2020 12:01	Temperature	22.5	C
BY-GSA-MW-10	9/9/2020 12:01	Turbidity	11.8	NTU
BY-GSA-MW-10	9/9/2020 12:06	Conductivity	58.11	uS/cm
BY-GSA-MW-10	9/9/2020 12:06	DO	3.91	mg/L
BY-GSA-MW-10	9/9/2020 12:06	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 12:06	Oxidation Reduction Potention	308.77	mv
BY-GSA-MW-10	9/9/2020 12:06	pH	4.59	pH
BY-GSA-MW-10	9/9/2020 12:06	Temperature	26.08	C
BY-GSA-MW-10	9/9/2020 12:06	Turbidity	10.71	NTU
BY-GSA-MW-10	9/9/2020 12:11	Conductivity	56.91	uS/cm
BY-GSA-MW-10	9/9/2020 12:11	DO	4.13	mg/L
BY-GSA-MW-10	9/9/2020 12:11	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 12:11	Oxidation Reduction Potention	326.52	mv
BY-GSA-MW-10	9/9/2020 12:11	pH	4.58	pH
BY-GSA-MW-10	9/9/2020 12:11	Temperature	22.04	C
BY-GSA-MW-10	9/9/2020 12:11	Turbidity	8.93	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-11	9/8/2020 17:36	Conductivity	33.38	uS/cm
BY-GSA-MW-11	9/8/2020 17:36	DO	5.62	mg/L
BY-GSA-MW-11	9/8/2020 17:36	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:36	Oxidation Reduction Potention	322.11	mv
BY-GSA-MW-11	9/8/2020 17:36	pH	4.21	pH
BY-GSA-MW-11	9/8/2020 17:36	Temperature	23.03	C
BY-GSA-MW-11	9/8/2020 17:36	Turbidity	2.06	NTU
BY-GSA-MW-11	9/8/2020 17:41	Conductivity	32.29	uS/cm
BY-GSA-MW-11	9/8/2020 17:41	DO	5.59	mg/L
BY-GSA-MW-11	9/8/2020 17:41	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:41	Oxidation Reduction Potention	314.78	mv
BY-GSA-MW-11	9/8/2020 17:41	pH	4.18	pH
BY-GSA-MW-11	9/8/2020 17:41	Temperature	23.08	C
BY-GSA-MW-11	9/8/2020 17:41	Turbidity	1.54	NTU
BY-GSA-MW-11	9/8/2020 17:46	Conductivity	33.13	uS/cm
BY-GSA-MW-11	9/8/2020 17:46	DO	5.58	mg/L
BY-GSA-MW-11	9/8/2020 17:46	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:46	Oxidation Reduction Potention	310.78	mv
BY-GSA-MW-11	9/8/2020 17:46	pH	4.14	pH
BY-GSA-MW-11	9/8/2020 17:46	Temperature	23.07	C
BY-GSA-MW-11	9/8/2020 17:46	Turbidity	0.96	NTU
BY-GSA-MW-11	9/8/2020 17:51	Conductivity	33.02	uS/cm
BY-GSA-MW-11	9/8/2020 17:51	DO	5.57	mg/L
BY-GSA-MW-11	9/8/2020 17:51	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:51	Oxidation Reduction Potention	312.57	mv
BY-GSA-MW-11	9/8/2020 17:51	pH	4.12	pH
BY-GSA-MW-11	9/8/2020 17:51	Temperature	23.1	C
BY-GSA-MW-11	9/8/2020 17:51	Turbidity	1.06	NTU

Appendix C

1st
Semi-Annual
Monitoring Event

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/23/2020, 4:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**3/30/2020**	**0.304**	**Yes**	**56**	**80.36**	**n/a**	**0.000...**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**BY-GSA-MW-6**	**1.979**	**n/a**	**3/30/2020**	**7.56**	**Yes**	**56**	**0**	**No**	**0.001075**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-6**	**5.032**	**4.493**	**3/30/2020**	**5.51**	**Yes**	**64**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-9**	**5.032**	**4.493**	**3/31/2020**	**4.45**	**Yes**	**64**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/23/2020, 4:29 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	3/30/2020	0.1ND	No	56	80.36	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**3/30/2020**	**0.304**	**Yes**	**56**	**80.36**	**n/a**	**0.000...**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	3/30/2020	0.1ND	No	56	80.36	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	3/30/2020	0.1ND	No	56	80.36	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	3/31/2020	0.112	No	56	80.36	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	3/31/2020	0.0442	No	56	80.36	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-PZ-11	0.188	n/a	3/31/2020	0.0864	No	56	80.36	n/a	0.000...	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-GSA-MW-5	1.979	n/a	3/30/2020	1.26	No	56	0	No	0.001075	Param Inter 1 of 2
Calcium (mg/L)	**BY-GSA-MW-6**	**1.979**	**n/a**	**3/30/2020**	**7.56**	**Yes**	**56**	**0**	**No**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-GSA-MW-7	1.979	n/a	3/30/2020	1.32	No	56	0	No	0.001075	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-8	1.979	n/a	3/30/2020	0.841	No	56	0	No	0.001075	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-9	1.979	n/a	3/31/2020	1.67	No	56	0	No	0.001075	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-10	1.979	n/a	3/31/2020	0.98	No	56	0	No	0.001075	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-PZ-11	1.979	n/a	3/31/2020	0.663	No	56	0	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.1	n/a	3/30/2020	0.1ND	No	60	51.67	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.1	n/a	3/30/2020	0.1ND	No	60	51.67	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.1	n/a	3/30/2020	0.1ND	No	60	51.67	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.1	n/a	3/30/2020	0.1ND	No	60	51.67	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.1	n/a	3/31/2020	0.1ND	No	60	51.67	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.1	n/a	3/31/2020	0.1ND	No	60	51.67	n/a	0.000...	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-PZ-11	0.1	n/a	3/31/2020	0.1ND	No	60	51.67	n/a	0.000...	NP Inter (NDs) 1 of 2
pH (pH)	BY-GSA-MW-5	5.032	4.493	3/30/2020	4.83	No	64	0	No	0.000...	Param Inter 1 of 2
pH (pH)	**BY-GSA-MW-6**	**5.032**	**4.493**	**3/30/2020**	**5.51**	**Yes**	**64**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
pH (pH)	BY-GSA-MW-7	5.032	4.493	3/30/2020	4.91	No	64	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-8	5.032	4.493	3/30/2020	4.92	No	64	0	No	0.000...	Param Inter 1 of 2
pH (pH)	**BY-GSA-MW-9**	**5.032**	**4.493**	**3/31/2020**	**4.45**	**Yes**	**64**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
pH (pH)	BY-GSA-MW-10	5.032	4.493	3/31/2020	4.55	No	64	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-PZ-11	5.032	4.493	3/31/2020	4.91	No	64	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	3/30/2020	32	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-GSA-MW-6	58	n/a	3/30/2020	58	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-GSA-MW-7	58	n/a	3/30/2020	39.3	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-GSA-MW-8	58	n/a	3/30/2020	30	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-GSA-MW-9	58	n/a	3/31/2020	37.3	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-GSA-MW-10	58	n/a	3/31/2020	33.3	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-GSA-PZ-11	58	n/a	3/31/2020	12.5ND	No	56	12.5	n/a	0.000...	NP Inter (normality) ...

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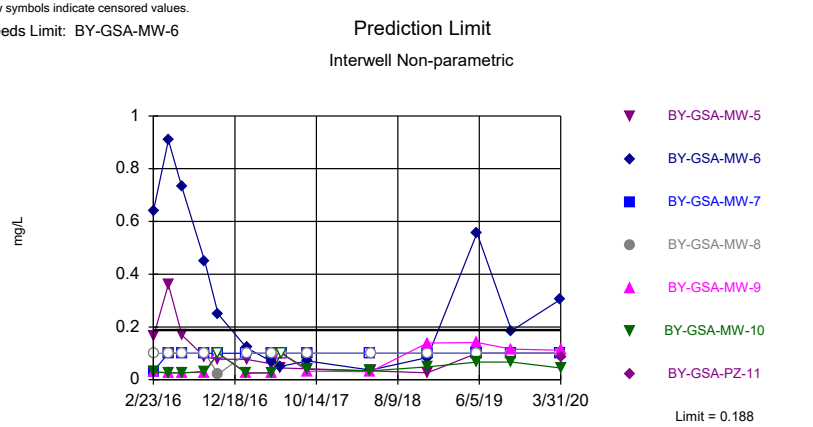
Hollow symbols indicate censored values.

Exceeds Limit: BY-GSA-MW-6

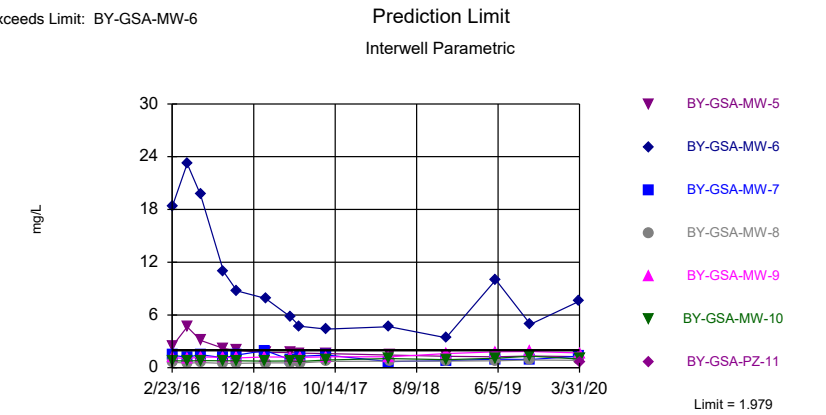


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 56 background values. 80.36% NDs. Annual per-constituent alpha = 0.008468. Individual comparison alpha = 0.0006072 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 7/23/2020 4:28 PM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Exceeds Limit: BY-GSA-MW-6

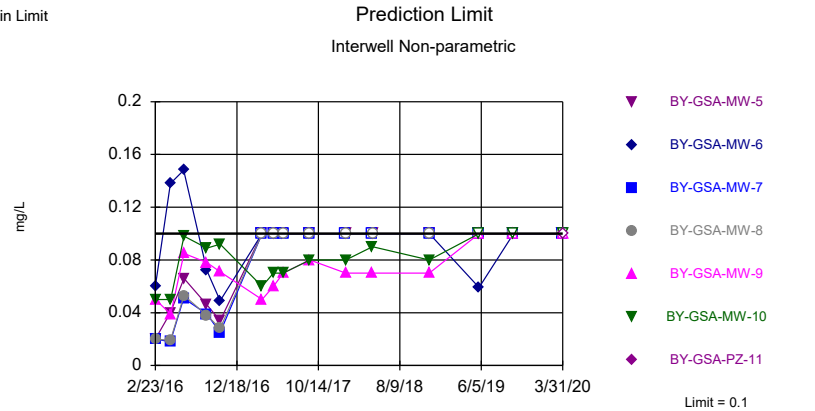


Background Data Summary: Mean=1.457, Std. Dev.=0.2711, n=56. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9776, critical = 0.942. Kappa = 1.928 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Calcium Analysis Run 7/23/2020 4:28 PM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Within Limit

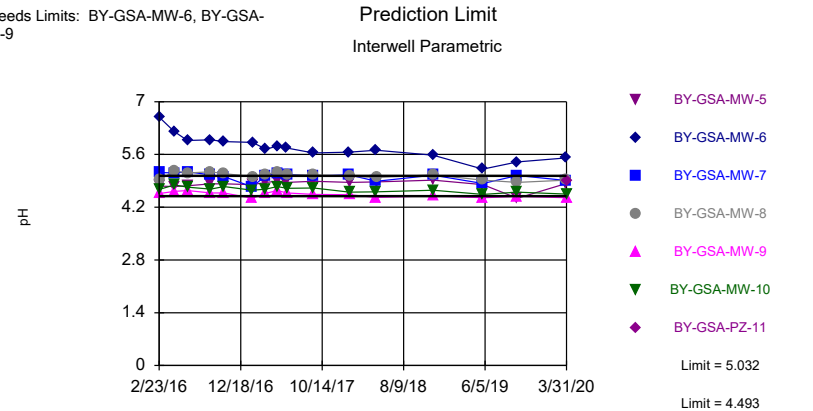


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 60 background values. 51.67% NDs. Annual per-constituent alpha = 0.007263. Individual comparison alpha = 0.0005205 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 7/23/2020 4:28 PM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Exceeds Limits: BY-GSA-MW-6, BY-GSA-MW-9



Background Data Summary: Mean=4.763, Std. Dev.=0.1409, n=64. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9742, critical = 0.947. Kappa = 1.915 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005373. Comparing 7 points to limit.

Constituent: pH Analysis Run 7/23/2020 4:28 PM View: Interwell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-8	BY-GSA-MW-7	BY-GSA-MW-5	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)
2/23/2016	0.0212 (J)	0.0294 (J)	0.0297 (J)	<0.1	0.0314 (J)	0.163	0.0257 (J)	<0.1	0.0252 (J)
4/18/2016				<0.1	<0.1	0.361			
4/19/2016	<0.1	0.0257 (J)	0.0269 (J)				<0.1	<0.1	<0.1
6/6/2016	<0.1				<0.1		<0.1		
6/7/2016		0.0257 (J)	0.0271 (J)	<0.1		0.169		<0.1	0.0202 (J)
8/30/2016	<0.1	0.0317 (J)	0.0272 (J)	<0.1	<0.1	0.0858 (J)	<0.1	<0.1	<0.1
10/18/2016	<0.1	<0.1	<0.1	0.0207 (J)	<0.1	0.0778 (J)	0.022 (J)	<0.1	<0.1
1/30/2017		0.0243 (J)	0.0269 (J)		<0.1				
1/31/2017	<0.1			<0.1		0.077 (J)	<0.1	<0.1	<0.1
5/2/2017	<0.1	0.0259 (J)	0.027 (J)	<0.1	<0.1	0.0602 (J)	<0.1	<0.1	<0.1
6/6/2017	<0.1					0.0442 (J)	<0.1	<0.1	<0.1
6/7/2017		<0.1	<0.1	<0.1	<0.1				
9/12/2017					<0.1		<0.1		
9/13/2017	<0.1	0.0394 (J)	0.032 (J)	<0.1		0.0411 (J)		<0.1	<0.1
5/1/2018		0.0338 (J)	0.0302 (J)		<0.1		<0.1	<0.1	<0.1
5/2/2018	0.0362 (J)			<0.1		0.0334 (J)			
11/26/2018		0.0484 (J)	0.139				<0.1		
11/27/2018	0.11			<0.1	<0.1	0.0265 (J)		<0.1	0.0207 (J)
5/28/2019				<0.1	<0.1	<0.1	<0.1		
5/29/2019	0.188	0.0669 (J)	0.141					<0.1	<0.1
10/2/2019	0.097 (J)	0.0671 (J)	0.116	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3/30/2020				<0.1	<0.1	<0.1			
3/31/2020	0.157	0.0442 (J)	0.112				<0.1	<0.1	<0.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-PZ-11
2/23/2016	0.638	
4/18/2016	0.908	
4/19/2016		
6/6/2016	0.733	
6/7/2016		
8/30/2016	0.448	
10/18/2016	0.249	
1/30/2017		
1/31/2017	0.121	
5/2/2017	0.0695 (J)	
6/6/2017	0.0509 (J)	
6/7/2017		
9/12/2017	0.0709 (J)	
9/13/2017		
5/1/2018	0.0365 (J)	
5/2/2018		
11/26/2018	0.0836 (J)	
11/27/2018		
5/28/2019	0.556	
5/29/2019		
10/2/2019	0.186	
3/30/2020	0.304	
3/31/2020		0.0864 (J)

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-8	BY-GSA-MW-7	BY-GSA-MW-5	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)
2/23/2016	1.28	0.795	1.15	0.618	1.4	2.42	1.42	1.77	1.11
4/18/2016				0.505	1.2	4.65			
4/19/2016	1.19	0.761	1.04				1.31	1.68	1.09
6/6/2016	1.19				1.48		1.35		
6/7/2016		0.799	1.22	0.587		3.1		1.68	1.16
8/30/2016	1.11	0.788	1.18	0.495 (J)	1.13	2.19	1.31	1.62	1.08
10/18/2016	1.04	0.788	1.12	0.503	1.45	1.97	1.22	1.53	1.03
1/30/2017		0.755	1.23		1.95				
1/31/2017	1.19			0.554		1.73	1.36	1.65	1.23
5/2/2017	1.05	0.763	1.2	0.548	0.908	1.74	1.24	1.58	1.28
6/6/2017	0.978					1.66	1.28	1.55	1.25
6/7/2017		0.706	1.17	0.545	1.29				
9/12/2017					1.44		1.47		
9/13/2017	1.14	0.873	1.25	0.723		1.61		1.71	1.6
5/1/2018		1.05	1.25		0.695		1.47	1.76	1.58
5/2/2018	1.64			0.751		1.44			
11/26/2018		0.922	1.61				1.52		
11/27/2018	2.01			0.743	0.798	1.3		1.69	1.49
5/28/2019				0.789	0.973	1.25	1.6		
5/29/2019	1.85	1.07	1.8					1.74	1.59
10/2/2019	1.55	1.32	1.85	0.882	0.929	1.33	1.7	1.86	1.7
3/30/2020				0.841	1.32	1.26			
3/31/2020	1.96	0.98	1.67				1.78	1.92	1.43

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-PZ-11
2/23/2016	18.3	
4/18/2016	23.2	
4/19/2016		
6/6/2016	19.7	
6/7/2016		
8/30/2016	10.9	
10/18/2016	8.74	
1/30/2017		
1/31/2017	7.89	
5/2/2017	5.81	
6/6/2017	4.72	
6/7/2017		
9/12/2017	4.39	
9/13/2017		
5/1/2018	4.66	
5/2/2018		
11/26/2018	3.41	
11/27/2018		
5/28/2019	10	
5/29/2019		
10/2/2019	4.94	
3/30/2020	7.56	
3/31/2020		0.663

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-8	BY-GSA-MW-7	BY-GSA-MW-5	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)
2/23/2016	0.03 (J)	0.05 (J)	0.05 (J)	0.02 (J)	0.02 (J)	0.02 (J)	0.02 (J)	0.02 (J)	0.02 (J)
4/18/2016				0.019 (J)	0.018 (J)	0.04 (J)			
4/19/2016	0.023 (J)	0.05 (J)	0.039 (J)				0.015 (J)	0.016 (J)	0.021 (J)
6/6/2016	0.062 (J)				0.051 (J)		0.05 (J)		
6/7/2016		0.098 (J)	0.085 (J)	0.053 (J)		0.066 (J)		0.052 (J)	0.06 (J)
8/30/2016	0.053 (J)	0.089 (J)	0.078 (J)	0.038 (J)	0.039 (J)	0.046 (J)	0.036 (J)	0.038 (J)	0.05 (J)
10/18/2016	0.042 (J)	0.092 (J)	0.071 (J)	0.028 (J)	0.025 (J)	0.034 (J)	0.025 (J)	0.03 (J)	0.04 (J)
3/20/2017	<0.1						<0.1	<0.1	<0.1
3/21/2017		0.06 (J)	0.05 (J)	<0.1	<0.1	<0.1			
5/2/2017	0.04 (J)	0.07 (J)	0.06 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	0.04 (J)
6/6/2017	<0.1					<0.1	<0.1	<0.1	0.04 (J)
6/7/2017		0.07 (J)	0.07 (J)	<0.1	<0.1				
9/12/2017					<0.1		<0.1		
9/13/2017	0.04 (J)	0.08 (J)	0.08 (J)	<0.1		<0.1		<0.1	0.043 (J)
1/22/2018					<0.1				
1/23/2018	<0.1	0.08 (J)	0.07 (J)				<0.1	<0.1	0.04 (J)
1/24/2018				<0.1		<0.1			
5/1/2018		0.09 (J)	0.07 (J)		<0.1		<0.1	<0.1	0.04 (J)
5/2/2018	0.04 (J)			<0.1		<0.1			
11/26/2018		0.08 (J)	0.07 (J)				<0.1		
11/27/2018	<0.1			<0.1	<0.1	<0.1		<0.1	<0.1
5/28/2019				<0.1	<0.1	<0.1	<0.1		
5/29/2019	0.0502 (J)	<0.1	<0.1					<0.1	<0.1
10/2/2019	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3/30/2020				<0.1	<0.1	<0.1			
3/31/2020	<0.1	<0.1	<0.1				<0.1	<0.1	<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-PZ-11
2/23/2016	0.06 (J)	
4/18/2016	0.138 (J)	
4/19/2016		
6/6/2016	0.148 (J)	
6/7/2016		
8/30/2016	0.072 (J)	
10/18/2016	0.049 (J)	
3/20/2017		
3/21/2017	<0.1	
5/2/2017	<0.1	
6/6/2017	<0.1	
6/7/2017		
9/12/2017	<0.1	
9/13/2017		
1/22/2018	<0.1	
1/23/2018		
1/24/2018		
5/1/2018	<0.1	
5/2/2018		
11/26/2018	<0.1	
11/27/2018		
5/28/2019	0.0591 (J)	
5/29/2019		
10/2/2019	<0.1	
3/30/2020	<0.1	
3/31/2020		<0.1

Prediction Limit

Constituent: pH (pH) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-8	BY-GSA-MW-7	BY-GSA-MW-5	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)
2/23/2016	4.62	4.67	4.56	4.92	5.12	4.76	4.74	4.96	4.79
4/18/2016				5.16	5.11	4.75			
4/19/2016	4.74	4.79	4.62				4.86	4.94	4.84
6/6/2016	4.65				5.14		4.88		
6/7/2016		4.73	4.64	5.11		4.77		4.96	4.81
8/30/2016	4.64	4.68	4.58	5.14	5.06	4.82	4.91	4.92	4.76
10/18/2016	4.74	4.75	4.58	5.09	5.01	4.82	4.95	4.98	4.84
1/30/2017		4.65	4.44		4.74				
1/31/2017	4.54			5.01		4.8	4.71	4.74	4.6
3/20/2017	4.67						4.83	4.9	4.71
3/21/2017		4.68	4.57	5.07	5.04	4.86			
5/2/2017	4.79	4.75	4.64	5.13	5.08	4.89	4.93	4.98	4.8
6/6/2017	4.76					4.86	4.9	4.94	4.72
6/7/2017		4.7	4.58	5.05	5.07				
9/12/2017					5.03		4.82		
9/13/2017	4.81	4.71	4.54	5.06		4.89		4.93	4.71
1/22/2018					5.06				
1/23/2018	4.79	4.6	4.53				4.85	4.91	4.67
1/24/2018				5.02		4.86			
5/1/2018		4.61	4.46		4.89		4.8	4.87	4.61
5/2/2018	4.62			4.99		4.87			
11/26/2018		4.65	4.5				4.88		
11/27/2018	4.73			5.06	5.05	4.92		4.94	4.72
5/28/2019				4.92	4.83	4.8	4.73		
5/29/2019	4.65	4.54	4.45					4.8	4.58
10/2/2019	4.57	4.6	4.49	4.86	5.04	4.44	4.67	4.52	4.43
3/30/2020				4.92	4.91	4.83			
3/31/2020	4.64	4.55	4.45				4.51	4.4	4.6

Prediction Limit

Constituent: pH (pH) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-PZ-11
2/23/2016	6.59	
4/18/2016	6.21	
4/19/2016		
6/6/2016	5.97	
6/7/2016		
8/30/2016	5.99	
10/18/2016	5.94	
1/30/2017		
1/31/2017	5.92	
3/20/2017		
3/21/2017	5.74	
5/2/2017	5.82	
6/6/2017	5.77	
6/7/2017		
9/12/2017	5.64	
9/13/2017		
1/22/2018	5.66	
1/23/2018		
1/24/2018		
5/1/2018	5.71	
5/2/2018		
11/26/2018	5.58	
11/27/2018		
5/28/2019	5.21	
5/29/2019		
10/2/2019	5.4	
3/30/2020	5.51	
3/31/2020		4.91

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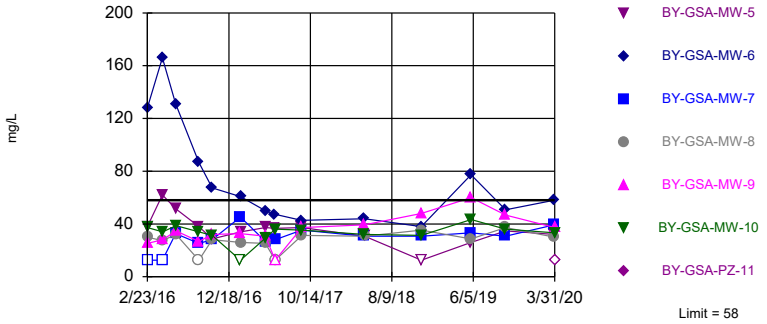
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 12.5% NDs. Annual per-constituent alpha = 0.008468. Individual comparison alpha = 0.0006072 (1 of 2). Comparing 7 points to limit.

Constituent: TDS Analysis Run 7/23/2020 4:28 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-9	BY-GSA-MW-8	BY-GSA-MW-7	BY-GSA-MW-5	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)
2/23/2016	26.7	37.3	25.3	30	<25	38	<25	40	30.7
4/18/2016				27.3	<25	62			
4/19/2016	<25	34	28				<25	32	<25
6/6/2016	32.7				32.7		28.7		
6/7/2016		38.7	34.7	32		51.3		38.7	35.3
8/30/2016	33.3	34	26.7	<25	25.3	38	25.3	31.3	27.3
10/18/2016	27.3	31.3	32	28	28	28.7	<25	26.7	<25
1/30/2017		<25	32.7		45.3				
1/31/2017	32			26		34	26	30	32.7
5/2/2017	31.3	29.3	30.7	25.3	26.7	37.3	<25	30.7	30.7
6/6/2017	35.3					36.7	42.7	32.7	34.7
6/7/2017		36	<25	<25	28				
9/12/2017					35.3		26.7		
9/13/2017	36.7	35.3	37.3	31.3		37.3		38	39.3
5/1/2018		32	39.3		30.7		34.7	35.3	42
5/2/2018	34			30.7		30.7			
11/26/2018		31.3	48				32.7		
11/27/2018	50.7			35.3	30.7	<25		36	31.3
5/28/2019				28.7	33.3	26	31.3		
5/29/2019	58	43.3	60					37.3	40
10/2/2019	46	36	46.7	37.3	30.7	34.7	36	36.7	41.3
3/30/2020				30	39.3	32			
3/31/2020	53.3	33.3	37.3				36.7	39.3	40

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/23/2020 4:29 PM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-PZ-11
2/23/2016	128	
4/18/2016	166	
4/19/2016		
6/6/2016	131	
6/7/2016		
8/30/2016	86.7	
10/18/2016	67.3	
1/30/2017		
1/31/2017	60.7	
5/2/2017	50	
6/6/2017	47.3	
6/7/2017		
9/12/2017	42.7	
9/13/2017		
5/1/2018	44	
5/2/2018		
11/26/2018	38	
11/27/2018		
5/28/2019	77.3	
5/29/2019		
10/2/2019	50.7	
3/30/2020	58	
3/31/2020		<25

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/23/2020, 4:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	**BY-GSA-MW-7**	**9.716**	**n/a**	**3/30/2020**	**10.5**	**Yes**	**12**	**0**	**ln(x)**	**0.001254**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-GSA-MW-1**	**23.3**	**n/a**	**3/31/2020**	**24.3**	**Yes**	**12**	**0**	**n/a**	**0.01077**	**NP Intra (normality) ...**
Sulfate (mg/L)	**BY-GSA-MW-4**	**8.365**	**n/a**	**3/31/2020**	**10.8**	**Yes**	**12**	**0**	**No**	**0.001254**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-GSA-MW-9**	**11.87**	**n/a**	**3/31/2020**	**12.5**	**Yes**	**12**	**0**	**sqrt(x)**	**0.001254**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/23/2020, 4:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	BY-GSA-MW-1	9.822	n/a	3/31/2020	3.17	No	12	8.333	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-2	5.401	n/a	3/31/2020	2.72	No	12	8.333	x^2	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-3	4.671	n/a	3/31/2020	3.47	No	12	8.333	x^3	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-4	4.615	n/a	3/31/2020	3.34	No	12	0	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-5	4.818	n/a	3/30/2020	3.45	No	12	8.333	x^2	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-6	7.317	n/a	3/30/2020	4.95	No	12	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	**BY-GSA-MW-7**	**9.716**	**n/a**	**3/30/2020**	**10.5**	**Yes**	**12**	**0**	**ln(x)**	**0.001254**	**Param Intra 1 of 2**
Chloride (mg/L)	BY-GSA-MW-8	5.7	n/a	3/30/2020	4.38	No	12	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-9	11.01	n/a	3/31/2020	6.87	No	12	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-10	5.293	n/a	3/31/2020	3.89	No	12	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	**BY-GSA-MW-1**	**23.3**	**n/a**	**3/31/2020**	**24.3**	**Yes**	**12**	**0**	**n/a**	**0.01077**	**NP Intra (normality) ...**
Sulfate (mg/L)	BY-GSA-MW-2	9.825	n/a	3/31/2020	6.83	No	12	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.12	n/a	3/31/2020	7.98	No	12	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	**BY-GSA-MW-4**	**8.365**	**n/a**	**3/31/2020**	**10.8**	**Yes**	**12**	**0**	**No**	**0.001254**	**Param Intra 1 of 2**
Sulfate (mg/L)	BY-GSA-MW-5	28.75	n/a	3/30/2020	6.34	No	12	0	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	45.34	n/a	3/30/2020	21.8	No	11	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.264	n/a	3/30/2020	4.29	No	12	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.191	n/a	3/30/2020	4.84	No	12	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	**BY-GSA-MW-9**	**11.87**	**n/a**	**3/31/2020**	**12.5**	**Yes**	**12**	**0**	**sqrt(x)**	**0.001254**	**Param Intra 1 of 2**
Sulfate (mg/L)	BY-GSA-MW-10	12.55	n/a	3/31/2020	11.1	No	12	0	No	0.001254	Param Intra 1 of 2

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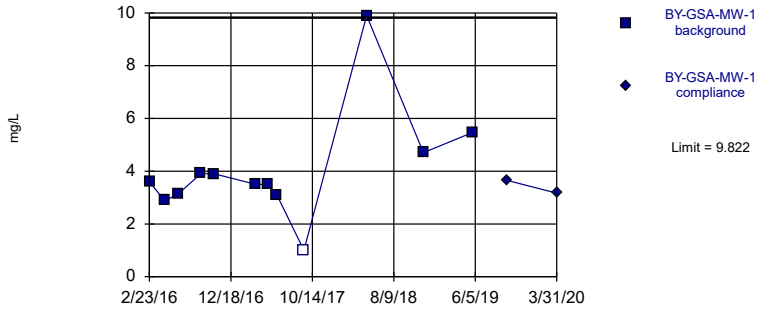
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.956, Std. Dev.=0.4939, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8699, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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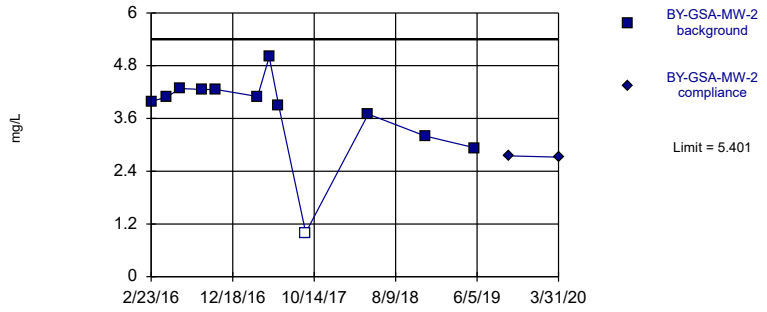
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=14.81, Std. Dev.=6.021, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9156, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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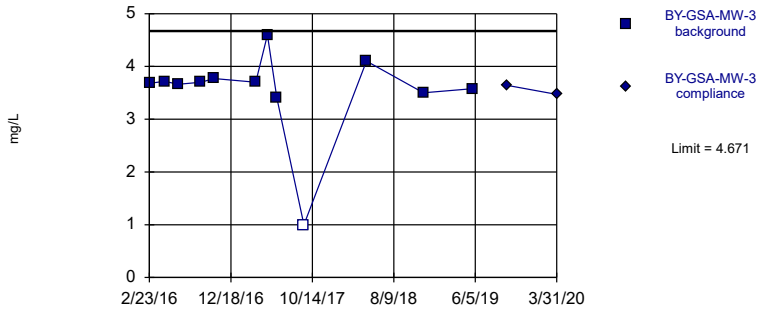
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=50.05, Std. Dev.=21.74, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8422, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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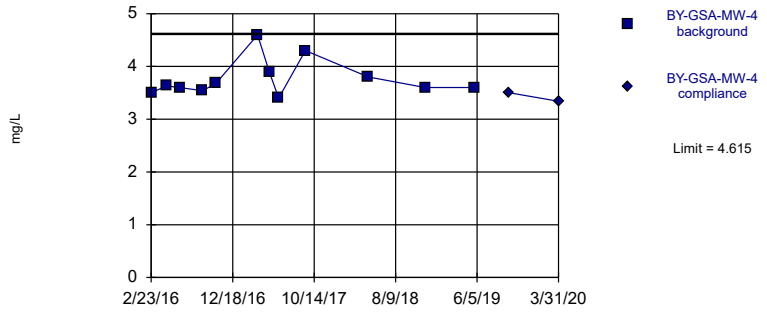
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.938, Std. Dev.=0.08822, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8171, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride Analysis Run 7/23/2020 4:32 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1	BY-GSA-MW-1	BY-GSA-MW-2	BY-GSA-MW-2	BY-GSA-MW-3	BY-GSA-MW-3	BY-GSA-MW-4	BY-GSA-MW-4
2/23/2016	3.59		3.99		3.68		3.5	
4/19/2016	2.89		4.08		3.72		3.63	
6/6/2016	3.12						3.6	
6/7/2016			4.28		3.66			
8/30/2016	3.91		4.26		3.7		3.54	
10/18/2016	3.9		4.26		3.77		3.68	
3/20/2017	3.5		4.1		3.7		4.6	
5/2/2017	3.5		5		4.6		3.9	
6/6/2017	3.1		3.9		3.4		3.4	
9/12/2017							4.3	
9/13/2017	<2 (U*)		<2 (U*)		<2 (U*)			
5/1/2018			3.7		4.1		3.8	
5/2/2018	9.9							
11/26/2018							3.6	
11/27/2018	4.7		3.2		3.5			
5/28/2019							3.6	
5/29/2019	5.48		2.93		3.58			
10/2/2019		3.65		2.75		3.64		3.5
3/31/2020		3.17		2.72		3.47		3.34

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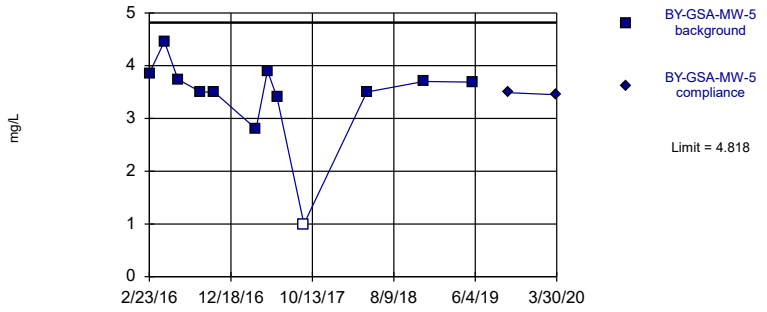
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=12.37, Std. Dev.=4.547, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8651, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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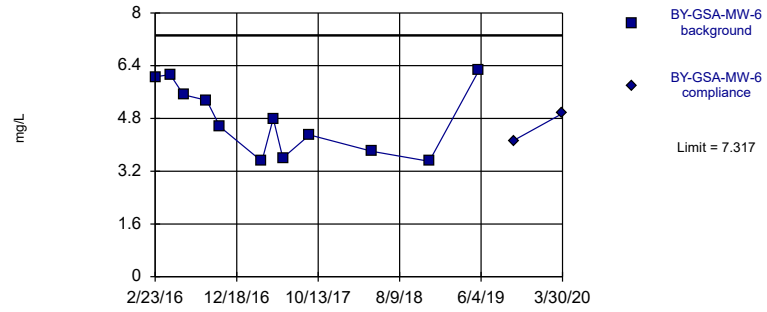
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.781, Std. Dev.=1.063, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.897, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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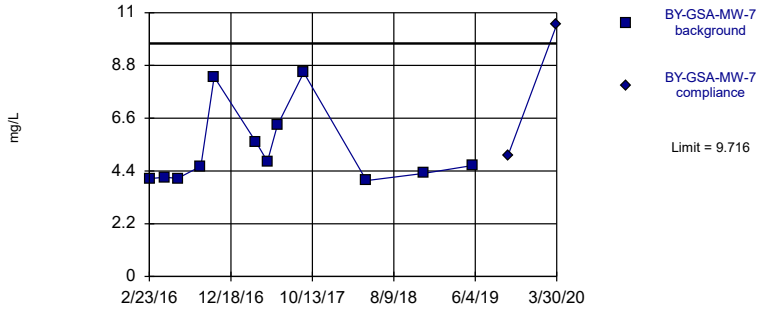
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=1.627, Std. Dev.=0.271, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8109, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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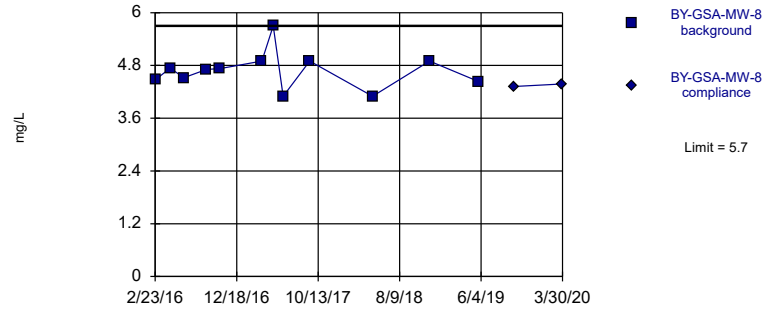
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.683, Std. Dev.=0.4261, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9008, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride Analysis Run 7/23/2020 4:32 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	3.86		6.06		4.08		4.47	
4/18/2016	4.46		6.13		4.14		4.74	
6/6/2016			5.52		4.09			
6/7/2016	3.74						4.52	
8/30/2016	3.5		5.35		4.6		4.71	
10/18/2016	3.5		4.55		8.32		4.73	
3/21/2017	2.8		3.5		5.6		4.9	
5/2/2017	3.9		4.8		4.8		5.7	
6/6/2017	3.4		3.6					
6/7/2017					6.3		4.1	
9/12/2017			4.3		8.5			
9/13/2017	<2 (U*)						4.9	
5/1/2018			3.8		4			
5/2/2018	3.5						4.1	
11/26/2018			3.5					
11/27/2018	3.7				4.3		4.9	
5/28/2019	3.69		6.26		4.63		4.43	
10/2/2019		3.49		4.13		5.02		4.32
3/30/2020		3.45		4.95		10.5		4.38

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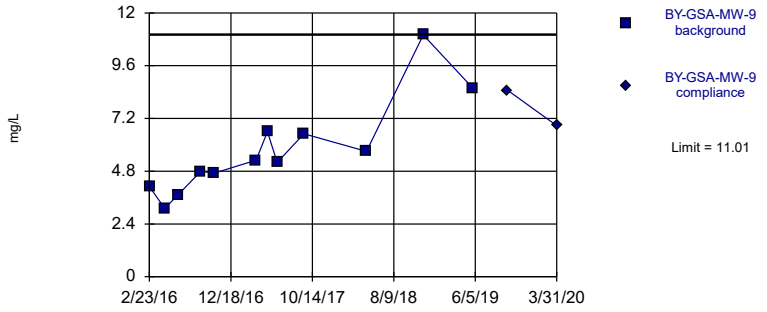
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.775, Std. Dev.=2.196, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8939, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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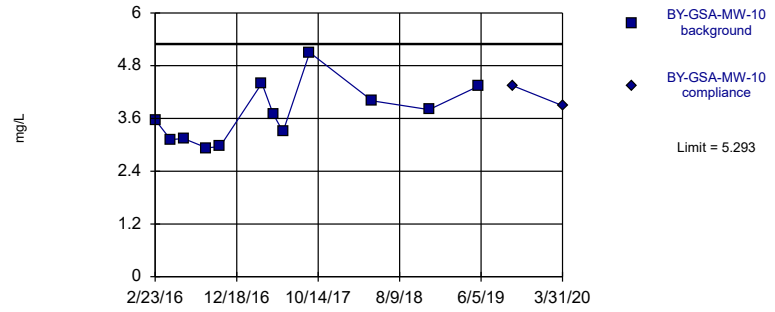
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.697, Std. Dev.=0.6693, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9292, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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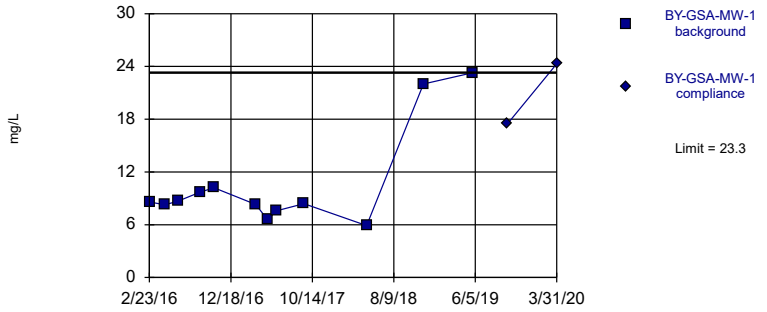
Exceeds Limit

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 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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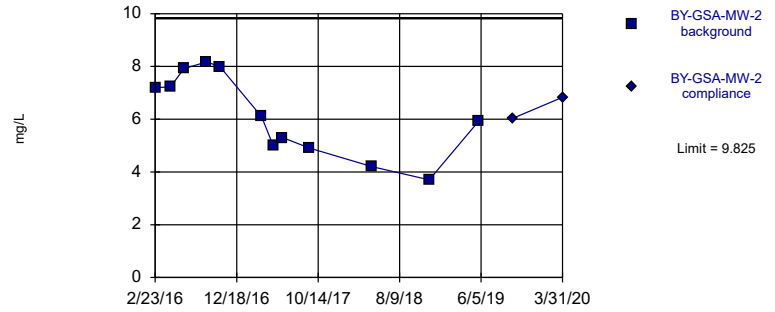
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.137, Std. Dev.=1.546, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9309, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride, Sulfate Analysis Run 7/23/2020 4:32 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9	BY-GSA-MW-10	BY-GSA-MW-10	BY-GSA-MW-1	BY-GSA-MW-1	BY-GSA-MW-2	BY-GSA-MW-2
2/23/2016	4.1		3.57		8.59		7.2	
4/19/2016	3.11		3.12		8.27		7.22	
6/6/2016					8.66			
6/7/2016	3.72		3.14				7.92	
8/30/2016	4.8		2.93		9.74		8.17	
10/18/2016	4.71		2.96		10.2		7.99	
3/20/2017					8.3		6.1	
3/21/2017	5.3		4.4					
5/2/2017	6.6		3.7		6.6		5	
6/6/2017					7.6		5.3	
6/7/2017	5.2		3.3					
9/13/2017	6.5		5.1		8.4		4.9 (J)	
5/1/2018	5.7		4				4.2 (J)	
5/2/2018					5.9			
11/26/2018	11		3.8					
11/27/2018					22		3.7 (J)	
5/29/2019	8.56		4.34		23.3		5.94	
10/2/2019		8.48		4.34		17.5		6.04
3/31/2020		6.87		3.89		24.3		6.83

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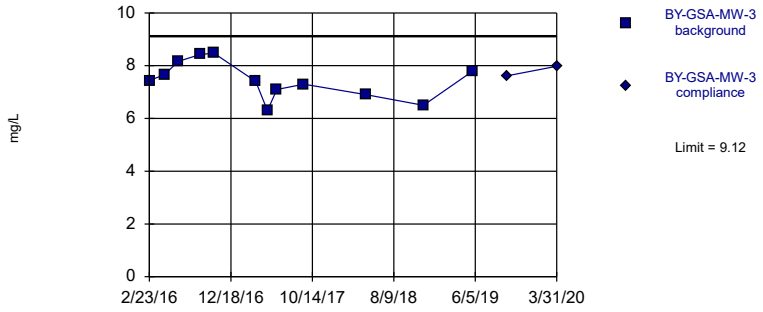
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.456, Std. Dev.=0.6976, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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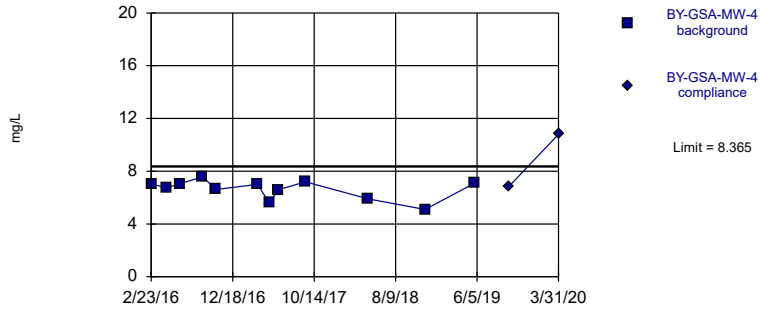
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.626, Std. Dev.=0.7293, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8904, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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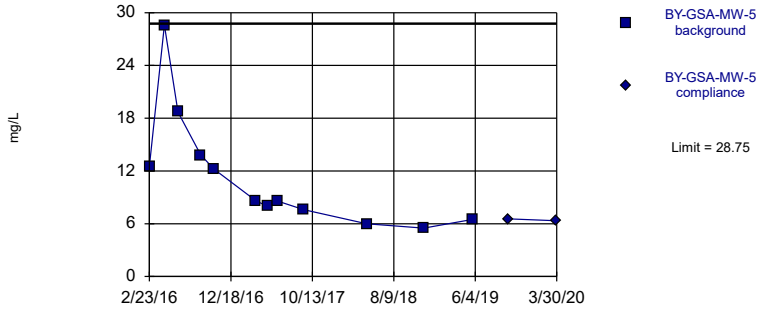
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=3.268, Std. Dev.=0.8781, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.876, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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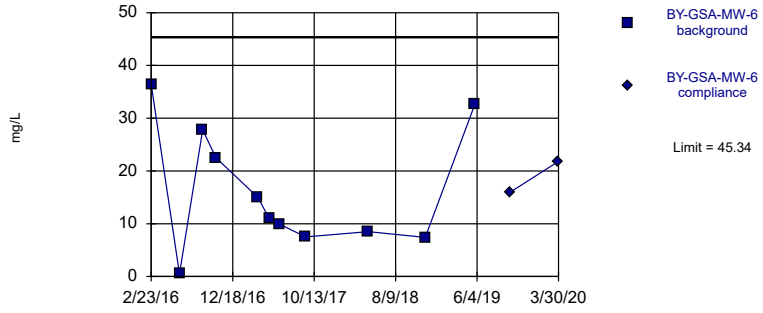
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.31, Std. Dev.=11.77, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9097, critical = 0.792. Kappa = 2.467 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Sulfate Analysis Run 7/23/2020 4:33 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-3	BY-GSA-MW-3	BY-GSA-MW-4	BY-GSA-MW-4	BY-GSA-MW-5	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	7.44		7.04		12.5		36.5	
4/18/2016					28.6			
4/19/2016	7.66		6.74					
6/6/2016			7.04				0.498 (J)	
6/7/2016	8.16				18.7			
8/30/2016	8.43		7.57		13.8		27.8	
10/18/2016	8.47		6.62		12.2		22.5	
3/20/2017	7.4		7					
3/21/2017					8.6		15	
5/2/2017	6.3		5.6		8		11	
6/6/2017	7.1		6.6		8.6		10	
9/12/2017			7.2				7.5	
9/13/2017	7.3				7.6			
5/1/2018	6.9		5.9				8.5	
5/2/2018					6			
11/26/2018			5.1				7.4	
11/27/2018	6.5				5.5			
5/28/2019			7.1		6.5		32.7	
5/29/2019	7.81							
10/2/2019		7.62		6.88		6.55		15.9
3/30/2020						6.34		21.8
3/31/2020		7.98		10.8				

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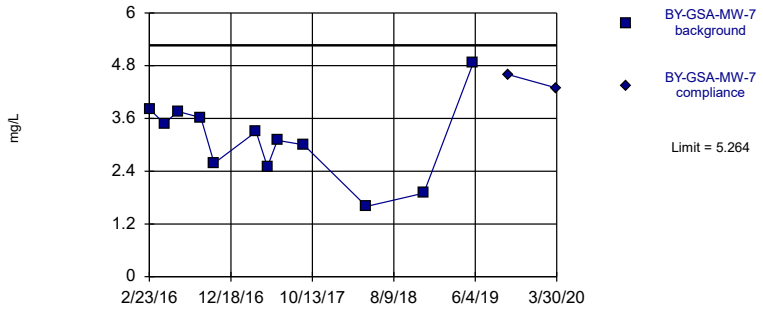
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.127, Std. Dev.=0.8959, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9752, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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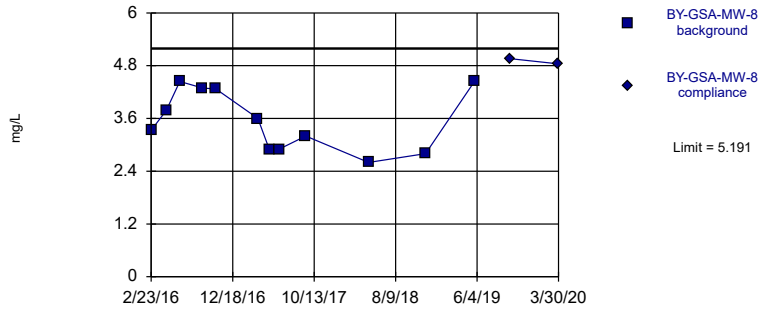
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.548, Std. Dev.=0.689, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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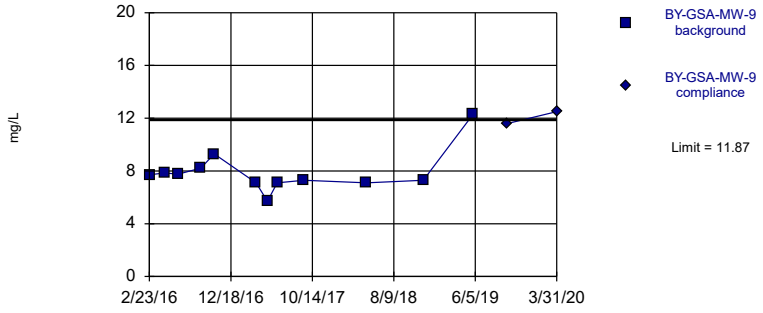
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.798, Std. Dev.=0.2716, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8285, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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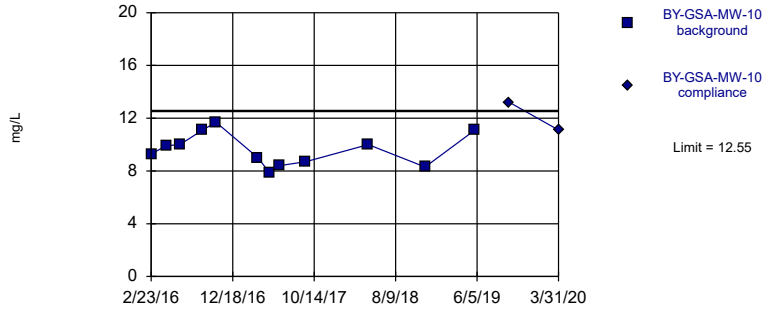
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.618, Std. Dev.=1.229, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9451, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/23/2020 4:31 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Sulfate Analysis Run 7/23/2020 4:33 PM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-9	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	3.82		3.33		7.71		9.29	
4/18/2016	3.48		3.78					
4/19/2016					7.85		9.92	
6/6/2016	3.76							
6/7/2016			4.44		7.76		10	
8/30/2016	3.62		4.29		8.22		11.1	
10/18/2016	2.58		4.27		9.29		11.7	
3/21/2017	3.3 (J)		3.6 (J)		7.1		9	
5/2/2017	2.5 (J)		2.9 (J)		5.7		7.9	
6/7/2017	3.1 (J)		2.9 (J)		7.1		8.4	
9/12/2017	3 (J)							
9/13/2017			3.2 (J)		7.3		8.7	
5/1/2018	1.6 (J)				7.1		10	
5/2/2018			2.6 (J)					
11/26/2018					7.3		8.3	
11/27/2018	1.9 (J)		2.8 (J)					
5/28/2019	4.86		4.46					
5/29/2019					12.3		11.1	
10/2/2019		4.6		4.96		11.6		13.2
3/30/2020		4.29		4.84				
3/31/2020						12.5		11.1

Trend Test - All Results

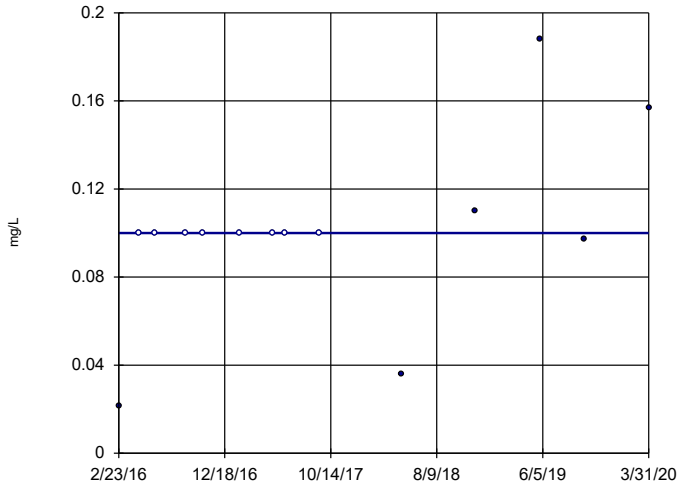
Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/23/2020, 4:35 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-1 (bg)	0	25	48	No	14	57.14	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-2 (bg)	0	14	48	No	14	78.57	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-3 (bg)	0	0	48	No	14	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-4 (bg)	0	17	48	No	14	85.71	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	-0.1253	-31	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-1 (bg)	0.1671	26	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-2 (bg)**	**0.155**	**55**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-GSA-MW-3 (bg)	0.04214	30	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-4 (bg)**	**0.1034**	**51**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-GSA-MW-6**	**-3.342**	**-51**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-GSA-MW-1 (bg)	0.07087	12	48	No	14	7.143	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-GSA-MW-2 (bg)**	**-0.3817**	**-50**	**-48**	**Yes**	**14**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-GSA-MW-3 (bg)	-0.04398	-22	-48	No	14	7.143	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-4 (bg)	-0.03009	-13	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-7	0.5214	33	48	No	14	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-1 (bg)	0	-1	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	**BY-GSA-MW-2 (bg)**	**-0.06907**	**-72**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-3 (bg)**	**-0.05433**	**-59**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	BY-GSA-MW-4 (bg)	-0.04247	-41	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	**BY-GSA-MW-6**	**-0.2226**	**-102**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-9**	**-0.03825**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	BY-GSA-MW-1 (bg)	2.672	27	48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-2 (bg)	-0.7852	-33	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-3 (bg)	-0.1255	-11	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-4 (bg)	-0.03734	-4	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-9	0.7814	19	48	No	14	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 0
units per year.

Mann-Kendall
statistic = 25
critical = 48

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

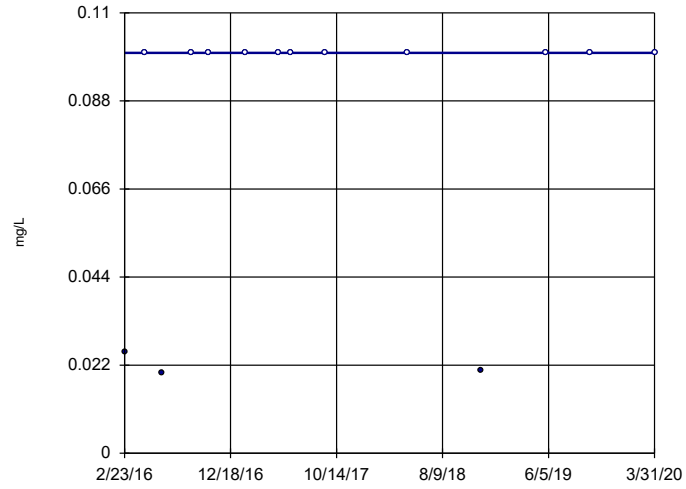
Constituent: Boron Analysis Run 7/23/2020 4:34 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = 0
units per year.

Mann-Kendall
statistic = 14
critical = 48

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

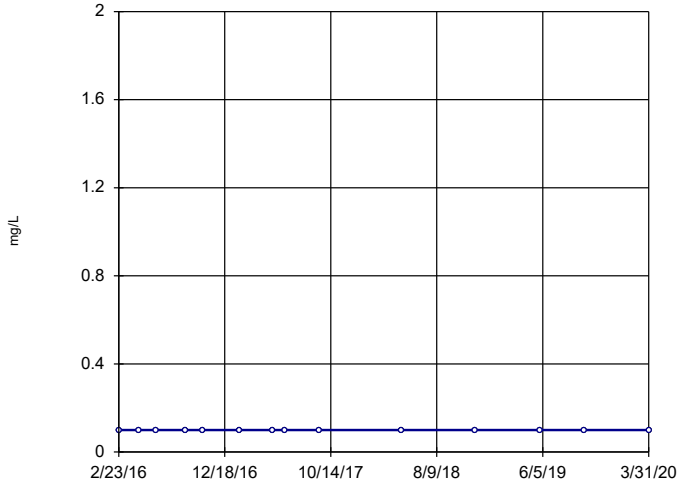
Constituent: Boron Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = 0
units per year.

Mann-Kendall
statistic = 0
critical = 48

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

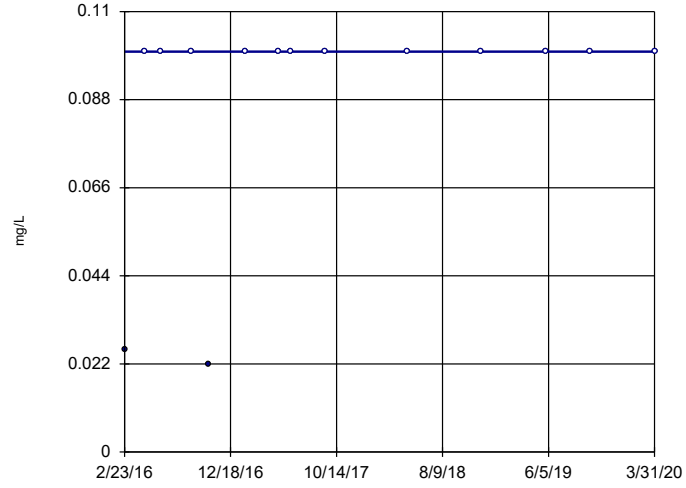
Constituent: Boron Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = 0
units per year.

Mann-Kendall
statistic = 17
critical = 48

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

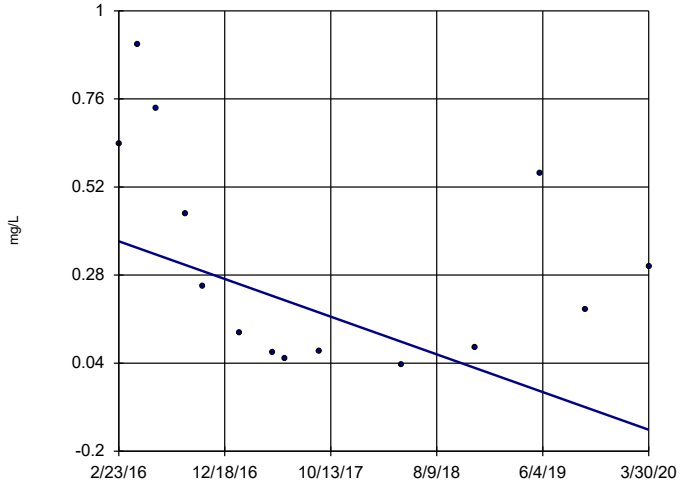
Constituent: Boron Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 14

Slope = -0.1253 units per year.

Mann-Kendall statistic = -31 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

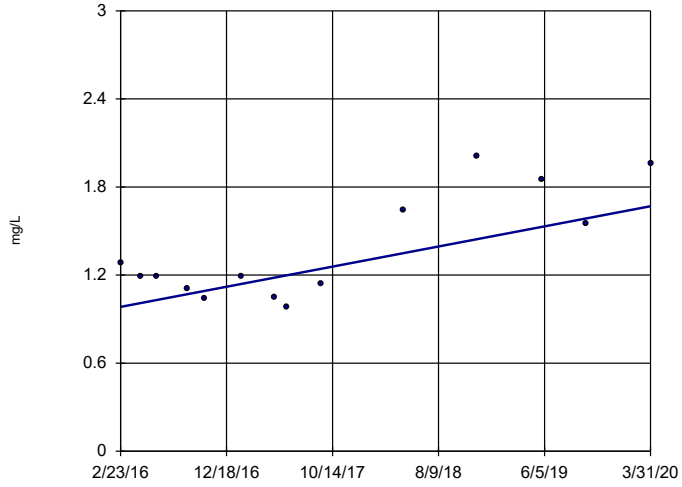
Constituent: Boron Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 0.1671 units per year.

Mann-Kendall statistic = 26 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

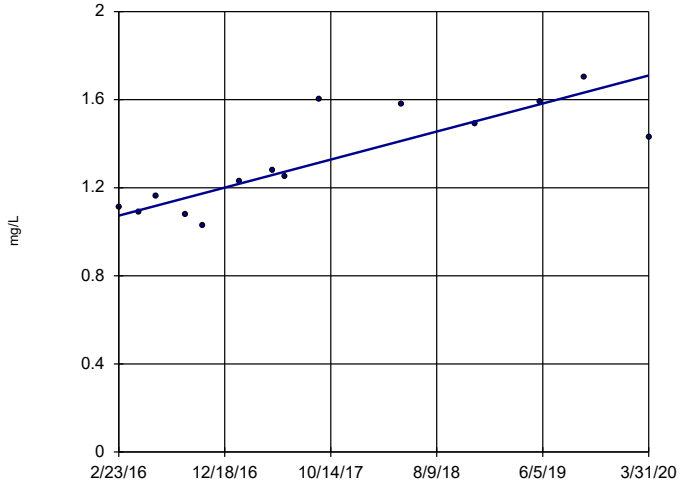
Constituent: Calcium Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = 0.155 units per year.

Mann-Kendall statistic = 55 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

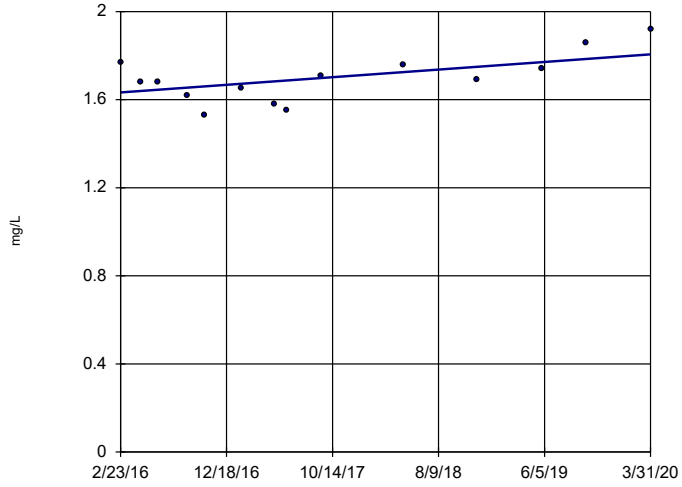
Constituent: Calcium Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = 0.04214 units per year.

Mann-Kendall statistic = 30 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

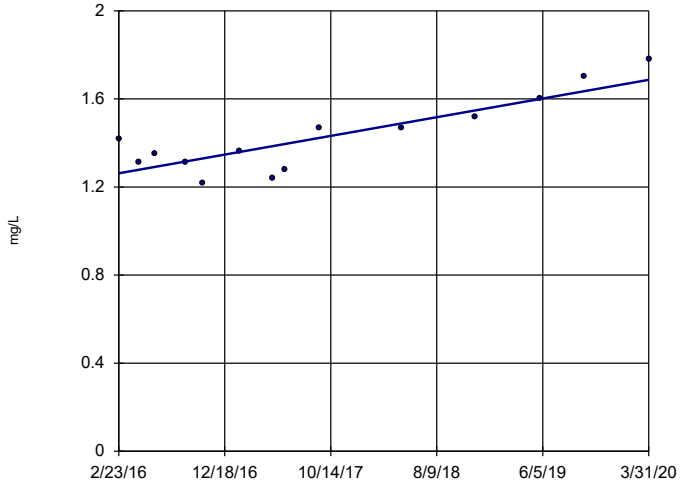
Constituent: Calcium Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = 0.1034 units per year.

Mann-Kendall statistic = 51 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

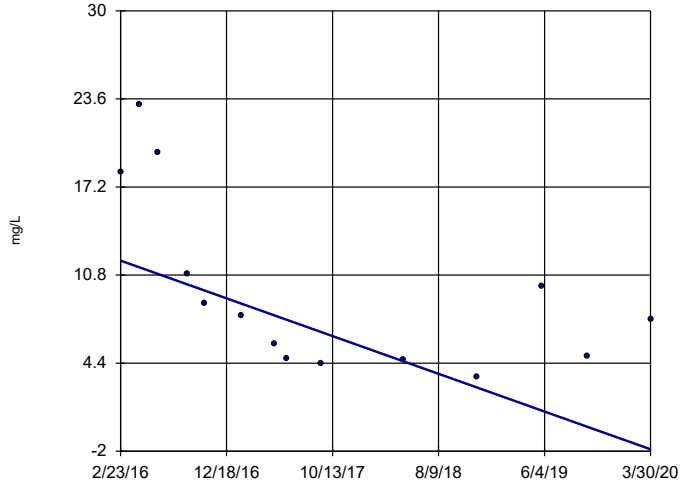
Constituent: Calcium Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 14

Slope = -3.342 units per year.

Mann-Kendall statistic = -51 critical = -48

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

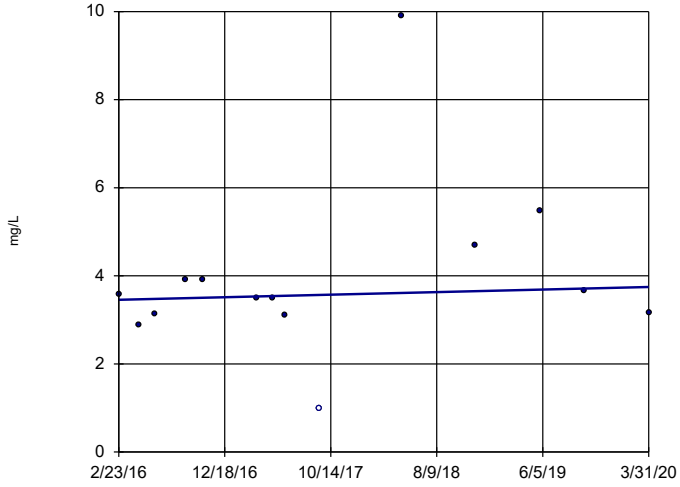
Constituent: Calcium Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 0.07087 units per year.

Mann-Kendall statistic = 12 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

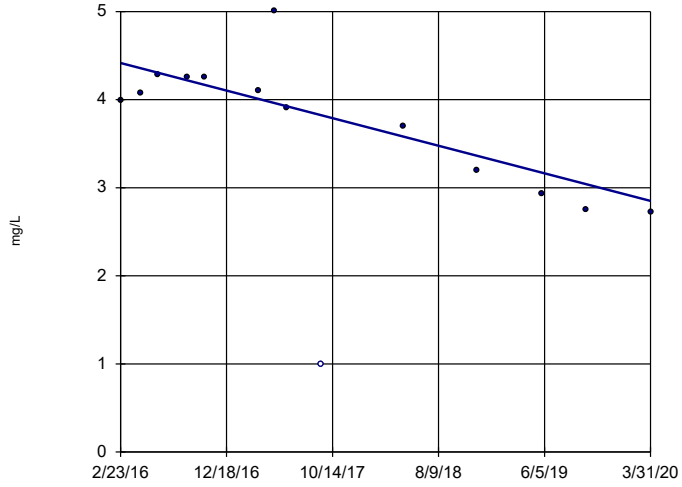
Constituent: Chloride Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = -0.3817 units per year.

Mann-Kendall statistic = -50 critical = -48

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 7/23/2020 4:35 PM View: Trend Tests

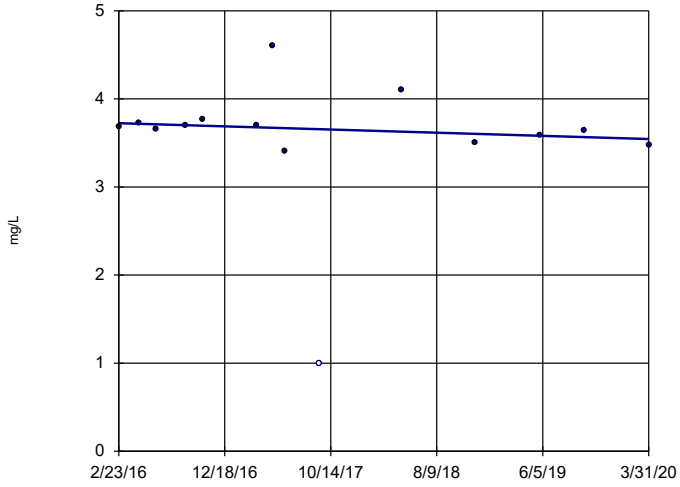
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = -0.04398 units per year.

Mann-Kendall statistic = -22 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

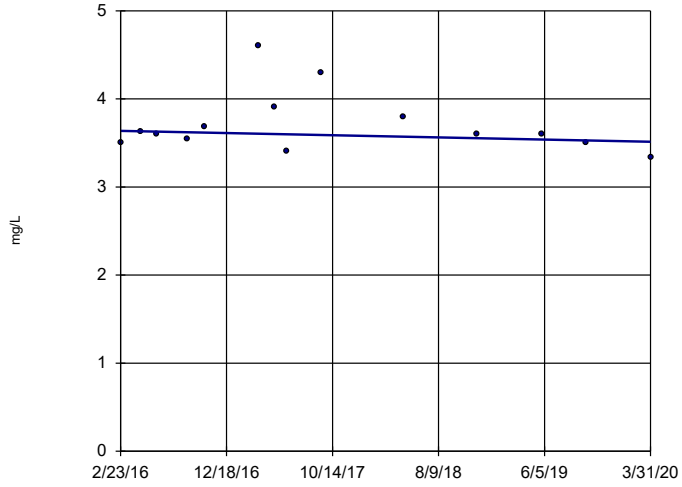
Constituent: Chloride Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = -0.03009 units per year.

Mann-Kendall statistic = -13 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

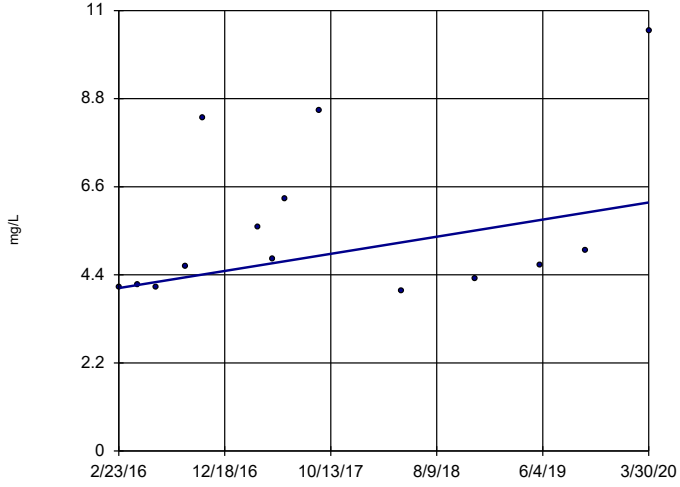
Constituent: Chloride Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-7



n = 14

Slope = 0.5214 units per year.

Mann-Kendall statistic = 33 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

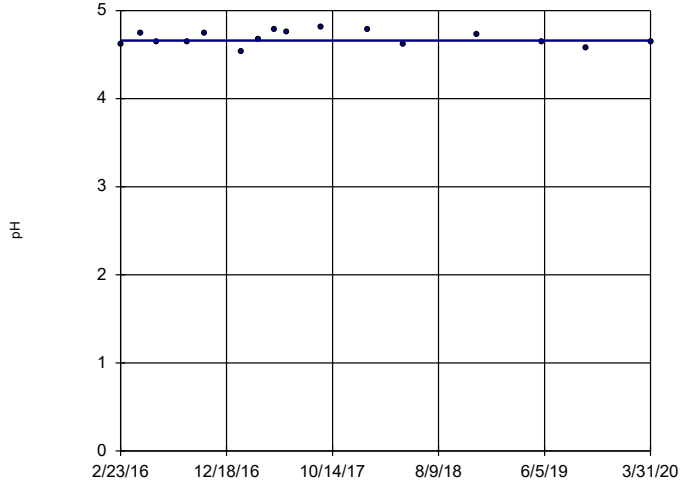
Constituent: Chloride Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = -1 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

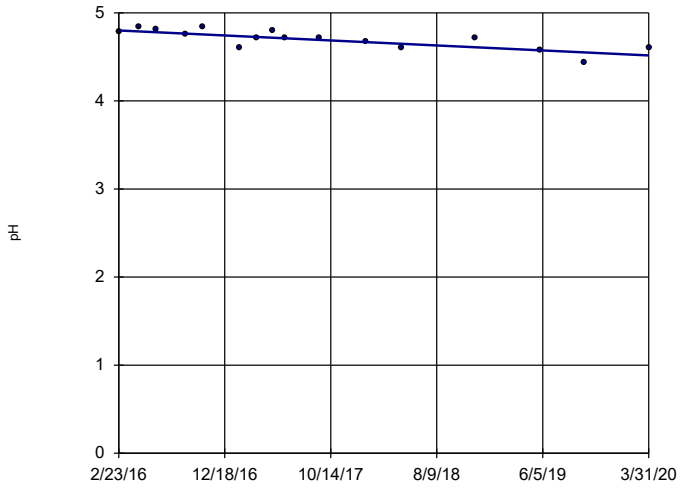
Constituent: pH Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 16

Slope = -0.06907 units per year.

Mann-Kendall statistic = -72 critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

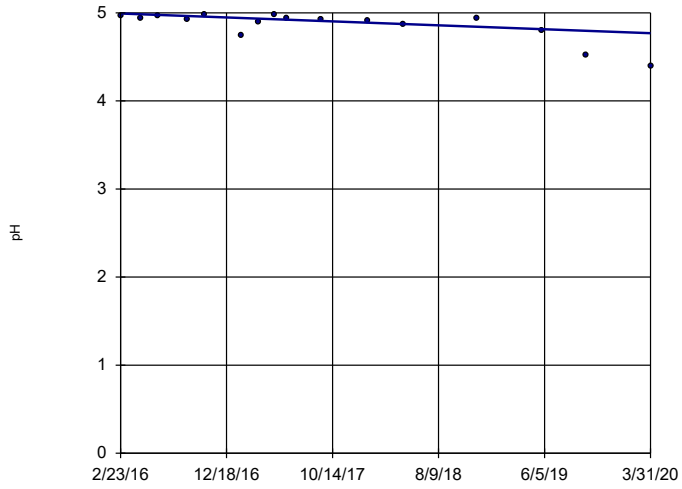
Constituent: pH Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 16

Slope = -0.05433 units per year.

Mann-Kendall statistic = -59 critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

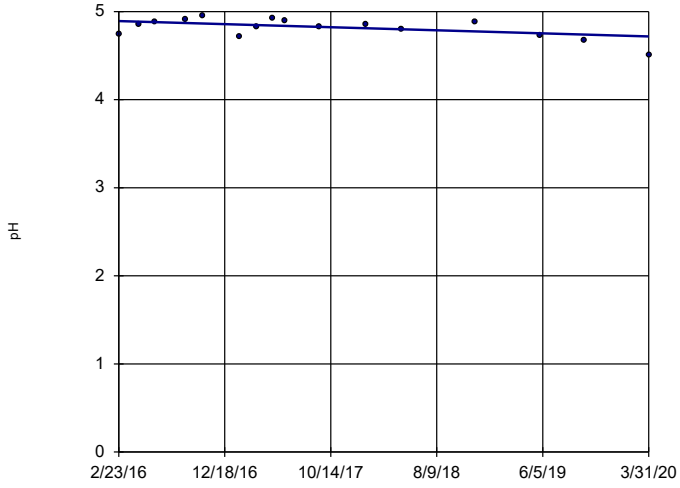
Constituent: pH Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 16

Slope = -0.04247 units per year.

Mann-Kendall statistic = -41 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

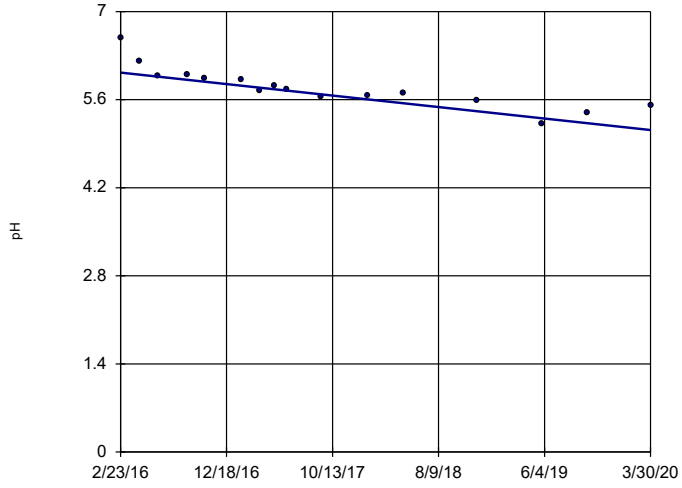
Constituent: pH Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 16

Slope = -0.2226 units per year.

Mann-Kendall statistic = -102 critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

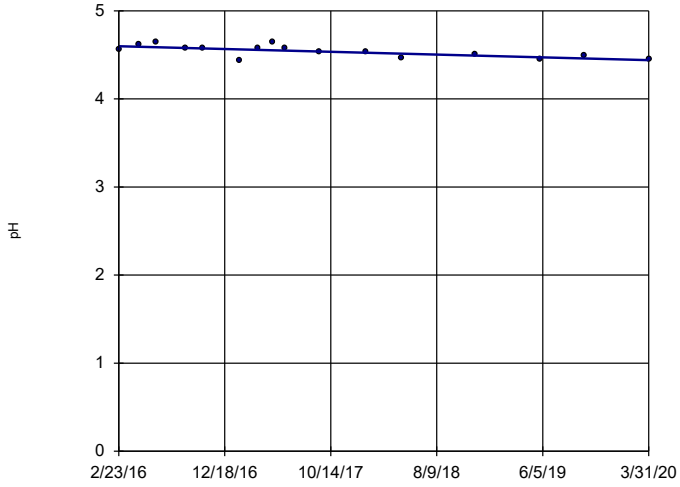
Constituent: pH Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-9



n = 16

Slope = -0.03825 units per year.

Mann-Kendall statistic = -63 critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

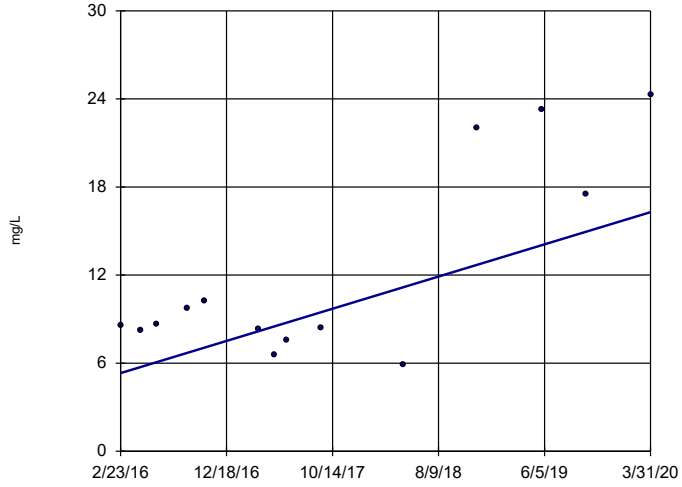
Constituent: pH Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 2.672 units per year.

Mann-Kendall statistic = 27 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

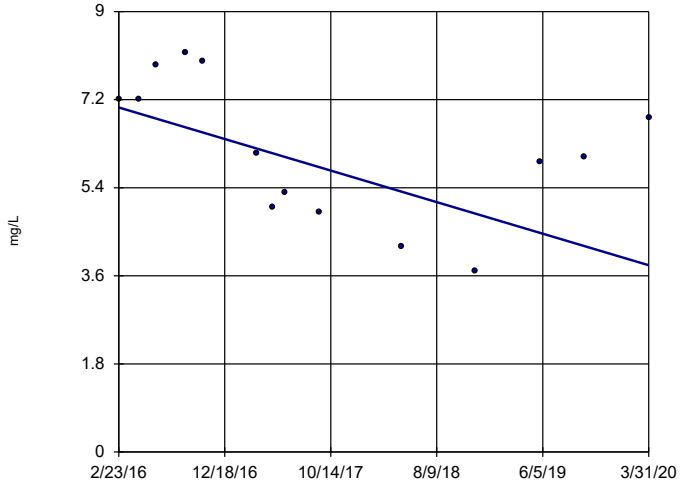
Constituent: Sulfate Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = -0.7852 units per year.

Mann-Kendall statistic = -33 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

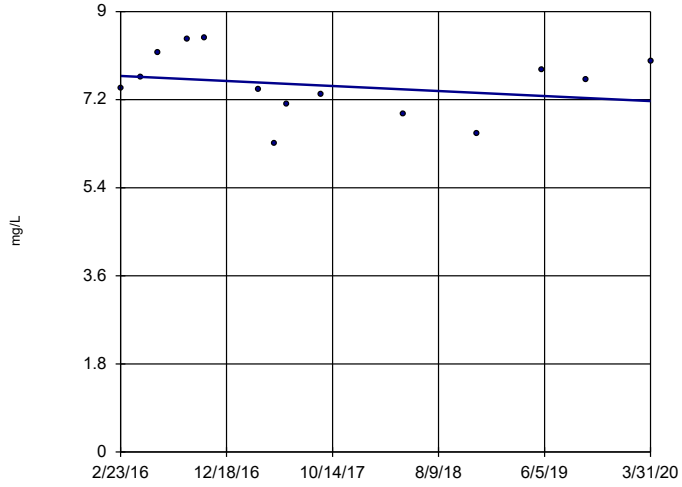
Constituent: Sulfate Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = -0.1255 units per year.

Mann-Kendall statistic = -11 critical = -48

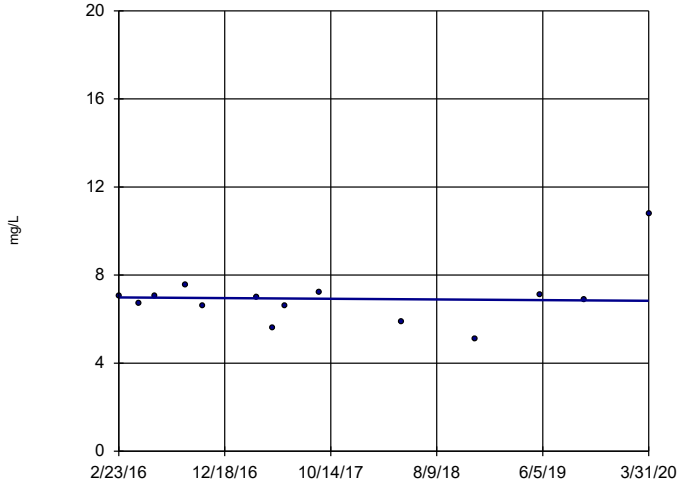
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = -0.03734 units per year.

Mann-Kendall statistic = -4 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

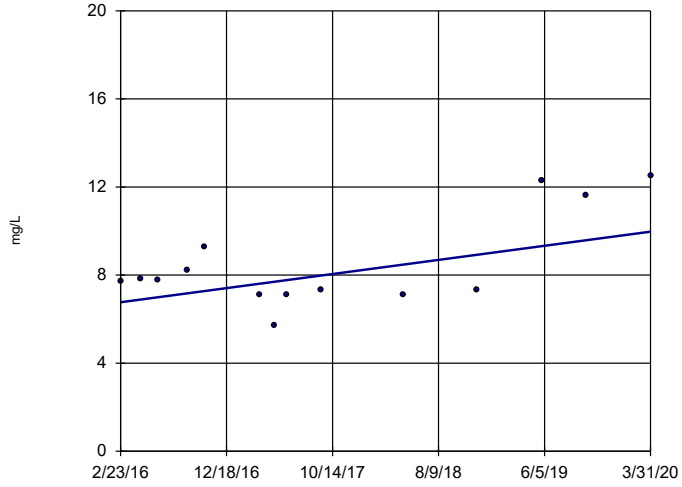
Constituent: Sulfate Analysis Run 7/23/2020 4:35 PM View: Trend Tests

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-9



n = 14

Slope = 0.7814 units per year.

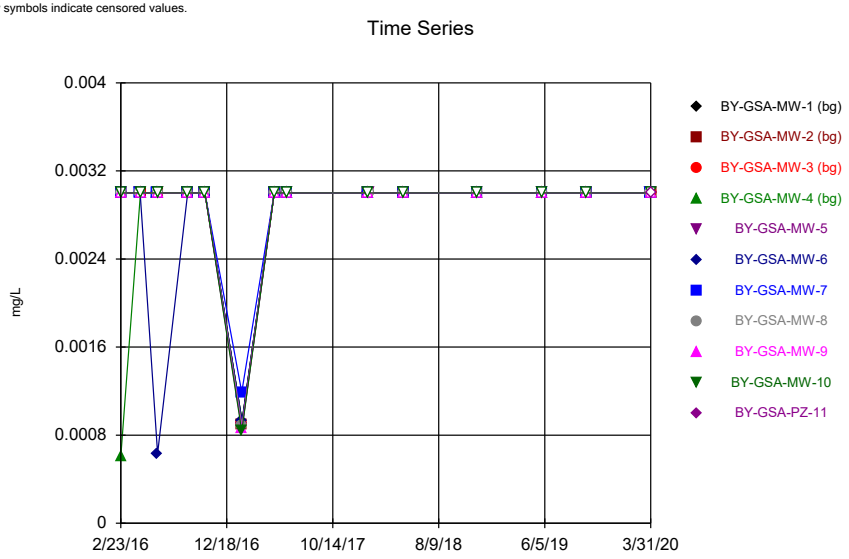
Mann-Kendall statistic = 19 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 7/23/2020 4:35 PM View: Trend Tests

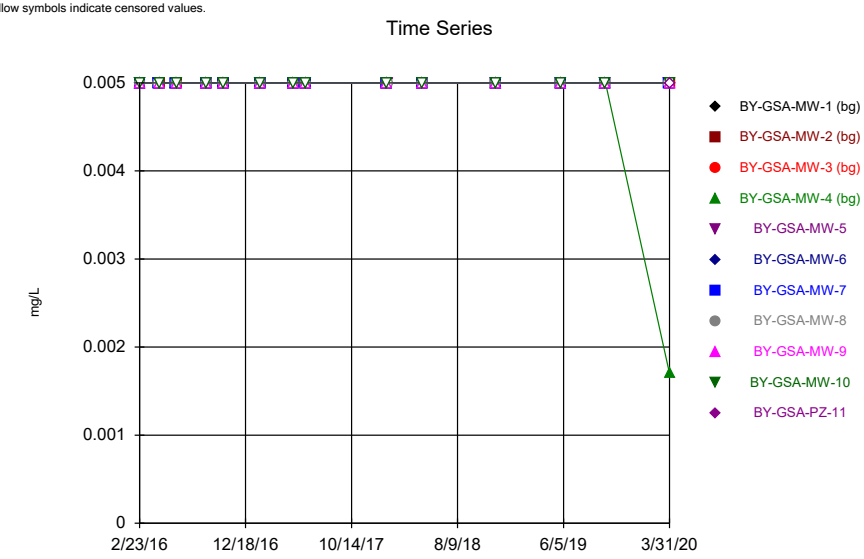
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



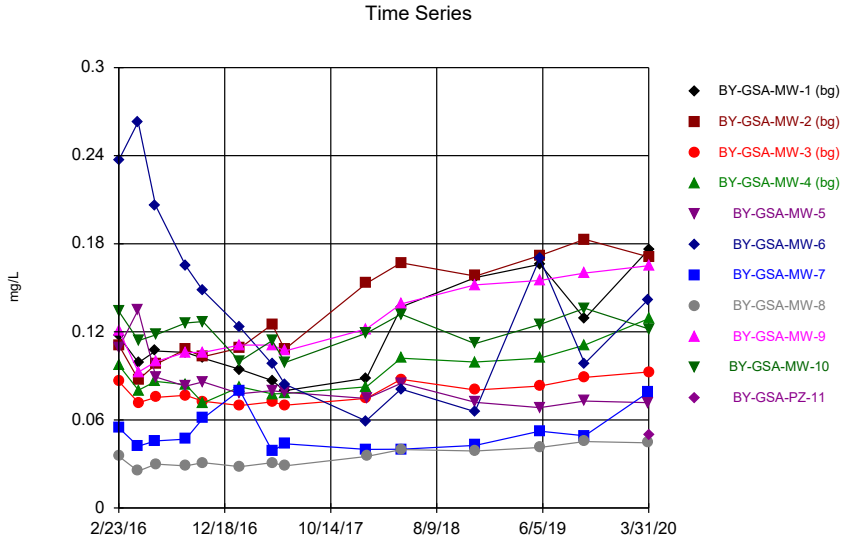
Constituent: Antimony Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



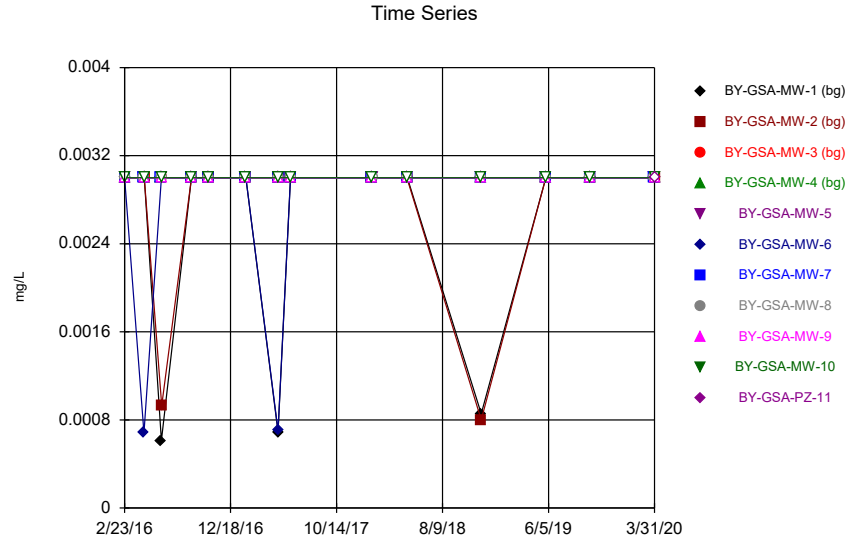
Constituent: Arsenic Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



Constituent: Barium Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



Constituent: Beryllium Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.003	<0.003	<0.003	0.000606 (J)	<0.003	<0.003	<0.003	<0.003	<0.003
4/18/2016					<0.003	<0.003	<0.003	<0.003	
4/19/2016	<0.003	<0.003	<0.003	<0.003					<0.003
6/6/2016	<0.003			<0.003		0.000633 (J)	<0.003		
6/7/2016		<0.003	<0.003		<0.003			<0.003	<0.003
8/30/2016	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
10/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/30/2017							0.00119 (J)		0.000859 (J)
1/31/2017	0.000925 (J)	0.000898 (J)	0.000911 (J)	0.000928 (J)	0.000866 (J)	0.000926 (J)		0.000885 (J)	
5/2/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/7/2017							<0.003	<0.003	<0.003
1/22/2018						<0.003	<0.003		
1/23/2018	<0.003	<0.003	<0.003	<0.003					<0.003
1/24/2018					<0.003			<0.003	
5/1/2018		<0.003	<0.003	<0.003		<0.003	<0.003		<0.003
5/2/2018	<0.003				<0.003			<0.003	
11/26/2018				<0.003		<0.003			<0.003
11/27/2018	<0.003	<0.003	<0.003		<0.003		<0.003	<0.003	
5/28/2019				<0.003	<0.003	<0.003	<0.003	<0.003	
5/29/2019	<0.003	<0.003	<0.003						<0.003
10/2/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/30/2020					<0.003	<0.003	<0.003	<0.003	
3/31/2020	<0.003	<0.003	<0.003	<0.003					<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.003	
4/18/2016		
4/19/2016	<0.003	
6/6/2016		
6/7/2016	<0.003	
8/30/2016	<0.003	
10/18/2016	<0.003	
1/30/2017	0.000838 (J)	
1/31/2017		
5/2/2017	<0.003	
6/6/2017		
6/7/2017	<0.003	
1/22/2018		
1/23/2018	<0.003	
1/24/2018		
5/1/2018	<0.003	
5/2/2018		
11/26/2018	<0.003	
11/27/2018		
5/28/2019		
5/29/2019	<0.003	
10/2/2019	<0.003	
3/30/2020		
3/31/2020	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2016					<0.005	<0.005	<0.005	<0.005	
4/19/2016	<0.005	<0.005	<0.005	<0.005					<0.005
6/6/2016	<0.005			<0.005		<0.005	<0.005		
6/7/2016		<0.005	<0.005		<0.005			<0.005	<0.005
8/30/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017							<0.005		<0.005
1/31/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	
5/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
6/7/2017							<0.005	<0.005	<0.005
1/22/2018						<0.005	<0.005		
1/23/2018	<0.005	<0.005	<0.005	<0.005					<0.005
1/24/2018					<0.005			<0.005	
5/1/2018		<0.005	<0.005	<0.005		<0.005	<0.005		<0.005
5/2/2018	<0.005				<0.005			<0.005	
11/26/2018				<0.005		<0.005			<0.005
11/27/2018	<0.005	<0.005	<0.005		<0.005		<0.005	<0.005	
5/28/2019				<0.005	<0.005	<0.005	<0.005	<0.005	
5/29/2019	<0.005	<0.005	<0.005						<0.005
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/30/2020					<0.005	<0.005	<0.005	<0.005	
3/31/2020	<0.005	<0.005	<0.005	0.0017 (J)					<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.005	
4/18/2016		
4/19/2016	<0.005	
6/6/2016		
6/7/2016	<0.005	
8/30/2016	<0.005	
10/18/2016	<0.005	
1/30/2017	<0.005	
1/31/2017		
5/2/2017	<0.005	
6/6/2017		
6/7/2017	<0.005	
1/22/2018		
1/23/2018	<0.005	
1/24/2018		
5/1/2018	<0.005	
5/2/2018		
11/26/2018	<0.005	
11/27/2018		
5/28/2019		
5/29/2019	<0.005	
10/2/2019	<0.005	
3/30/2020		
3/31/2020	<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.117	0.111	0.0862	0.0973	0.109	0.237	0.0546	0.0352	0.121
4/18/2016					0.135	0.263	0.0421	0.0251	
4/19/2016	0.099	0.0875	0.0718	0.0802					0.0926
6/6/2016	0.107			0.0862		0.206	0.0457		
6/7/2016		0.0979	0.0754		0.0892			0.0299	0.0998
8/30/2016	0.106	0.108	0.0768	0.0841	0.083	0.165	0.0469	0.0287	0.106
10/18/2016	0.102	0.103	0.0727	0.0715	0.0859	0.148	0.0611	0.0309	0.106
1/30/2017							0.0801		0.111
1/31/2017	0.0944	0.109	0.0698	0.0825	0.0779	0.123		0.0282	
5/2/2017	0.0868	0.125	0.0723	0.0777	0.0799	0.098	0.0388	0.0309	0.111
6/6/2017	0.0799	0.108	0.07	0.078	0.0788	0.0844			
6/7/2017							0.0437	0.0287	0.107
1/22/2018						0.0593	0.0399		
1/23/2018	0.0884	0.153	0.0747	0.0825					0.122
1/24/2018					0.0746			0.0351	
5/1/2018		0.167	0.0877	0.102		0.081	0.04		0.139
5/2/2018	0.137				0.085			0.0398	
11/26/2018				0.0994		0.0657			0.152
11/27/2018	0.157	0.158	0.0804		0.072		0.0427	0.0388	
5/28/2019				0.102	0.0684	0.17	0.0524	0.0412	
5/29/2019	0.166	0.172	0.0831						0.155
10/2/2019	0.129	0.183	0.089	0.111	0.0728	0.0985	0.0492	0.0453	0.16
3/30/2020					0.0718	0.142	0.0788	0.0444	
3/31/2020	0.176	0.171	0.0927	0.129					0.165

Time Series

Constituent: Barium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	0.134	
4/18/2016		
4/19/2016	0.114	
6/6/2016		
6/7/2016	0.118	
8/30/2016	0.126	
10/18/2016	0.127	
1/30/2017	0.1	
1/31/2017		
5/2/2017	0.114	
6/6/2017		
6/7/2017	0.0991	
1/22/2018		
1/23/2018	0.119	
1/24/2018		
5/1/2018	0.132	
5/2/2018		
11/26/2018	0.112	
11/27/2018		
5/28/2019		
5/29/2019	0.125	
10/2/2019	0.136	
3/30/2020		
3/31/2020	0.122	0.0499

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/18/2016					<0.003	0.000681 (J)	<0.003	<0.003	
4/19/2016	<0.003	<0.003	<0.003	<0.003					<0.003
6/6/2016	0.000612 (J)			<0.003		<0.003	<0.003		
6/7/2016		0.00093 (J)	<0.003		<0.003			<0.003	<0.003
8/30/2016	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
10/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/30/2017							<0.003		<0.003
1/31/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	
5/2/2017	0.00069 (J)	<0.003	<0.003	<0.003	<0.003	0.000704 (J)	<0.003	<0.003	<0.003
6/6/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/7/2017							<0.003	<0.003	<0.003
1/22/2018						<0.003	<0.003		
1/23/2018	<0.003	<0.003	<0.003	<0.003					<0.003
1/24/2018					<0.003			<0.003	
5/1/2018		<0.003	<0.003	<0.003		<0.003	<0.003		<0.003
5/2/2018	<0.003				<0.003			<0.003	
11/26/2018				<0.003		<0.003			<0.003
11/27/2018	0.000856 (J)	0.000801 (J)	<0.003		<0.003		<0.003	<0.003	
5/28/2019				<0.003	<0.003	<0.003	<0.003	<0.003	
5/29/2019	<0.003	<0.003	<0.003						<0.003
10/2/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/30/2020					<0.003	<0.003	<0.003	<0.003	
3/31/2020	<0.003	<0.003	<0.003	<0.003					<0.003

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.003	
4/18/2016		
4/19/2016	<0.003	
6/6/2016		
6/7/2016	<0.003	
8/30/2016	<0.003	
10/18/2016	<0.003	
1/30/2017	<0.003	
1/31/2017		
5/2/2017	<0.003	
6/6/2017		
6/7/2017	<0.003	
1/22/2018		
1/23/2018	<0.003	
1/24/2018		
5/1/2018	<0.003	
5/2/2018		
11/26/2018	<0.003	
11/27/2018		
5/28/2019		
5/29/2019	<0.003	
10/2/2019	<0.003	
3/30/2020		
3/31/2020	<0.003	<0.003

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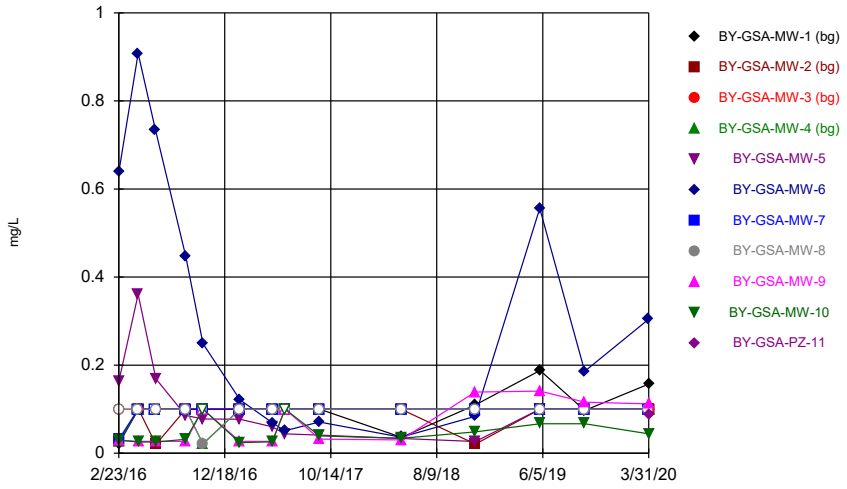
Hollow symbols indicate censored values.

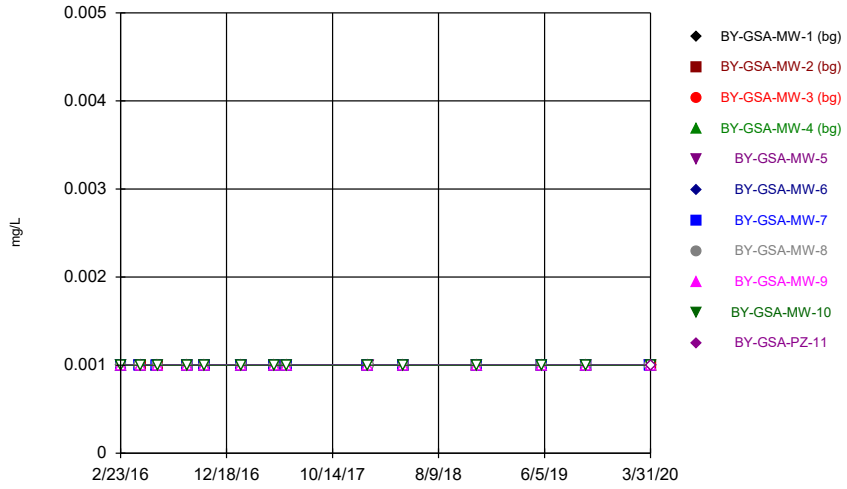
Time Series



Constituent: Boron Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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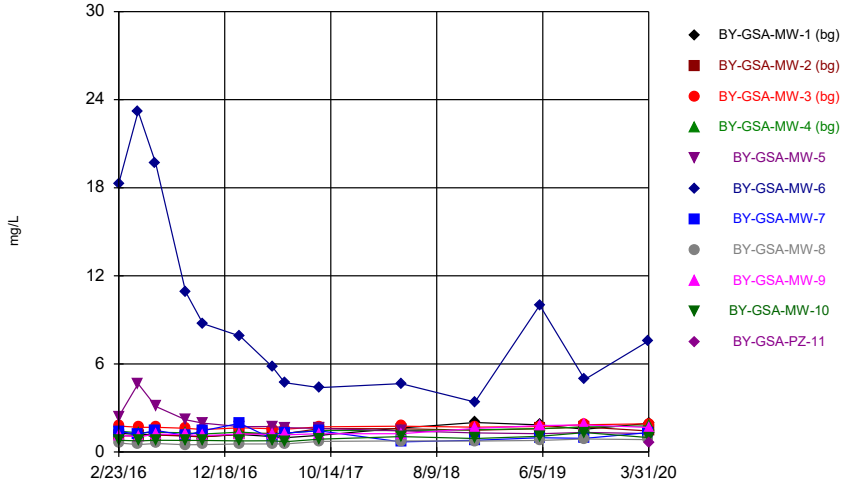
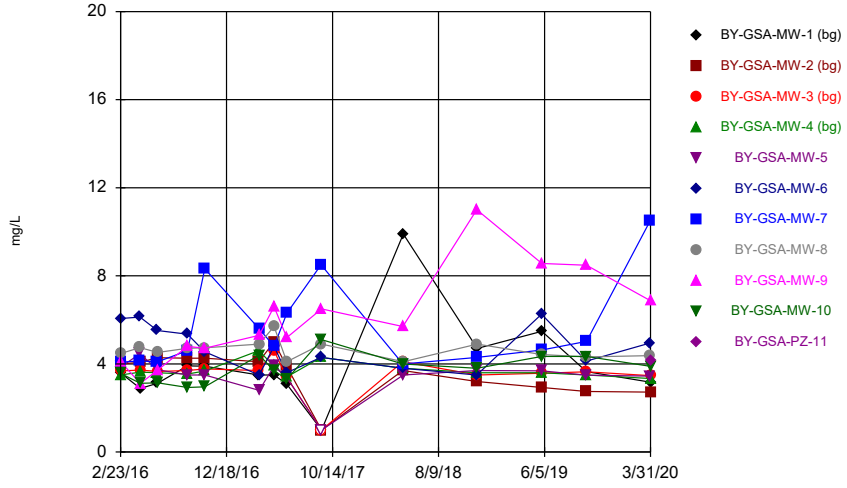
Time Series



Constituent: Calcium Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Chloride Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Boron (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.0212 (J)	0.0252 (J)	<0.1	0.0257 (J)	0.163	0.638	0.0314 (J)	<0.1	0.0297 (J)
4/18/2016					0.361	0.908	<0.1	<0.1	
4/19/2016	<0.1	<0.1	<0.1	<0.1					0.0269 (J)
6/6/2016	<0.1			<0.1		0.733	<0.1		
6/7/2016		0.0202 (J)	<0.1		0.169			<0.1	0.0271 (J)
8/30/2016	<0.1	<0.1	<0.1	<0.1	0.0858 (J)	0.448	<0.1	<0.1	0.0272 (J)
10/18/2016	<0.1	<0.1	<0.1	0.022 (J)	0.0778 (J)	0.249	<0.1	0.0207 (J)	<0.1
1/30/2017							<0.1		0.0269 (J)
1/31/2017	<0.1	<0.1	<0.1	<0.1	0.077 (J)	0.121		<0.1	
5/2/2017	<0.1	<0.1	<0.1	<0.1	0.0602 (J)	0.0695 (J)	<0.1	<0.1	0.027 (J)
6/6/2017	<0.1	<0.1	<0.1	<0.1	0.0442 (J)	0.0509 (J)			
6/7/2017							<0.1	<0.1	<0.1
9/12/2017				<0.1		0.0709 (J)	<0.1		
9/13/2017	<0.1	<0.1	<0.1		0.0411 (J)			<0.1	0.032 (J)
5/1/2018		<0.1	<0.1	<0.1		0.0365 (J)	<0.1		0.0302 (J)
5/2/2018	0.0362 (J)				0.0334 (J)			<0.1	
11/26/2018				<0.1		0.0836 (J)			0.139
11/27/2018	0.11	0.0207 (J)	<0.1		0.0265 (J)		<0.1	<0.1	
5/28/2019				<0.1	<0.1	0.556	<0.1	<0.1	
5/29/2019	0.188	<0.1	<0.1						0.141
10/2/2019	0.097 (J)	<0.1	<0.1	<0.1	<0.1	0.186	<0.1	<0.1	0.116
3/30/2020					<0.1	0.304	<0.1	<0.1	
3/31/2020	0.157	<0.1	<0.1	<0.1					0.112

Time Series

Constituent: Boron (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	0.0294 (J)	
4/18/2016		
4/19/2016	0.0257 (J)	
6/6/2016		
6/7/2016	0.0257 (J)	
8/30/2016	0.0317 (J)	
10/18/2016	<0.1	
1/30/2017	0.0243 (J)	
1/31/2017		
5/2/2017	0.0259 (J)	
6/6/2017		
6/7/2017	<0.1	
9/12/2017		
9/13/2017	0.0394 (J)	
5/1/2018	0.0338 (J)	
5/2/2018		
11/26/2018	0.0484 (J)	
11/27/2018		
5/28/2019		
5/29/2019	0.0669 (J)	
10/2/2019	0.0671 (J)	
3/30/2020		
3/31/2020	0.0442 (J)	0.0864 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/18/2016					<0.001	<0.001	<0.001	<0.001	
4/19/2016	<0.001	<0.001	<0.001	<0.001					<0.001
6/6/2016	<0.001			<0.001		<0.001	<0.001		
6/7/2016		<0.001	<0.001		<0.001			<0.001	<0.001
8/30/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10/18/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/30/2017							<0.001		<0.001
1/31/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	
5/2/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
6/7/2017							<0.001	<0.001	<0.001
1/22/2018						<0.001	<0.001		
1/23/2018	<0.001	<0.001	<0.001	<0.001					<0.001
1/24/2018					<0.001			<0.001	
5/1/2018		<0.001	<0.001	<0.001		<0.001	<0.001		<0.001
5/2/2018	<0.001				<0.001			<0.001	
11/26/2018				<0.001		<0.001			<0.001
11/27/2018	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001	
5/28/2019				<0.001	<0.001	<0.001	<0.001	<0.001	
5/29/2019	<0.001	<0.001	<0.001						<0.001
10/2/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/30/2020					<0.001	<0.001	<0.001	<0.001	
3/31/2020	<0.001	<0.001	<0.001	<0.001					<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.001	
4/18/2016		
4/19/2016	<0.001	
6/6/2016		
6/7/2016	<0.001	
8/30/2016	<0.001	
10/18/2016	<0.001	
1/30/2017	<0.001	
1/31/2017		
5/2/2017	<0.001	
6/6/2017		
6/7/2017	<0.001	
1/22/2018		
1/23/2018	<0.001	
1/24/2018		
5/1/2018	<0.001	
5/2/2018		
11/26/2018	<0.001	
11/27/2018		
5/28/2019		
5/29/2019	<0.001	
10/2/2019	<0.001	
3/30/2020		
3/31/2020	<0.001	<0.001

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	1.28	1.11	1.77	1.42	2.42	18.3	1.4	0.618	1.15
4/18/2016					4.65	23.2	1.2	0.505	
4/19/2016	1.19	1.09	1.68	1.31					1.04
6/6/2016	1.19			1.35		19.7	1.48		
6/7/2016		1.16	1.68		3.1			0.587	1.22
8/30/2016	1.11	1.08	1.62	1.31	2.19	10.9	1.13	0.495 (J)	1.18
10/18/2016	1.04	1.03	1.53	1.22	1.97	8.74	1.45	0.503	1.12
1/30/2017							1.95		1.23
1/31/2017	1.19	1.23	1.65	1.36	1.73	7.89		0.554	
5/2/2017	1.05	1.28	1.58	1.24	1.74	5.81	0.908	0.548	1.2
6/6/2017	0.978	1.25	1.55	1.28	1.66	4.72			
6/7/2017							1.29	0.545	1.17
9/12/2017				1.47		4.39	1.44		
9/13/2017	1.14	1.6	1.71		1.61			0.723	1.25
5/1/2018		1.58	1.76	1.47		4.66	0.695		1.25
5/2/2018	1.64				1.44			0.751	
11/26/2018				1.52		3.41			1.61
11/27/2018	2.01	1.49	1.69		1.3		0.798	0.743	
5/28/2019				1.6	1.25	10	0.973	0.789	
5/29/2019	1.85	1.59	1.74						1.8
10/2/2019	1.55	1.7	1.86	1.7	1.33	4.94	0.929	0.882	1.85
3/30/2020					1.26	7.56	1.32	0.841	
3/31/2020	1.96	1.43	1.92	1.78					1.67

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	0.795	
4/18/2016		
4/19/2016	0.761	
6/6/2016		
6/7/2016	0.799	
8/30/2016	0.788	
10/18/2016	0.788	
1/30/2017	0.755	
1/31/2017		
5/2/2017	0.763	
6/6/2017		
6/7/2017	0.706	
9/12/2017		
9/13/2017	0.873	
5/1/2018	1.05	
5/2/2018		
11/26/2018	0.922	
11/27/2018		
5/28/2019		
5/29/2019	1.07	
10/2/2019	1.32	
3/30/2020		
3/31/2020	0.98	0.663

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3.59	3.99	3.68	3.5	3.86	6.06	4.08	4.47	4.1
4/18/2016					4.46	6.13	4.14	4.74	
4/19/2016	2.89	4.08	3.72	3.63					3.11
6/6/2016	3.12			3.6		5.52	4.09		
6/7/2016		4.28	3.66		3.74			4.52	3.72
8/30/2016	3.91	4.26	3.7	3.54	3.5	5.35	4.6	4.71	4.8
10/18/2016	3.9	4.26	3.77	3.68	3.5	4.55	8.32	4.73	4.71
3/20/2017	3.5	4.1	3.7	4.6					
3/21/2017					2.8	3.5	5.6	4.9	5.3
5/2/2017	3.5	5	4.6	3.9	3.9	4.8	4.8	5.7	6.6
6/6/2017	3.1	3.9	3.4	3.4	3.4	3.6			
6/7/2017							6.3	4.1	5.2
9/12/2017				4.3		4.3	8.5		
9/13/2017	<2 (U*)	<2 (U*)	<2 (U*)		<2 (U*)			4.9	6.5
5/1/2018		3.7	4.1	3.8		3.8	4		5.7
5/2/2018	9.9				3.5			4.1	
11/26/2018				3.6		3.5			11
11/27/2018	4.7	3.2	3.5		3.7		4.3	4.9	
5/28/2019				3.6	3.69	6.26	4.63	4.43	
5/29/2019	5.48	2.93	3.58						8.56
10/2/2019	3.65	2.75	3.64	3.5	3.49	4.13	5.02	4.32	8.48
3/30/2020					3.45	4.95	10.5	4.38	
3/31/2020	3.17	2.72	3.47	3.34					6.87

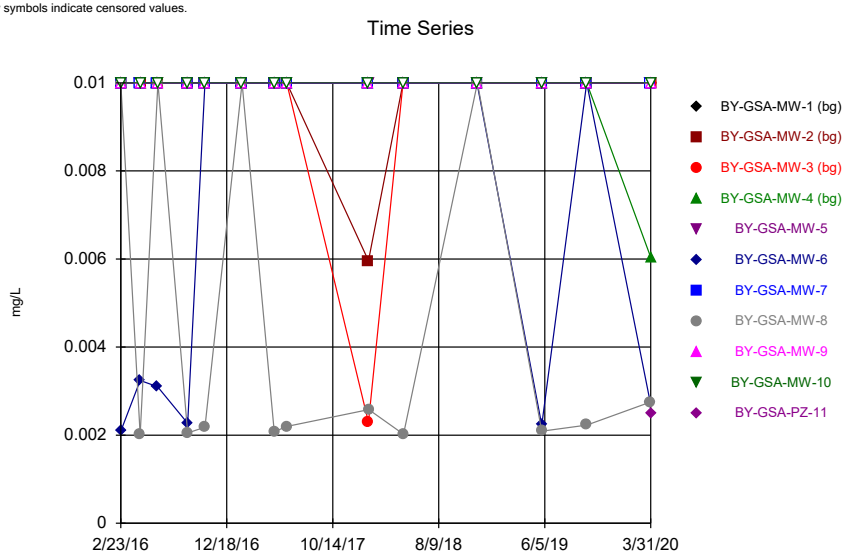
Time Series

Constituent: Chloride (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

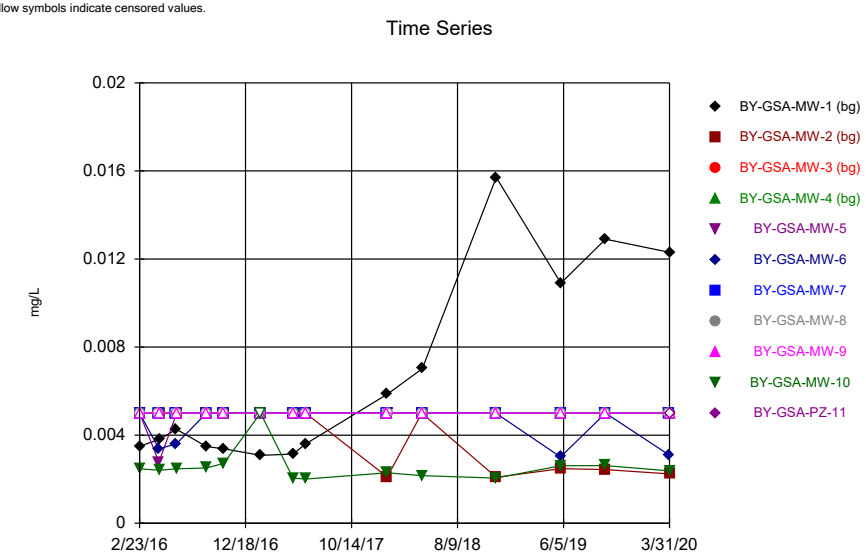
	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	3.57	
4/18/2016		
4/19/2016	3.12	
6/6/2016		
6/7/2016	3.14	
8/30/2016	2.93	
10/18/2016	2.96	
3/20/2017		
3/21/2017	4.4	
5/2/2017	3.7	
6/6/2017		
6/7/2017	3.3	
9/12/2017		
9/13/2017	5.1	
5/1/2018	4	
5/2/2018		
11/26/2018	3.8	
11/27/2018		
5/28/2019		
5/29/2019	4.34	
10/2/2019	4.34	
3/30/2020		
3/31/2020	3.89	4.13

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



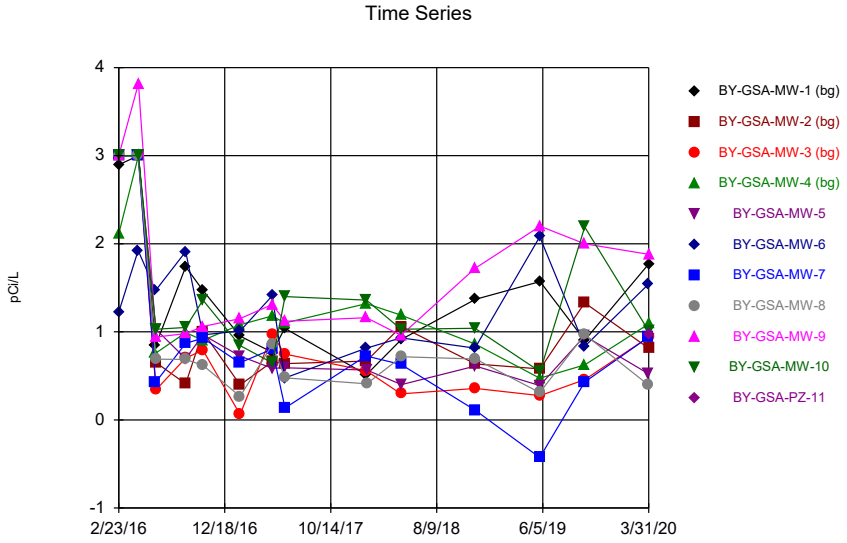
Constituent: Chromium Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



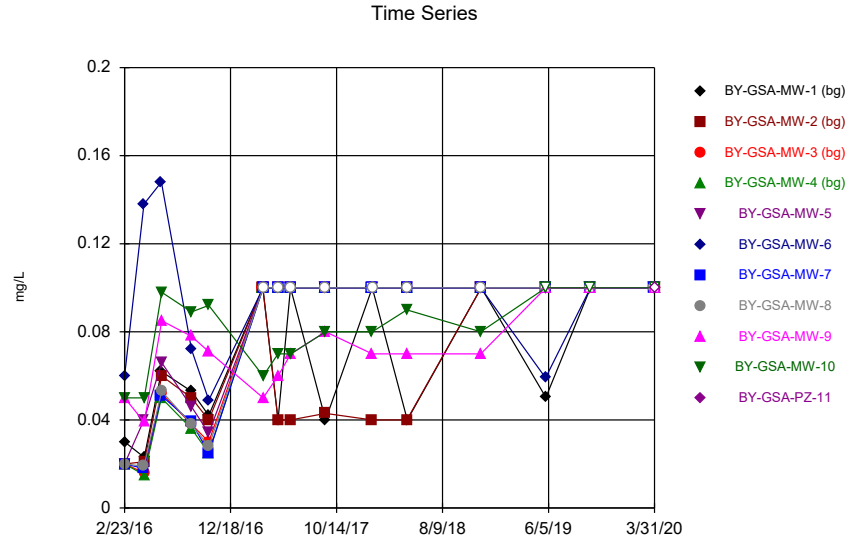
Constituent: Cobalt Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



Constituent: Combined Radium 226 + 228 Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



Constituent: Fluoride Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01	<0.01	<0.01	<0.01	<0.01	0.00209 (J)	<0.01	<0.01	<0.01
4/18/2016					<0.01	0.00324 (J)	<0.01	0.00201 (J)	
4/19/2016	<0.01	<0.01	<0.01	<0.01					<0.01
6/6/2016	<0.01			<0.01		0.0031 (J)	<0.01		
6/7/2016		<0.01	<0.01		<0.01			<0.01	<0.01
8/30/2016	<0.01	<0.01	<0.01	<0.01	<0.01	0.00227 (J)	<0.01	0.00205 (J)	<0.01
10/18/2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00218 (J)	<0.01
1/30/2017							<0.01		<0.01
1/31/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
5/2/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00208 (J)	<0.01
6/6/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
6/7/2017							<0.01	0.0022 (J)	<0.01
1/22/2018						<0.01	<0.01		
1/23/2018	<0.01	0.00596 (J)	0.00229 (J)	<0.01					<0.01
1/24/2018					<0.01			0.00258 (J)	
5/1/2018		<0.01	<0.01	<0.01		<0.01	<0.01		<0.01
5/2/2018	<0.01				<0.01			0.00202 (J)	
11/26/2018				<0.01		<0.01			<0.01
11/27/2018	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	
5/28/2019				<0.01	<0.01	0.00223 (J)	<0.01	0.00209 (J)	
5/29/2019	<0.01	<0.01	<0.01						<0.01
10/2/2019	<0.01	<0.01	<0.01	<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	<0.01	0.00604 (J)					<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.01	
4/18/2016		
4/19/2016	<0.01	
6/6/2016		
6/7/2016	<0.01	
8/30/2016	<0.01	
10/18/2016	<0.01	
1/30/2017	<0.01	
1/31/2017		
5/2/2017	<0.01	
6/6/2017		
6/7/2017	<0.01	
1/22/2018		
1/23/2018	<0.01	
1/24/2018		
5/1/2018	<0.01	
5/2/2018		
11/26/2018	<0.01	
11/27/2018		
5/28/2019		
5/29/2019	<0.01	
10/2/2019	<0.01	
3/30/2020		
3/31/2020	<0.01	0.00249 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.0035 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2016					0.00278 (J)	0.00338 (J)	<0.005	<0.005	
4/19/2016	0.0038 (J)	<0.005	<0.005	<0.005					<0.005
6/6/2016	0.00427 (J)			<0.005		0.00361 (J)	<0.005		
6/7/2016		<0.005	<0.005		<0.005			<0.005	<0.005
8/30/2016	0.00348 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	0.00338 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017							<0.005		<0.005
1/31/2017	0.00308 (J)	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	
5/2/2017	0.00314 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017	0.0036 (J)	<0.005	<0.005	<0.005	<0.005	<0.005			
6/7/2017							<0.005	<0.005	<0.005
1/22/2018						<0.005	<0.005		
1/23/2018	0.00586 (J)	0.0021 (J)	<0.005	<0.005					<0.005
1/24/2018					<0.005			<0.005	
5/1/2018		<0.005	<0.005	<0.005		<0.005	<0.005		<0.005
5/2/2018	0.00702 (J)				<0.005			<0.005	
11/26/2018				<0.005		<0.005			<0.005
11/27/2018	0.0157	0.00209 (J)	<0.005		<0.005		<0.005	<0.005	
5/28/2019				<0.005	<0.005	0.00301 (J)	<0.005	<0.005	
5/29/2019	0.0109	0.00248 (J)	<0.005						<0.005
10/2/2019	0.0129	0.00244 (J)	<0.005	<0.005	<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	0.0123	0.00224 (J)	<0.005	<0.005					<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	0.00247 (J)	
4/18/2016		
4/19/2016	0.00241 (J)	
6/6/2016		
6/7/2016	0.00247 (J)	
8/30/2016	0.00251 (J)	
10/18/2016	0.00272 (J)	
1/30/2017	<0.005	
1/31/2017		
5/2/2017	0.00205 (J)	
6/6/2017		
6/7/2017	0.00201 (J)	
1/22/2018		
1/23/2018	0.00229 (J)	
1/24/2018		
5/1/2018	0.00216 (J)	
5/2/2018		
11/26/2018	0.00205 (J)	
11/27/2018		
5/28/2019		
5/29/2019	0.00261 (J)	
10/2/2019	0.00262 (J)	
3/30/2020		
3/31/2020	0.00238 (J)	<0.005

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	2.8971 (U)	3 (U)	3 (U)	2.1138	3 (U)	1.2261 (U)	3 (U)	3 (U)	3 (U)
4/18/2016					3 (U)	1.92351 (U)	3 (U)	3 (U)	
4/19/2016	3 (U)	3 (U)	3 (U)	3 (U)					3.81872
6/6/2016	0.841			0.757		1.47	0.427		
6/7/2016		0.652	0.342 (U)		1.03			0.69	0.941
8/30/2016	1.74	0.411 (U)	0.702	0.992	0.696	1.91	0.869	0.687	0.98
10/18/2016	1.47	1	0.791	0.905	0.966	0.966	0.927	0.62	1.06
1/30/2017							0.649		1.15
1/31/2017	0.952	0.398 (U)	0.0613 (U)	1.08	0.724	1.01		0.266 (U)	
5/2/2017	0.768	0.66	0.974	1.18	0.587	1.41	0.804	0.853	1.31
6/6/2017	1.04	0.639	0.748	1.1	0.591	0.476			
6/7/2017							0.136 (U)	0.477	1.12
1/22/2018						0.814 (U)	0.726 (U)		
1/23/2018	0.513 (U)	0.669 (U)	0.558 (U)	1.32 (U)					1.16 (U)
1/24/2018					0.566 (U)			0.411 (U)	
5/1/2018		1.06	0.296 (U)	1.19		0.931	0.63		0.961
5/2/2018	0.916				0.401			0.718	
11/26/2018				0.863		0.815			1.72
11/27/2018	1.37	0.636	0.357 (U)		0.611		0.109 (U)	0.691	
5/28/2019				0.474 (U)	0.391 (U)	2.08	-0.428 (U)	0.311 (U)	
5/29/2019	1.57	0.579 (U)	0.275 (U)						2.2
10/2/2019	0.905	1.33	0.458 (U)	0.624 (U)	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	1.77	0.814	0.941	1.09					1.88

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	3 (U)	
4/18/2016		
4/19/2016	3 (U)	
6/6/2016		
6/7/2016	1.03	
8/30/2016	1.05	
10/18/2016	1.36	
1/30/2017	0.847	
1/31/2017		
5/2/2017	0.649	
6/6/2017		
6/7/2017	1.4	
1/22/2018		
1/23/2018	1.36 (U)	
1/24/2018		
5/1/2018	1.03	
5/2/2018		
11/26/2018	1.04	
11/27/2018		
5/28/2019		
5/29/2019	0.548 (U)	
10/2/2019	2.19	
3/30/2020		
3/31/2020	1.01	0.968

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.03 (J)	0.02 (J)	0.02 (J)	0.02 (J)	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)	0.05 (J)
4/18/2016					0.04 (J)	0.138 (J)	0.018 (J)	0.019 (J)	
4/19/2016	0.023 (J)	0.021 (J)	0.016 (J)	0.015 (J)					0.039 (J)
6/6/2016	0.062 (J)			0.05 (J)		0.148 (J)	0.051 (J)		
6/7/2016		0.06 (J)	0.052 (J)		0.066 (J)			0.053 (J)	0.085 (J)
8/30/2016	0.053 (J)	0.05 (J)	0.038 (J)	0.036 (J)	0.046 (J)	0.072 (J)	0.039 (J)	0.038 (J)	0.078 (J)
10/18/2016	0.042 (J)	0.04 (J)	0.03 (J)	0.025 (J)	0.034 (J)	0.049 (J)	0.025 (J)	0.028 (J)	0.071 (J)
3/20/2017	<0.1	<0.1	<0.1	<0.1					
3/21/2017					<0.1	<0.1	<0.1	<0.1	0.05 (J)
5/2/2017	0.04 (J)	0.04 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.06 (J)
6/6/2017	<0.1	0.04 (J)	<0.1	<0.1	<0.1	<0.1			
6/7/2017							<0.1	<0.1	0.07 (J)
9/12/2017				<0.1		<0.1	<0.1		
9/13/2017	0.04 (J)	0.043 (J)	<0.1		<0.1			<0.1	0.08 (J)
1/22/2018						<0.1	<0.1		
1/23/2018	<0.1	0.04 (J)	<0.1	<0.1					0.07 (J)
1/24/2018					<0.1			<0.1	
5/1/2018		0.04 (J)	<0.1	<0.1		<0.1	<0.1		0.07 (J)
5/2/2018	0.04 (J)				<0.1			<0.1	
11/26/2018				<0.1		<0.1			0.07 (J)
11/27/2018	<0.1	<0.1	<0.1		<0.1		<0.1	<0.1	
5/28/2019				<0.1	<0.1	0.0591 (J)	<0.1	<0.1	
5/29/2019	0.0502 (J)	<0.1	<0.1						<0.1
10/2/2019	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3/30/2020					<0.1	<0.1	<0.1	<0.1	
3/31/2020	<0.1	<0.1	<0.1	<0.1					<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	0.05 (J)	
4/18/2016		
4/19/2016	0.05 (J)	
6/6/2016		
6/7/2016	0.098 (J)	
8/30/2016	0.089 (J)	
10/18/2016	0.092 (J)	
3/20/2017		
3/21/2017	0.06 (J)	
5/2/2017	0.07 (J)	
6/6/2017		
6/7/2017	0.07 (J)	
9/12/2017		
9/13/2017	0.08 (J)	
1/22/2018		
1/23/2018	0.08 (J)	
1/24/2018		
5/1/2018	0.09 (J)	
5/2/2018		
11/26/2018	0.08 (J)	
11/27/2018		
5/28/2019		
5/29/2019	<0.1	
10/2/2019	<0.1	
3/30/2020		
3/31/2020	<0.1	<0.1

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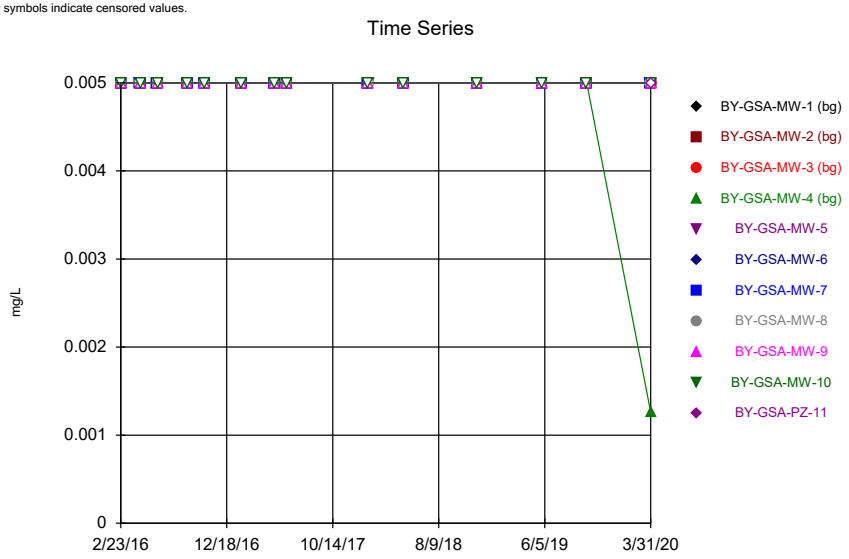
Hollow symbols indicate censored values.



Constituent: Lead Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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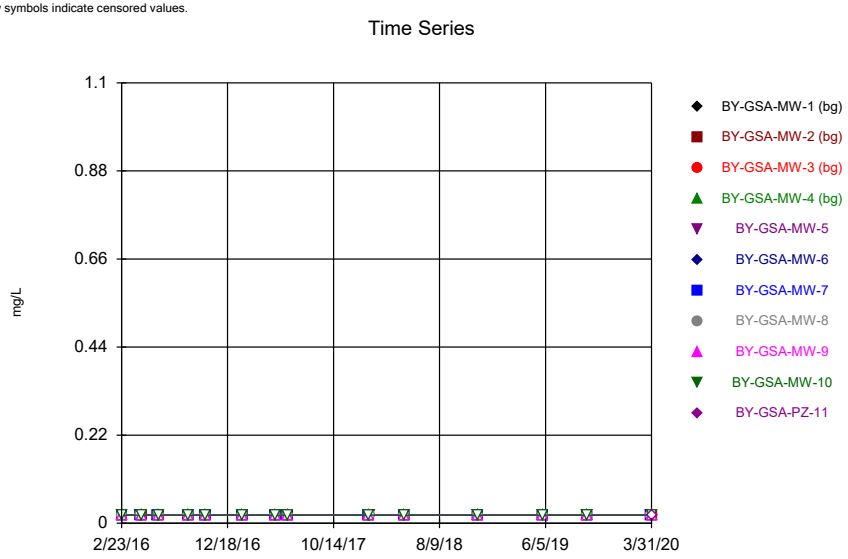
Hollow symbols indicate censored values.



Constituent: Lithium Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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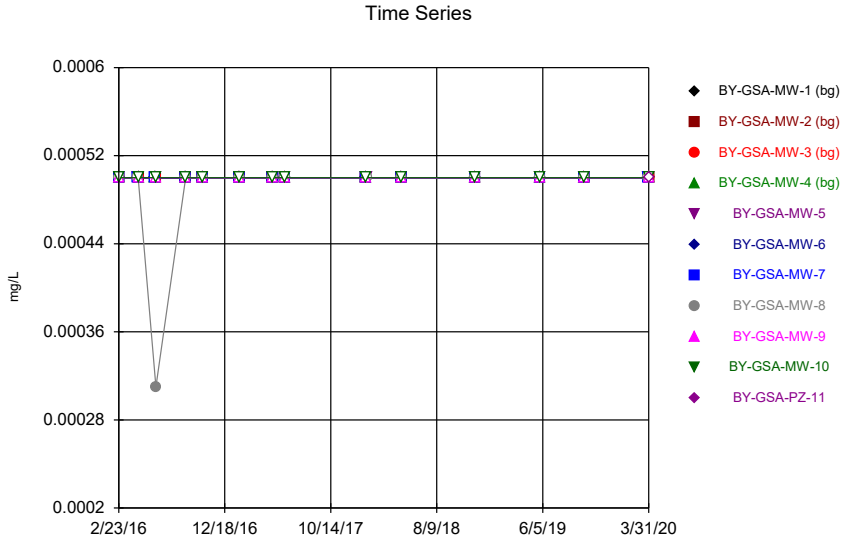
Hollow symbols indicate censored values.



Constituent: Mercury Analysis Run 7/23/2020 4:40 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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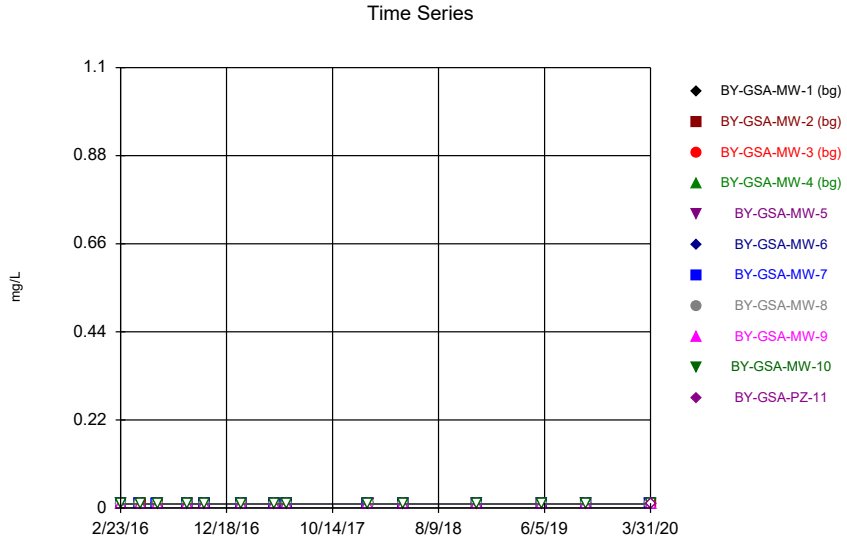
Hollow symbols indicate censored values.



Constituent: Molybdenum Analysis Run 7/23/2020 4:41 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Lead (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2016					<0.005	<0.005	<0.005	<0.005	
4/19/2016	<0.005	<0.005	<0.005	<0.005					<0.005
6/6/2016	<0.005			<0.005		<0.005	<0.005		
6/7/2016		<0.005	<0.005		<0.005			<0.005	<0.005
8/30/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017							<0.005		<0.005
1/31/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	
5/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
6/7/2017							<0.005	<0.005	<0.005
1/22/2018						<0.005	<0.005		
1/23/2018	<0.005	<0.005	<0.005	<0.005					<0.005
1/24/2018					<0.005			<0.005	
5/1/2018		<0.005	<0.005	<0.005		<0.005	<0.005		<0.005
5/2/2018	<0.005				<0.005			<0.005	
11/26/2018				<0.005		<0.005			<0.005
11/27/2018	<0.005	<0.005	<0.005		<0.005		<0.005	<0.005	
5/28/2019				<0.005	<0.005	<0.005	<0.005	<0.005	
5/29/2019	<0.005	<0.005	<0.005						<0.005
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/30/2020					<0.005	<0.005	<0.005	<0.005	
3/31/2020	<0.005	<0.005	<0.005	0.00126 (J)					<0.005

Time Series

Constituent: Lead (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.005	
4/18/2016		
4/19/2016	<0.005	
6/6/2016		
6/7/2016	<0.005	
8/30/2016	<0.005	
10/18/2016	<0.005	
1/30/2017	<0.005	
1/31/2017		
5/2/2017	<0.005	
6/6/2017		
6/7/2017	<0.005	
1/22/2018		
1/23/2018	<0.005	
1/24/2018		
5/1/2018	<0.005	
5/2/2018		
11/26/2018	<0.005	
11/27/2018		
5/28/2019		
5/29/2019	<0.005	
10/2/2019	<0.005	
3/30/2020		
3/31/2020	<0.005	<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/18/2016					<0.02	<0.02	<0.02	<0.02	
4/19/2016	<0.02	<0.02	<0.02	<0.02					<0.02
6/6/2016	<0.02			<0.02		<0.02	<0.02		
6/7/2016		<0.02	<0.02		<0.02			<0.02	<0.02
8/30/2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1/30/2017							<0.02		<0.02
1/31/2017	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		<0.02	
5/2/2017	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
6/6/2017	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			
6/7/2017							<0.02	<0.02	<0.02
1/22/2018						<0.02	<0.02		
1/23/2018	<0.02	<0.02	<0.02	<0.02					<0.02
1/24/2018					<0.02			<0.02	
5/1/2018		<0.02	<0.02	<0.02		<0.02	<0.02		<0.02
5/2/2018	<0.02				<0.02			<0.02	
11/26/2018				<0.02		<0.02			<0.02
11/27/2018	<0.02	<0.02	<0.02		<0.02		<0.02	<0.02	
5/28/2019				<0.02	<0.02	<0.02	<0.02	<0.02	
5/29/2019	<0.02	<0.02	<0.02						<0.02
10/2/2019	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
3/30/2020					<0.02	<0.02	<0.02	<0.02	
3/31/2020	<0.02	<0.02	<0.02	<0.02					<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.02	
4/18/2016		
4/19/2016	<0.02	
6/6/2016		
6/7/2016	<0.02	
8/30/2016	<0.02	
10/18/2016	<0.02	
1/30/2017	<0.02	
1/31/2017		
5/2/2017	<0.02	
6/6/2017		
6/7/2017	<0.02	
1/22/2018		
1/23/2018	<0.02	
1/24/2018		
5/1/2018	<0.02	
5/2/2018		
11/26/2018	<0.02	
11/27/2018		
5/28/2019		
5/29/2019	<0.02	
10/2/2019	<0.02	
3/30/2020		
3/31/2020	<0.02	<0.02

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/18/2016					<0.0005	<0.0005	<0.0005	<0.0005	
4/19/2016	<0.0005	<0.0005	<0.0005	<0.0005					<0.0005
6/6/2016	<0.0005			<0.0005		<0.0005	<0.0005		
6/7/2016		<0.0005	<0.0005		<0.0005			0.00031 (J)	<0.0005
8/30/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/30/2017							<0.0005		<0.0005
1/31/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	
5/2/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
6/7/2017							<0.0005	<0.0005	<0.0005
1/22/2018						<0.0005	<0.0005		
1/23/2018	<0.0005	<0.0005	<0.0005	<0.0005					<0.0005
1/24/2018					<0.0005			<0.0005	
5/1/2018		<0.0005	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005
5/2/2018	<0.0005				<0.0005			<0.0005	
11/26/2018				<0.0005		<0.0005			<0.0005
11/27/2018	<0.0005	<0.0005	<0.0005		<0.0005		<0.0005	<0.0005	
5/28/2019				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
5/29/2019	<0.0005	<0.0005	<0.0005						<0.0005
10/2/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/30/2020					<0.0005	<0.0005	<0.0005	<0.0005	
3/31/2020	<0.0005	<0.0005	<0.0005	<0.0005					<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.0005	
4/18/2016		
4/19/2016	<0.0005	
6/6/2016		
6/7/2016	<0.0005	
8/30/2016	<0.0005	
10/18/2016	<0.0005	
1/30/2017	<0.0005	
1/31/2017		
5/2/2017	<0.0005	
6/6/2017		
6/7/2017	<0.0005	
1/22/2018		
1/23/2018	<0.0005	
1/24/2018		
5/1/2018	<0.0005	
5/2/2018		
11/26/2018	<0.0005	
11/27/2018		
5/28/2019		
5/29/2019	<0.0005	
10/2/2019	<0.0005	
3/30/2020		
3/31/2020	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/18/2016					<0.01	<0.01	<0.01	<0.01	
4/19/2016	<0.01	<0.01	<0.01	<0.01					<0.01
6/6/2016	<0.01			<0.01		<0.01	<0.01		
6/7/2016		<0.01	<0.01		<0.01			<0.01	<0.01
8/30/2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/30/2017							<0.01		<0.01
1/31/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
5/2/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6/6/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
6/7/2017							<0.01	<0.01	<0.01
1/22/2018						<0.01	<0.01		
1/23/2018	<0.01	<0.01	<0.01	<0.01					<0.01
1/24/2018					<0.01			<0.01	
5/1/2018		<0.01	<0.01	<0.01		<0.01	<0.01		<0.01
5/2/2018	<0.01				<0.01			<0.01	
11/26/2018				<0.01		<0.01			<0.01
11/27/2018	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	
5/28/2019				<0.01	<0.01	<0.01	<0.01	<0.01	
5/29/2019	<0.01	<0.01	<0.01						<0.01
10/2/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/30/2020					<0.01	<0.01	<0.01	<0.01	
3/31/2020	<0.01	<0.01	<0.01	<0.01					<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.01	
4/18/2016		
4/19/2016	<0.01	
6/6/2016		
6/7/2016	<0.01	
8/30/2016	<0.01	
10/18/2016	<0.01	
1/30/2017	<0.01	
1/31/2017		
5/2/2017	<0.01	
6/6/2017		
6/7/2017	<0.01	
1/22/2018		
1/23/2018	<0.01	
1/24/2018		
5/1/2018	<0.01	
5/2/2018		
11/26/2018	<0.01	
11/27/2018		
5/28/2019		
5/29/2019	<0.01	
10/2/2019	<0.01	
3/30/2020		
3/31/2020	<0.01	<0.01

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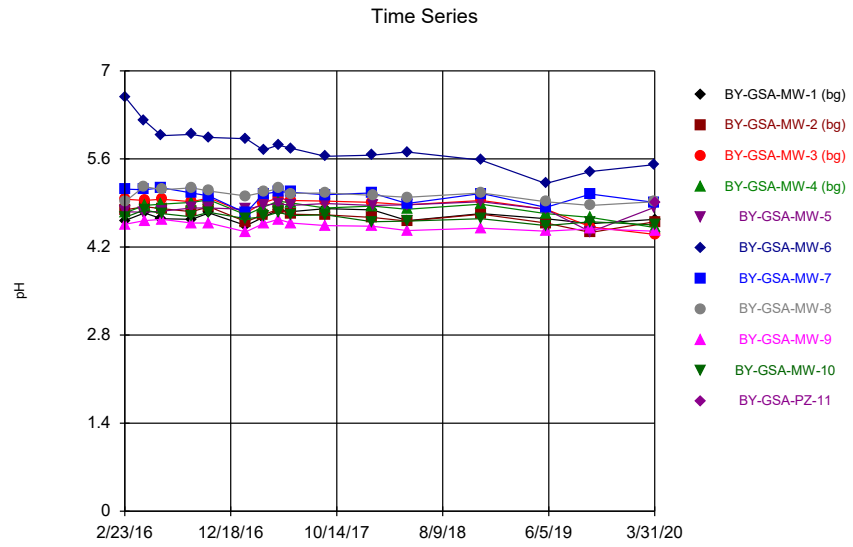
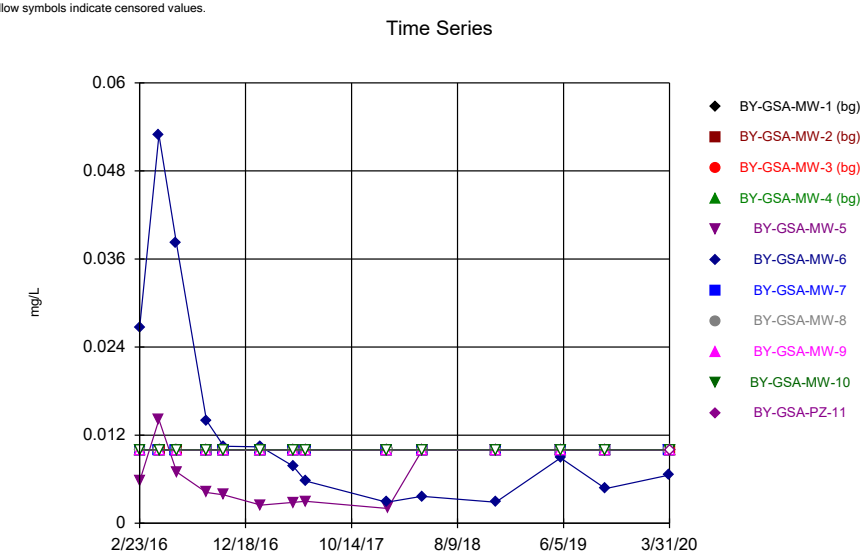


Constituent: pH Analysis Run 7/23/2020 4:41 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



Constituent: Selenium Analysis Run 7/23/2020 4:41 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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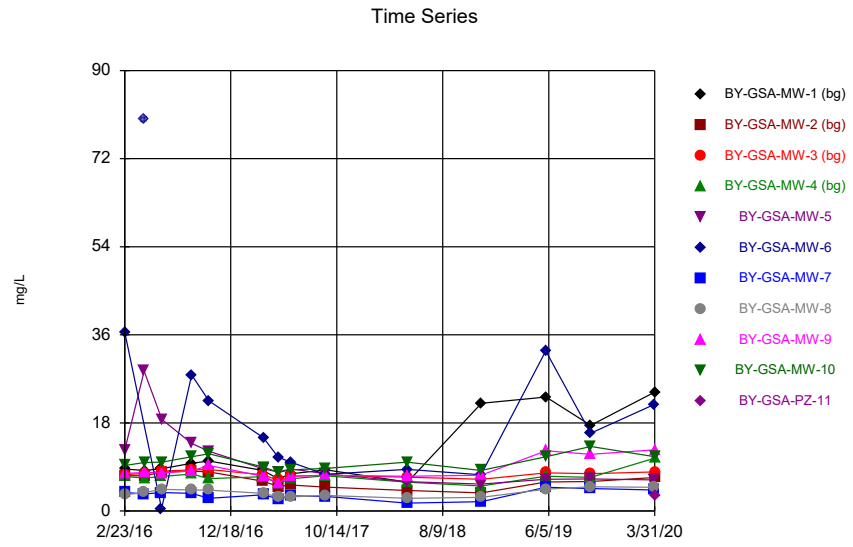

Constituent: Sulfate Analysis Run 7/23/2020 4:41 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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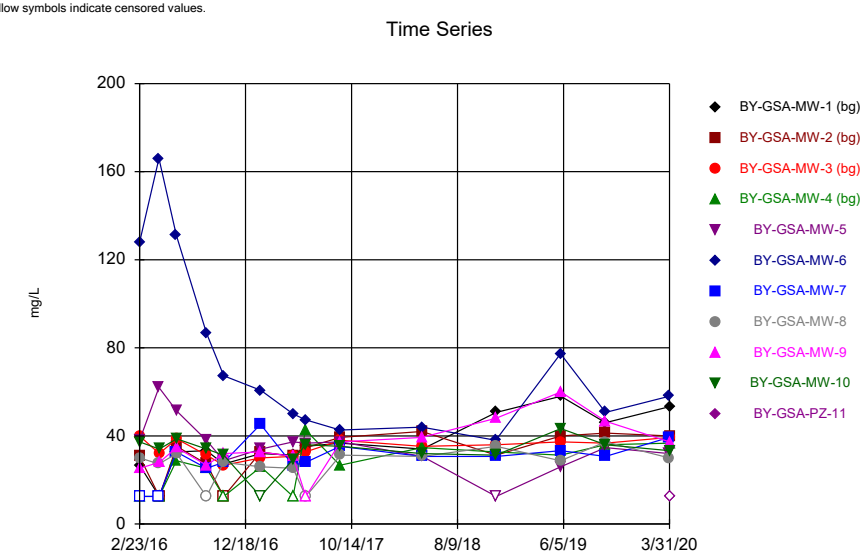
Hollow symbols indicate censored values.



Constituent: TDS Analysis Run 7/23/2020 4:41 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: pH (pH) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	4.62	4.79	4.96	4.74	4.76	6.59	5.12	4.92	4.56
4/18/2016					4.75	6.21	5.11	5.16	
4/19/2016	4.74	4.84	4.94	4.86					4.62
6/6/2016	4.65			4.88		5.97	5.14		
6/7/2016		4.81	4.96		4.77			5.11	4.64
8/30/2016	4.64	4.76	4.92	4.91	4.82	5.99	5.06	5.14	4.58
10/18/2016	4.74	4.84	4.98	4.95	4.82	5.94	5.01	5.09	4.58
1/30/2017							4.74		4.44
1/31/2017	4.54	4.6	4.74	4.71	4.8	5.92		5.01	
3/20/2017	4.67	4.71	4.9	4.83					
3/21/2017					4.86	5.74	5.04	5.07	4.57
5/2/2017	4.79	4.8	4.98	4.93	4.89	5.82	5.08	5.13	4.64
6/6/2017	4.76	4.72	4.94	4.9	4.86	5.77			
6/7/2017							5.07	5.05	4.58
9/12/2017				4.82		5.64	5.03		
9/13/2017	4.81	4.71	4.93		4.89			5.06	4.54
1/22/2018						5.66	5.06		
1/23/2018	4.79	4.67	4.91	4.85					4.53
1/24/2018					4.86			5.02	
5/1/2018		4.61	4.87	4.8		5.71	4.89		4.46
5/2/2018	4.62				4.87			4.99	
11/26/2018				4.88		5.58			4.5
11/27/2018	4.73	4.72	4.94		4.92		5.05	5.06	
5/28/2019				4.73	4.8	5.21	4.83	4.92	
5/29/2019	4.65	4.58	4.8						4.45
10/2/2019	4.57	4.43	4.52	4.67	4.44	5.4	5.04	4.86	4.49
3/30/2020					4.83	5.51	4.91	4.92	
3/31/2020	4.64	4.6	4.4	4.51					4.45

Time Series

Constituent: pH (pH) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	4.67	
4/18/2016		
4/19/2016	4.79	
6/6/2016		
6/7/2016	4.73	
8/30/2016	4.68	
10/18/2016	4.75	
1/30/2017	4.65	
1/31/2017		
3/20/2017		
3/21/2017	4.68	
5/2/2017	4.75	
6/6/2017		
6/7/2017	4.7	
9/12/2017		
9/13/2017	4.71	
1/22/2018		
1/23/2018	4.6	
1/24/2018		
5/1/2018	4.61	
5/2/2018		
11/26/2018	4.65	
11/27/2018		
5/28/2019		
5/29/2019	4.54	
10/2/2019	4.6	
3/30/2020		
3/31/2020	4.55	4.91

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01	<0.01	<0.01	<0.01	0.00572 (J)	0.0266	<0.01	<0.01	<0.01
4/18/2016					0.0141	0.0529	<0.01	<0.01	
4/19/2016	<0.01	<0.01	<0.01	<0.01					<0.01
6/6/2016	<0.01			<0.01		0.0382	<0.01		
6/7/2016		<0.01	<0.01		0.00698 (J)			<0.01	<0.01
8/30/2016	<0.01	<0.01	<0.01	<0.01	0.0042 (J)	0.014	<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01	<0.01	<0.01	0.00386 (J)	0.0105	<0.01	<0.01	<0.01
1/30/2017							<0.01		<0.01
1/31/2017	<0.01	<0.01	<0.01	<0.01	0.00247 (J)	0.0104		<0.01	
5/2/2017	<0.01	<0.01	<0.01	<0.01	0.00284 (J)	0.00778 (J)	<0.01	<0.01	<0.01
6/6/2017	<0.01	<0.01	<0.01	<0.01	0.003 (J)	0.00576 (J)			
6/7/2017							<0.01	<0.01	<0.01
1/22/2018						0.00287 (J)	<0.01		
1/23/2018	<0.01	<0.01	<0.01	<0.01					<0.01
1/24/2018					0.00201 (J)			<0.01	
5/1/2018		<0.01	<0.01	<0.01		0.00367 (J)	<0.01		<0.01
5/2/2018	<0.01				<0.01			<0.01	
11/26/2018				<0.01		0.00286 (J)			<0.01
11/27/2018	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	
5/28/2019				<0.01	<0.01	0.0089 (J)	<0.01	<0.01	
5/29/2019	<0.01	<0.01	<0.01						<0.01
10/2/2019	<0.01	<0.01	<0.01	<0.01	<0.01	0.00472 (J)	<0.01	<0.01	<0.01
3/30/2020					<0.01	0.00658 (J)	<0.01	<0.01	
3/31/2020	<0.01	<0.01	<0.01	<0.01					<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.01	
4/18/2016		
4/19/2016	<0.01	
6/6/2016		
6/7/2016	<0.01	
8/30/2016	<0.01	
10/18/2016	<0.01	
1/30/2017	<0.01	
1/31/2017		
5/2/2017	<0.01	
6/6/2017		
6/7/2017	<0.01	
1/22/2018		
1/23/2018	<0.01	
1/24/2018		
5/1/2018	<0.01	
5/2/2018		
11/26/2018	<0.01	
11/27/2018		
5/28/2019		
5/29/2019	<0.01	
10/2/2019	<0.01	
3/30/2020		
3/31/2020	<0.01	<0.01

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	8.59	7.2	7.44	7.04	12.5	36.5	3.82	3.33	7.71
4/18/2016					28.6		3.48	3.78	
4/19/2016	8.27	7.22	7.66	6.74					7.85
6/6/2016	8.66			7.04		0.498 (J)	3.76		
6/7/2016		7.92	8.16		18.7			4.44	7.76
8/30/2016	9.74	8.17	8.43	7.57	13.8	27.8	3.62	4.29	8.22
10/18/2016	10.2	7.99	8.47	6.62	12.2	22.5	2.58	4.27	9.29
3/20/2017	8.3	6.1	7.4	7					
3/21/2017					8.6	15	3.3 (J)	3.6 (J)	7.1
5/2/2017	6.6	5	6.3	5.6	8	11	2.5 (J)	2.9 (J)	5.7
6/6/2017	7.6	5.3	7.1	6.6	8.6	10			
6/7/2017							3.1 (J)	2.9 (J)	7.1
9/12/2017				7.2		7.5	3 (J)		
9/13/2017	8.4	4.9 (J)	7.3		7.6			3.2 (J)	7.3
5/1/2018		4.2 (J)	6.9	5.9		8.5	1.6 (J)		7.1
5/2/2018	5.9				6			2.6 (J)	
11/26/2018				5.1		7.4			7.3
11/27/2018	22	3.7 (J)	6.5		5.5		1.9 (J)	2.8 (J)	
5/28/2019				7.1	6.5	32.7	4.86	4.46	
5/29/2019	23.3	5.94	7.81						12.3
10/2/2019	17.5	6.04	7.62	6.88	6.55	15.9	4.6	4.96	11.6
3/30/2020					6.34	21.8	4.29	4.84	
3/31/2020	24.3	6.83	7.98	10.8					12.5

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	9.29	
4/18/2016		
4/19/2016	9.92	
6/6/2016		
6/7/2016	10	
8/30/2016	11.1	
10/18/2016	11.7	
3/20/2017		
3/21/2017	9	
5/2/2017	7.9	
6/6/2017		
6/7/2017	8.4	
9/12/2017		
9/13/2017	8.7	
5/1/2018	10	
5/2/2018		
11/26/2018	8.3	
11/27/2018		
5/28/2019		
5/29/2019	11.1	
10/2/2019	13.2	
3/30/2020		
3/31/2020	11.1	3.16

Time Series

Constituent: TDS (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	26.7	30.7	40	<25	38	128	<25	30	25.3
4/18/2016					62	166	<25	27.3	
4/19/2016	<25	<25	32	<25					28
6/6/2016	32.7			28.7		131	32.7		
6/7/2016		35.3	38.7		51.3			32	34.7
8/30/2016	33.3	27.3	31.3	25.3	38	86.7	25.3	<25	26.7
10/18/2016	27.3	<25	26.7	<25	28.7	67.3	28	28	32
1/30/2017							45.3		32.7
1/31/2017	32	32.7	30	26	34	60.7		26	
5/2/2017	31.3	30.7	30.7	<25	37.3	50	26.7	25.3	30.7
6/6/2017	35.3	34.7	32.7	42.7	36.7	47.3			
6/7/2017							28	<25	<25
9/12/2017				26.7		42.7	35.3		
9/13/2017	36.7	39.3	38		37.3			31.3	37.3
5/1/2018		42	35.3	34.7		44	30.7		39.3
5/2/2018	34				30.7			30.7	
11/26/2018				32.7		38			48
11/27/2018	50.7	31.3	36		<25		30.7	35.3	
5/28/2019				31.3	26	77.3	33.3	28.7	
5/29/2019	58	40	37.3						60
10/2/2019	46	41.3	36.7	36	34.7	50.7	30.7	37.3	46.7
3/30/2020					32	58	39.3	30	
3/31/2020	53.3	40	39.3	36.7					37.3

Time Series

Constituent: TDS (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	37.3	
4/18/2016		
4/19/2016	34	
6/6/2016		
6/7/2016	38.7	
8/30/2016	34	
10/18/2016	31.3	
1/30/2017	<25	
1/31/2017		
5/2/2017	29.3	
6/6/2017		
6/7/2017	36	
9/12/2017		
9/13/2017	35.3	
5/1/2018	32	
5/2/2018		
11/26/2018	31.3	
11/27/2018		
5/28/2019		
5/29/2019	43.3	
10/2/2019	36	
3/30/2020		
3/31/2020	33.3	<25

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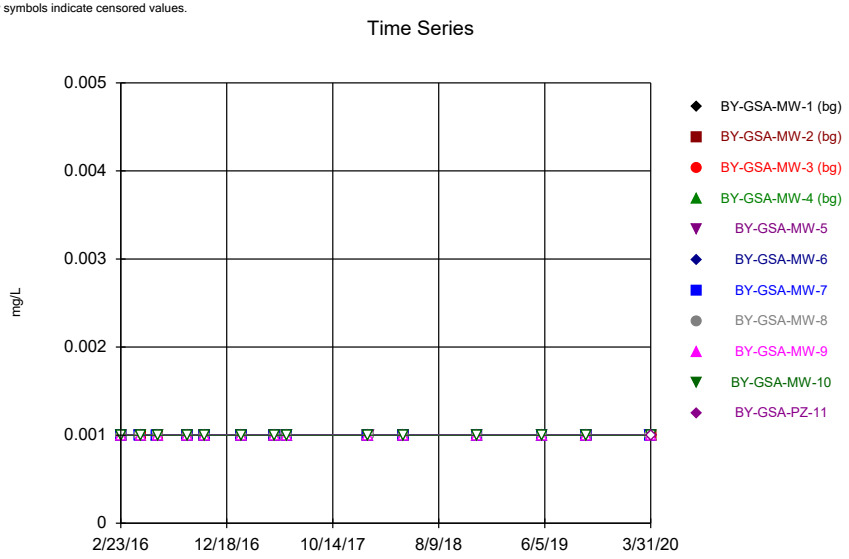
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 7/23/2020 4:41 PM View: Time Series
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/18/2016					<0.001	<0.001	<0.001	<0.001	
4/19/2016	<0.001	<0.001	<0.001	<0.001					<0.001
6/6/2016	<0.001			<0.001		<0.001	<0.001		
6/7/2016		<0.001	<0.001		<0.001			<0.001	<0.001
8/30/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10/18/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/30/2017							<0.001		<0.001
1/31/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	
5/2/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
6/7/2017							<0.001	<0.001	<0.001
1/22/2018						<0.001	<0.001		
1/23/2018	<0.001	<0.001	<0.001	<0.001					<0.001
1/24/2018					<0.001			<0.001	
5/1/2018		<0.001	<0.001	<0.001		<0.001	<0.001		<0.001
5/2/2018	<0.001				<0.001			<0.001	
11/26/2018				<0.001		<0.001			<0.001
11/27/2018	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001	
5/28/2019				<0.001	<0.001	<0.001	<0.001	<0.001	
5/29/2019	<0.001	<0.001	<0.001						<0.001
10/2/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/30/2020					<0.001	<0.001	<0.001	<0.001	
3/31/2020	<0.001	<0.001	<0.001	<0.001					<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/23/2020 4:42 PM View: Time Series

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-PZ-11
2/23/2016	<0.001	
4/18/2016		
4/19/2016	<0.001	
6/6/2016		
6/7/2016	<0.001	
8/30/2016	<0.001	
10/18/2016	<0.001	
1/30/2017	<0.001	
1/31/2017		
5/2/2017	<0.001	
6/6/2017		
6/7/2017	<0.001	
1/22/2018		
1/23/2018	<0.001	
1/24/2018		
5/1/2018	<0.001	
5/2/2018		
11/26/2018	<0.001	
11/27/2018		
5/28/2019		
5/29/2019	<0.001	
10/2/2019	<0.001	
3/30/2020		
3/31/2020	<0.001	<0.001

Upper Tolerance Limits - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/24/2020, 8:10 AM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Barium (mg/L)	0.183	n/a	52	n/a	n/a	0	n/a	n/a	0.06944	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	52	n/a	n/a	96.15	n/a	n/a	0.06944	NP Inter(NDs)
Cobalt (mg/L)	0.0157	n/a	52	n/a	n/a	67.31	n/a	n/a	0.06944	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	3.202	n/a	52	0.9903	0.2355	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.1	n/a	56	n/a	n/a	48.21	n/a	n/a	0.05656	NP Inter(normal...
Lead (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Lithium (mg/L)	0.02	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)

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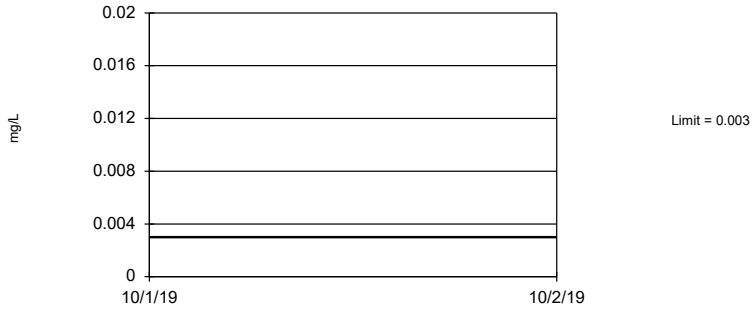
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 90.38% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Antimony Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Arsenic Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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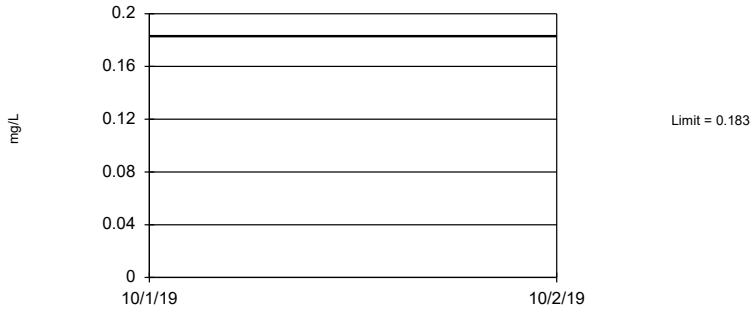
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 52 background values. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Barium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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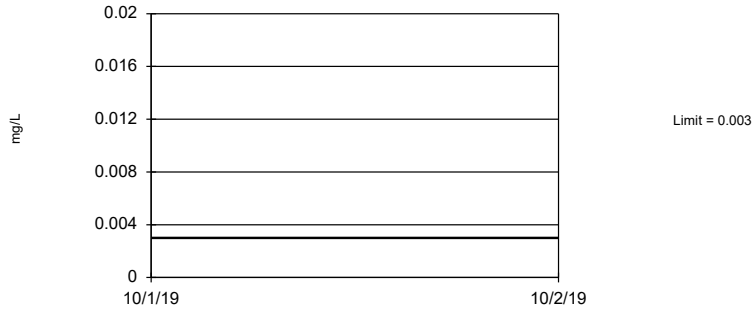
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 90.38% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Beryllium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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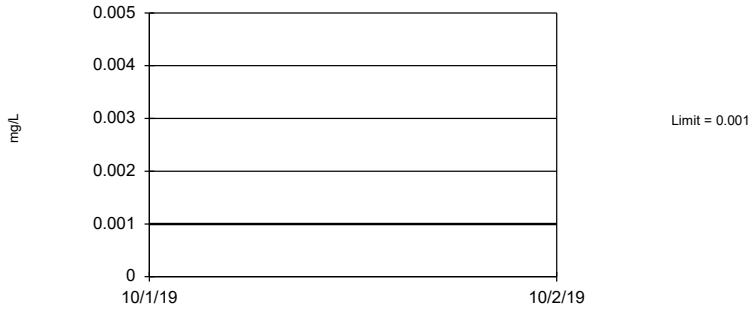
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Cadmium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 96.15% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Chromium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 67.31% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Cobalt Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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Tolerance Limit

Interwell Parametric

95% coverage. Background Data Summary (based on cube root transformation): Mean=0.9903, Std. Dev.=0.2355, n=52. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9388, critical = 0.937. Report alpha = 0.05.

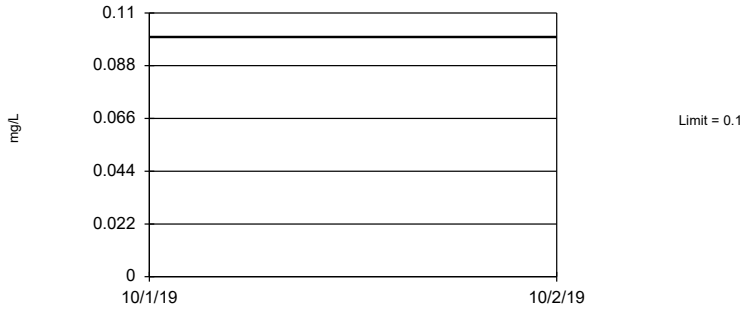
Constituent: Combined Radium 226 + 228 Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 48.21% NDs. 91.99% coverage at alpha=0.01; 94.73% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.05656.

Constituent: Fluoride Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lead Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lithium Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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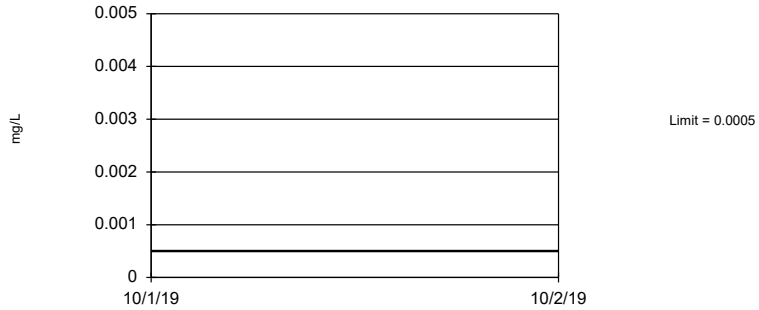
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Mercury Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Molybdenum Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

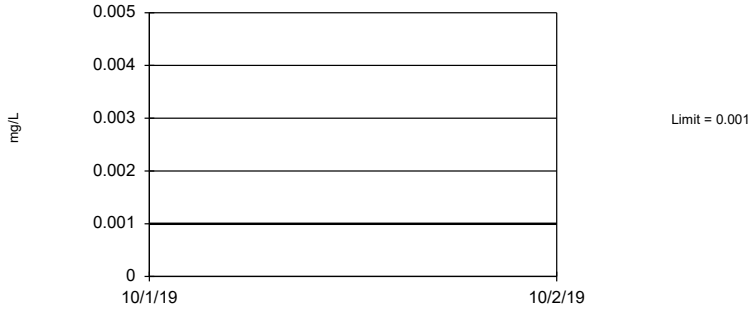
Constituent: Selenium Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Thallium Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Confidence Intervals - All Results (No Significant Results)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/24/2020, 8:15 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-5	0.003	0.000866	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-6	0.003	0.000926	0.006	No	14	85.71	No	0.01	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-7	0.003	0.00119	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-8	0.003	0.000885	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-9	0.003	0.000859	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-10	0.003	0.000838	0.006	No	14	92.86	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-5	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-6	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-7	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-8	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Barium (mg/L)	BY-GSA-MW-5	0.0892	0.072	2	No	14	0	No	0.01	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.1838	0.09348	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.0611	0.04	2	No	14	0	No	0.01	NP (normality)
Barium (mg/L)	BY-GSA-MW-8	0.03905	0.02984	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1422	0.1075	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-10	0.1279	0.1118	2	No	14	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-6	0.003	0.000704	0.004	No	14	85.71	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-7	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-8	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-9	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-10	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-6	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-7	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-8	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-9	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-10	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-6	0.01	0.00227	0.1	No	14	57.14	No	0.01	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-7	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-8	0.01	0.00205	0.1	No	14	28.57	No	0.01	NP (normality)
Chromium (mg/L)	BY-GSA-MW-9	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-10	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-5	0.005	0.00278	0.0157	No	14	92.86	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-6	0.005	0.00338	0.0157	No	14	71.43	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-10	0.00262	0.00205	0.0157	No	14	7.143	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.03	0.525	5	No	14	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	1.591	0.8961	5	No	14	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	0.939	0.136	5	No	14	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.168	0.4212	5	No	14	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	2.064	1.094	5	No	14	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	1.817	0.8606	5	No	14	0	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-5	0.1	0.04	4	No	15	66.67	No	0.01	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.138	0.06	4	No	15	60	No	0.01	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-7	0.1	0.025	4	No	15	66.67	No	0.01	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-8	0.1	0.028	4	No	15	66.67	No	0.01	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.07063	0.04821	4	No	15	20	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.08254	0.0584	4	No	15	20	No	0.01	Param.
Lead (mg/L)	BY-GSA-MW-5	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-GSA-MW-6	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-GSA-MW-7	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-GSA-MW-8	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-GSA-MW-9	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-5	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-6	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-7	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-8	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-9	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-10	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)

Confidence Intervals - All Results (No Significant Results)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/24/2020, 8:15 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Mercury (mg/L)	BY-GSA-MW-7	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-8	0.0005	0.00031	0.002	No	14	92.86	No	0.01	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-9	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-10	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-6	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-7	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-9	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-10	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-5	0.006774	0.002455	0.05	No	14	35.71	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.01966	0.004762	0.05	No	14	0	x^(1/3)	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-5	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-6	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-7	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-8	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-9	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-10	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)

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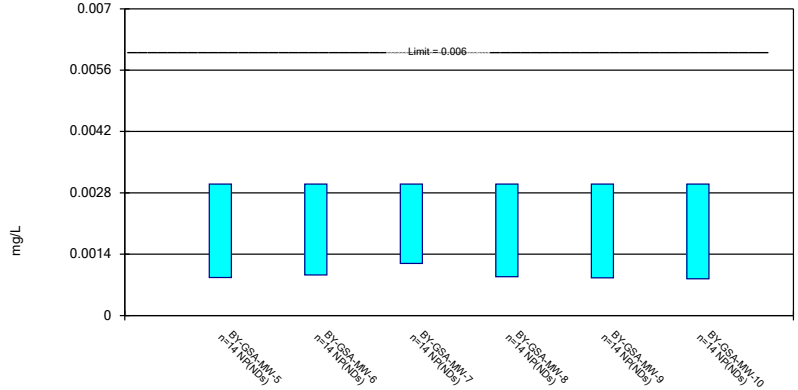
Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



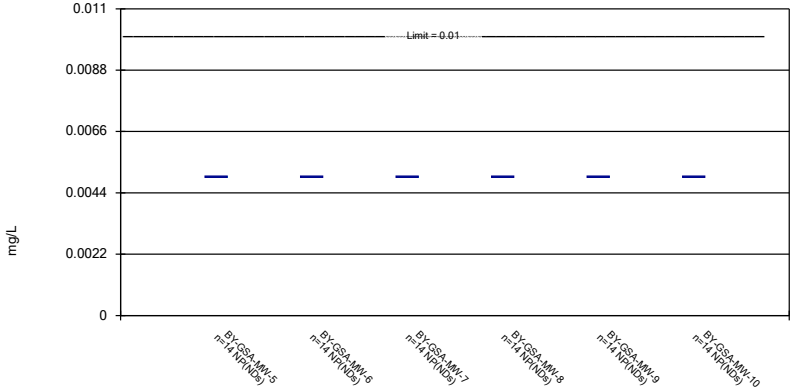
Constituent: Antimony Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



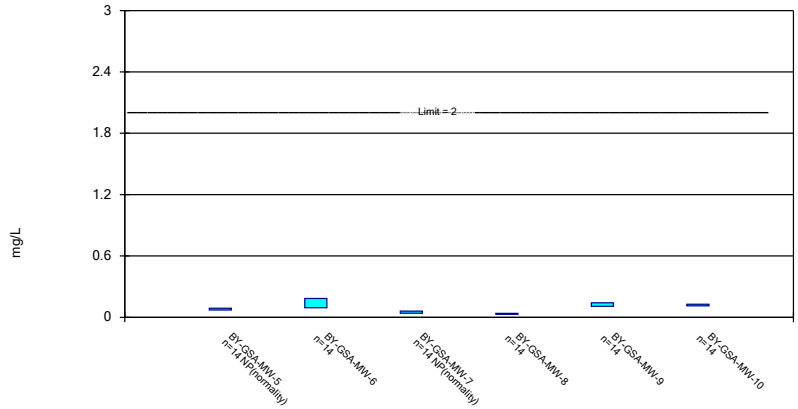
Constituent: Arsenic Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



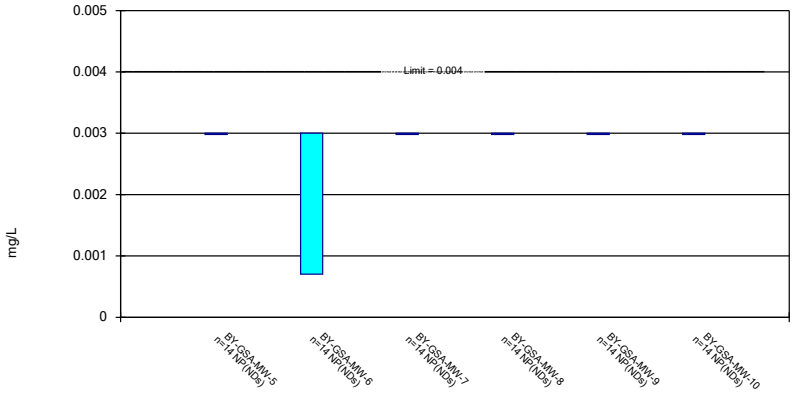
Constituent: Barium Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



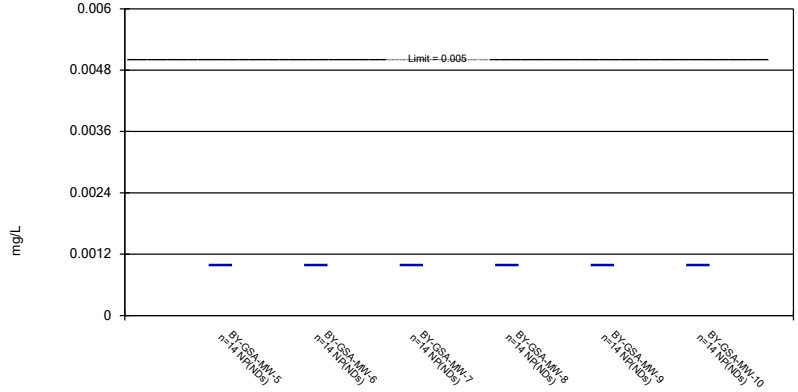
Constituent: Beryllium Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



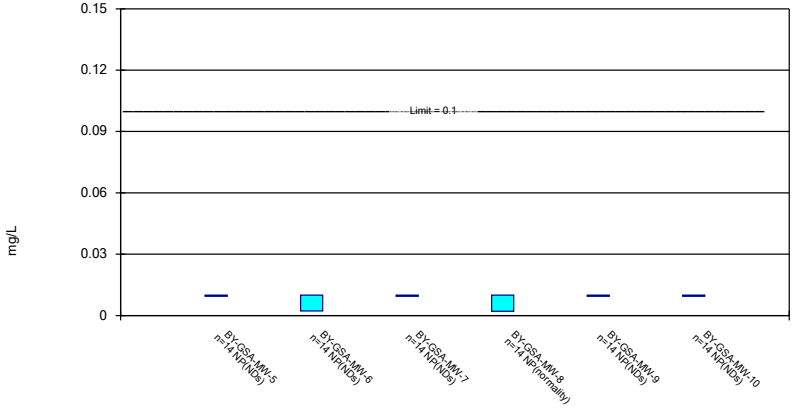
Constituent: Cadmium Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



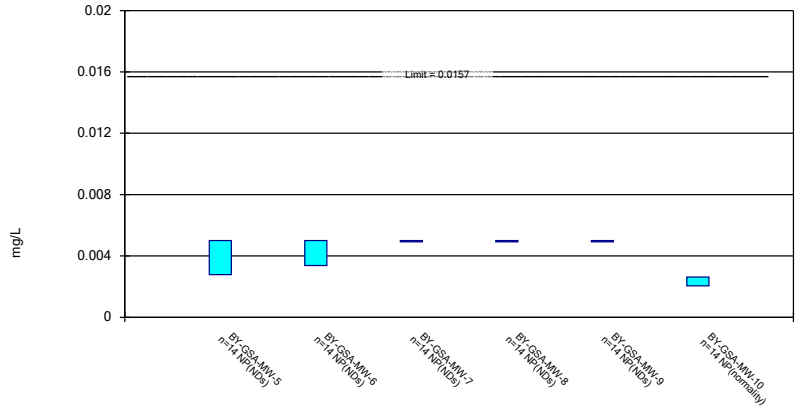
Constituent: Chromium Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



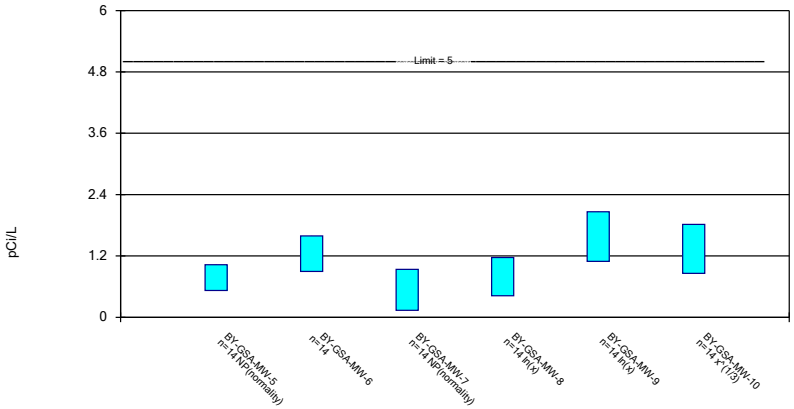
Constituent: Cobalt Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



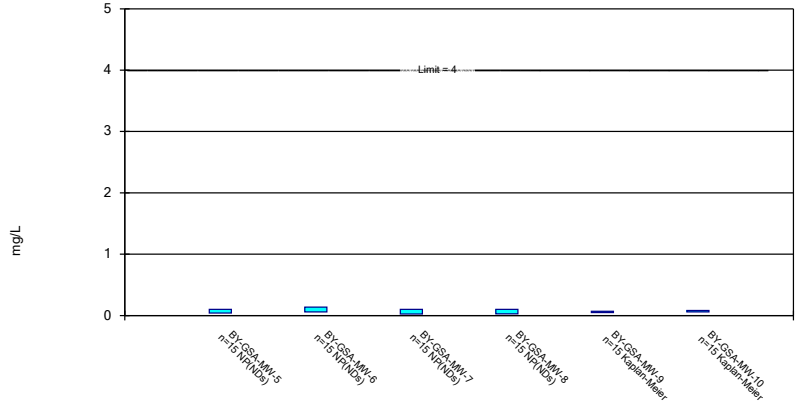
Constituent: Combined Radium 226 + 228 Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



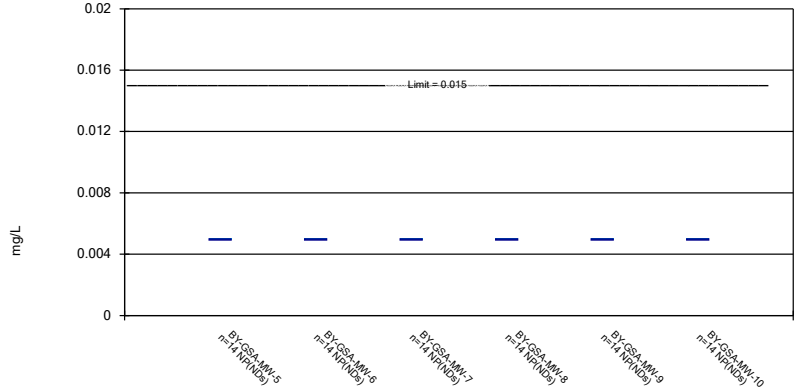
Constituent: Fluoride Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



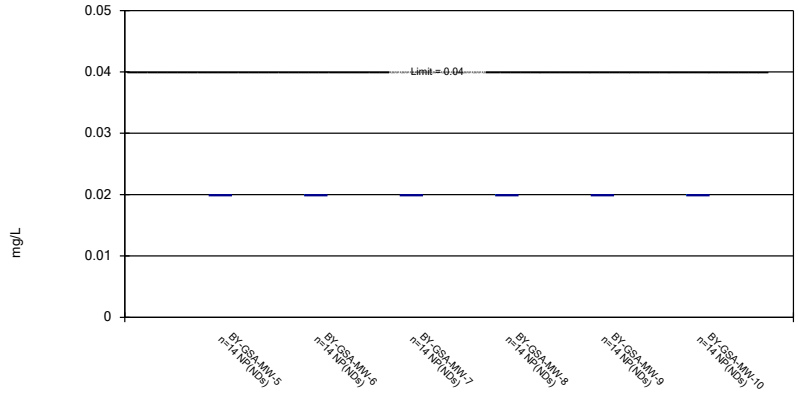
Constituent: Lead Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



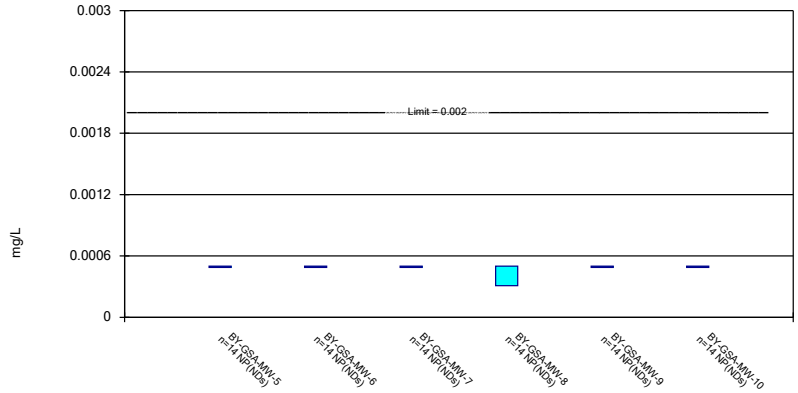
Constituent: Lithium Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

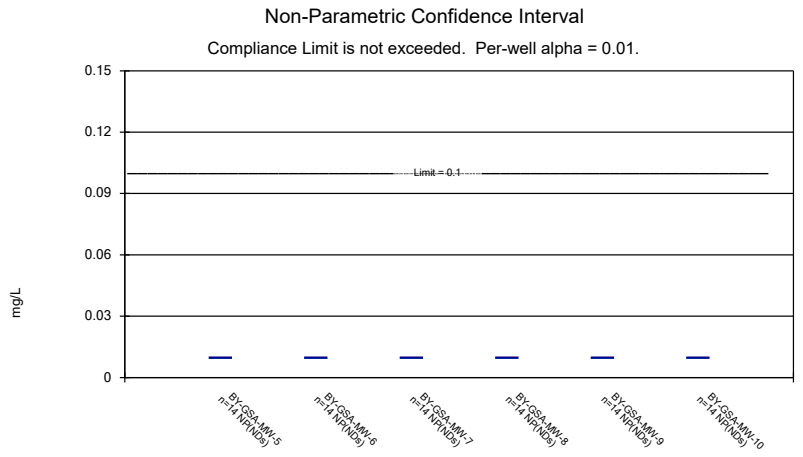
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

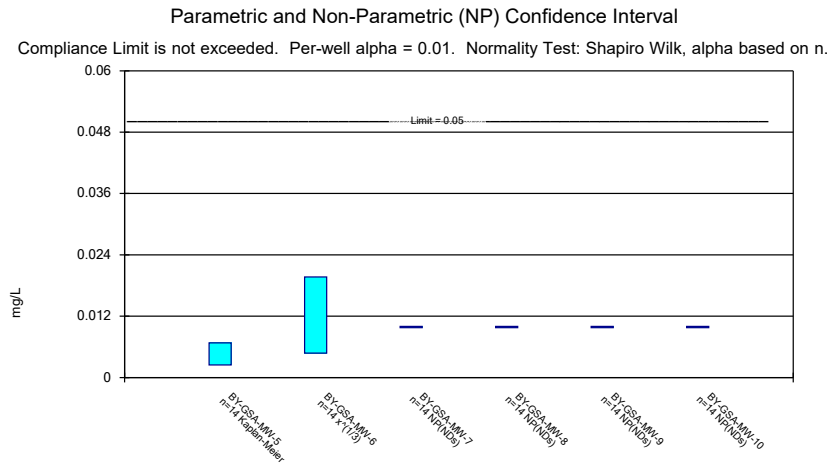
Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



Constituent: Molybdenum Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

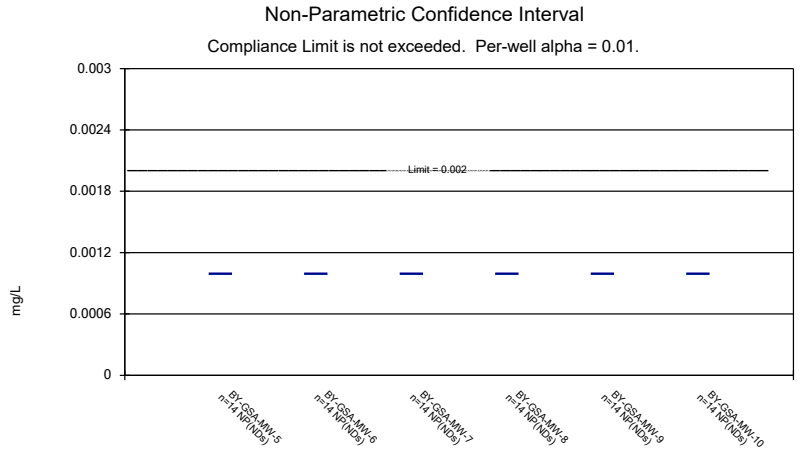
Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



Constituent: Selenium Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

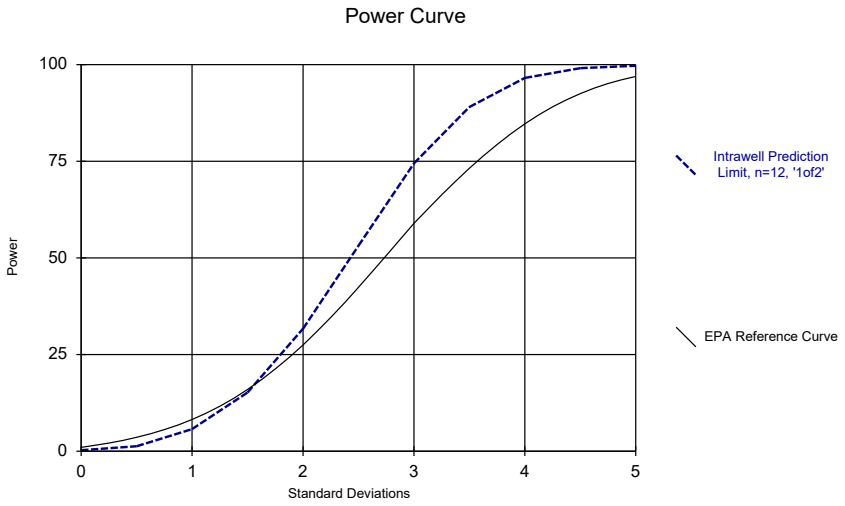
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



Constituent: Thallium Analysis Run 7/24/2020 8:11 AM View: Confidence Intervals

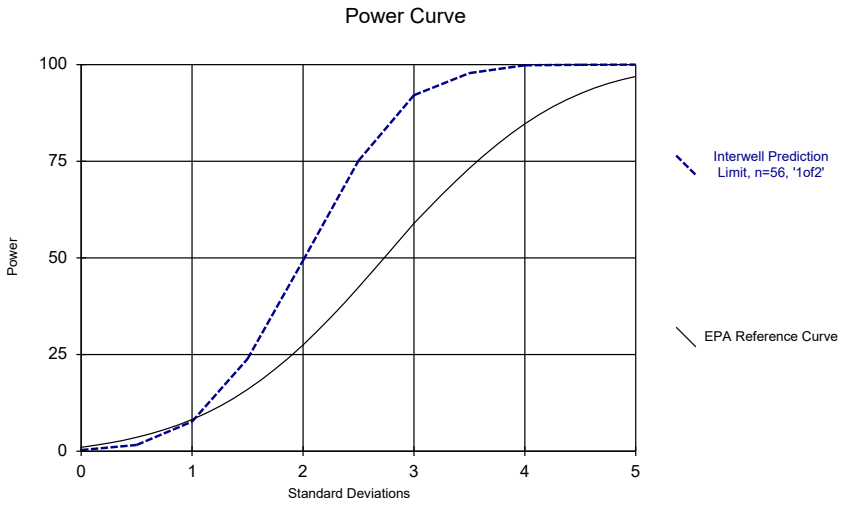
Plant Barry Client: Southern Company Data: Barry Gypsum Pond



Kappa = 2.385, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 7/24/2020 8:17 AM View: Power Curves

Plant Barry Client: Southern Company Data: Barry Gypsum Pond



Kappa = 1.928, based on 7 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 7/24/2020 8:18 AM View: Power Curves

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

2nd
Semi-Annual
Monitoring Event

GROUNDWATER STATS
CONSULTING

November 6, 2020

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Barry Gypsum Pond
2nd Semi-Annual Analysis – September 2020

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 September 2020 2nd 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 from Electric Utilities (CCR Rule, 2015) as well as with the 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-GSA-MW-1, BY-GSA-MW-2, BY-GSA-MW-3, and BY-GSA-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 has been converted from a piezometer to a downgradient monitoring well. Data from this well are included on time series and box plots, but there are not currently enough samples for formal statistics.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Kristina Rayner, Founder and Groundwater Statistician 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 well/constituent pairs with 100% nondetects follows this letter. A substitution of the most recent reporting limit is used for nondetect data.

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 nondetect 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): 11
- # Background Samples (Interwell): 56
- # 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 nondetects, 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% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect 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% nondetects.

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 Summary – Conducted in September 2019

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, are updated by testing for the appropriateness of consolidating new sampling observations with the screened background data. 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 2019 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 (April 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.

Prior to performing prediction limits, proposed background data through May 2019 were reviewed to identify any newly suspected outliers at all wells for chloride and sulfate, and at upgradient wells for boron, calcium, fluoride, pH, and TDS. Both Tukey's Test and visual screening are used to identify potential outliers. When identified, values were flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective. Potential outliers that are identified by Tukey's test but are not greatly different from the rest of the data are not flagged. Also, outliers that are not identified as important by Tukey's test may be identified visually. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. A summary of Tukey's test results for Appendix III parameters was included with the September 2019 screening.

For constituents requiring intrawell prediction limits, the Mann Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through June 2017 to compliance data through May 2019 to evaluate whether the groups are statistically similar at the 99% confidence level, in which case background data may be updated with compliance data. The Mann Whitney test found no statistically significant differences between the two groups. Therefore, all wells were updated with data through May 2019 for construction of intrawell prediction limits for chloride and sulfate.

When the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background are not updated to include the newer data, but will be reconsidered in the future. A summary of these results was included with the Mann Whitney test section in the September 2019 screening.

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data is deselected prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. Statistically significant trends were noted in upgradient wells and a summary of the results was included with the September 2019 screening. These trends required no adjustments at this time, however, because the period of record is short and/or the magnitudes of the trends were low relative to the average concentrations in background.

Evaluation of Appendix III Parameters – September 2020

For Appendix III parameters that are analyzed using pooled upgradient well data through September 2020 to construct interwell prediction limits, background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged. The background date ranges for Appendix III parameters analyzed using intrawell prediction limits include data through May 2019. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of 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 D). 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 there are statistically significant increases (SSIs).

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. Intrawell prediction limits combined with a 1-of-2 verification strategy were constructed for chloride and sulfate (Figure E). Background data for these limits are updated when a minimum of 4 compliance samples are available. This was last performed in September 2019 and the report was submitted at that time.

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

Interwell:

- Boron: BY-GSA-MW-5 and BY-GSA-MW-6
- Calcium: BY-GSA-MW-5 and BY-GSA-MW-6
- pH: BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, and BY-GSA-MW-9
- TDS: BY-GSA-MW-6

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-GSA-MW-2 (upgradient) and BY-GSA-MW-4 (upgradient)
- TDS: BY-GSA-MW-1 (upgradient), BY-GSA-MW-2 (upgradient), and BY-GSA-MW-4 (upgradient)

Decreasing:

- Calcium: BY-GSA-MW-5
- Chloride: BY-GSA-MW-2 (upgradient)
- pH: BY-GSA-MW-2 (upgradient), BY-GSA-MW-3 (upgradient), BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, and BY-GSA-MW-9

Evaluation of Appendix IV Parameters – September 2020

Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis and no new values were flagged as outliers. A summary of previously flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management, the Groundwater Protections Standards (GWPS) utilized during the 2019 2nd semi-annual report were used in the confidence interval analysis for this 2020 2nd semi-annual report. The GWPS will be updated during the 2021 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

First, background limits were determined using tolerance limits constructed from pooled upgradient well data (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. When data followed a normal or transformed-normal distribution, parametric tolerance limits were used to calculate background limits for Appendix IV parameters using pooled upgradient well data through October 2019 with a target of 95% confidence and 95% coverage.

Nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% nondetects. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure H) in the confidence interval comparisons described below. Note that none of the parametric tolerance limits resulted in higher limits than the established MCLs or CCR-Rule Specified Limits. In future UTL calculations, nonparametric tolerance limits will

be used exclusively, as requested by ADEM, to eliminate variation among upgradient well data.

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through September 2020 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 nondetects. Date ranges were set for well/constituent pairs that had more than 8 samples between the dates of 6/6/2017 and 7/15/2020 and a list of those well/constituent pairs follows this report. As mentioned above, well/constituent pairs with 100% nondetects did not require statistics and were, therefore, deselected prior to construction confidence intervals. A list of deselected well/constituent pairs also follows this report. The decision logic, with respect to the use of a parametric or nonparametric confidence intervals, is similar to that used to construct tolerance limits as discussed above. 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

Kristina Rayner
Groundwater Statistician

100% Non-Detects

Analysis Run 11/4/2020 1:09 AM View: AIV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Arsenic (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

Beryllium (mg/L)
BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9

Cadmium (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

Chromium (mg/L)
BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-9

Cobalt (mg/L)
BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9

Lead (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

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

Mercury (mg/L)
BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-9

Molybdenum (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

Selenium (mg/L)
BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9

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

Date Ranges

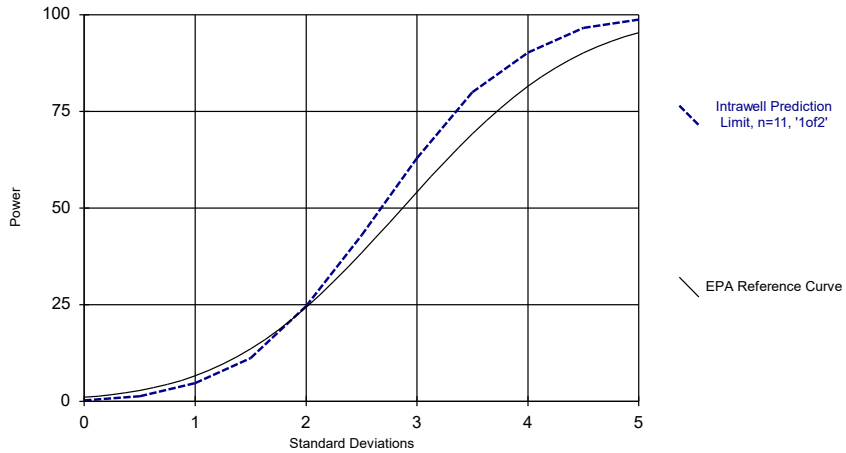
Date: 11/4/2020 2:20 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Fluoride (mg/L)

overall:9/12/2017-9/9/2020

Intrawell Power Curve



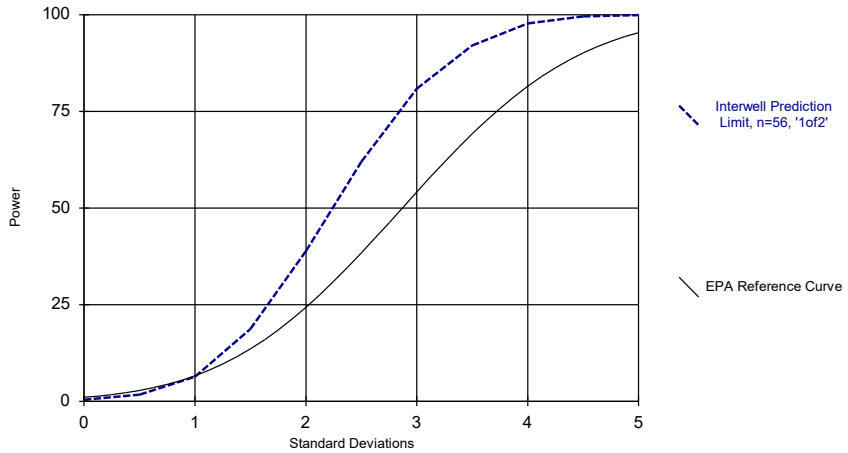
Kappa = 2.17, based on 6 compliance wells and 7 constituents, evaluated annually.

Analysis Run 11/5/2020 11:05 AM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Interwell Power Curve



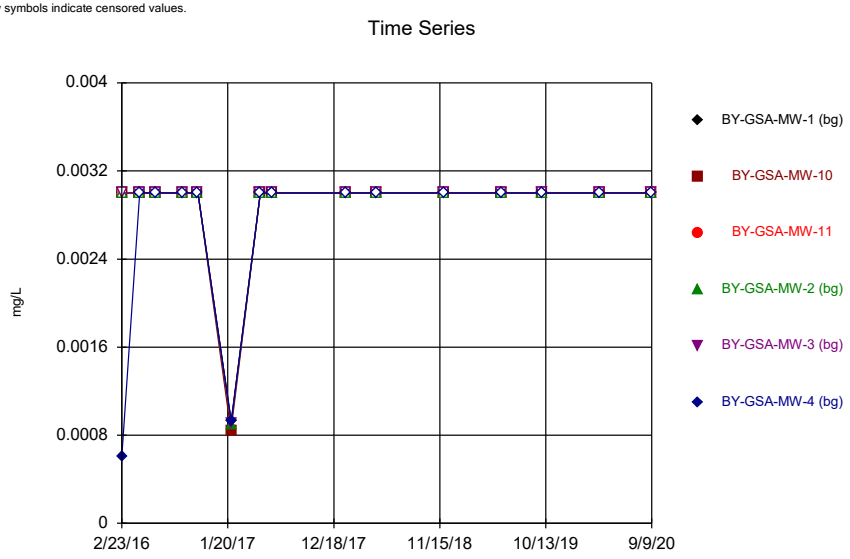
Kappa = 1.708, based on 6 compliance wells and 7 constituents, evaluated annually.

Analysis Run 11/5/2020 11:06 AM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

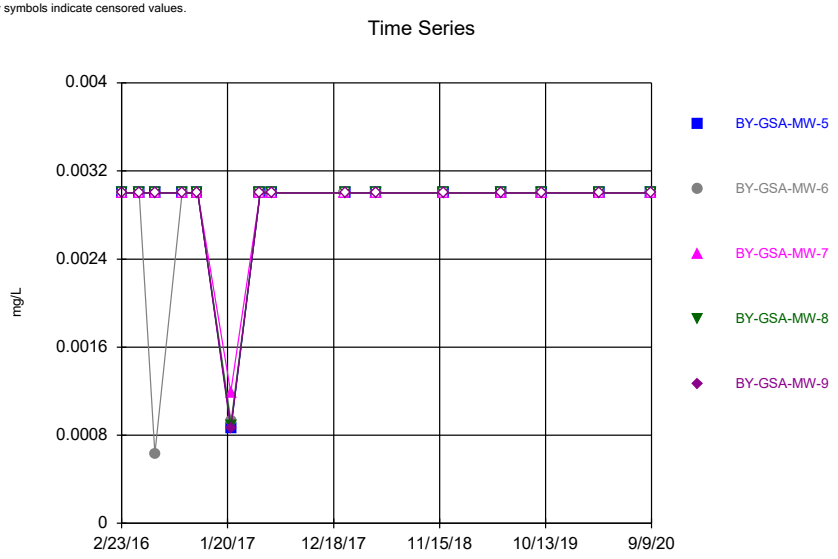
FIGURE A.

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



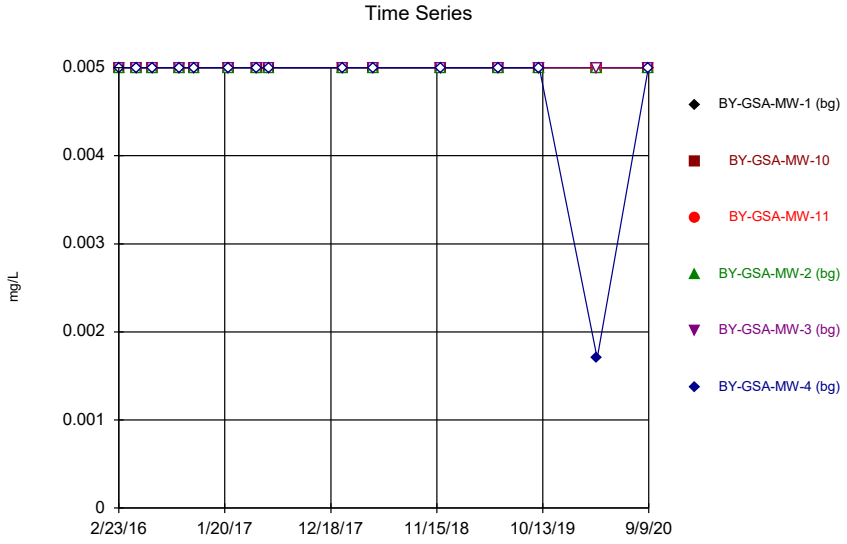
Constituent: Antimony Analysis Run 11/5/2020 10:09 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



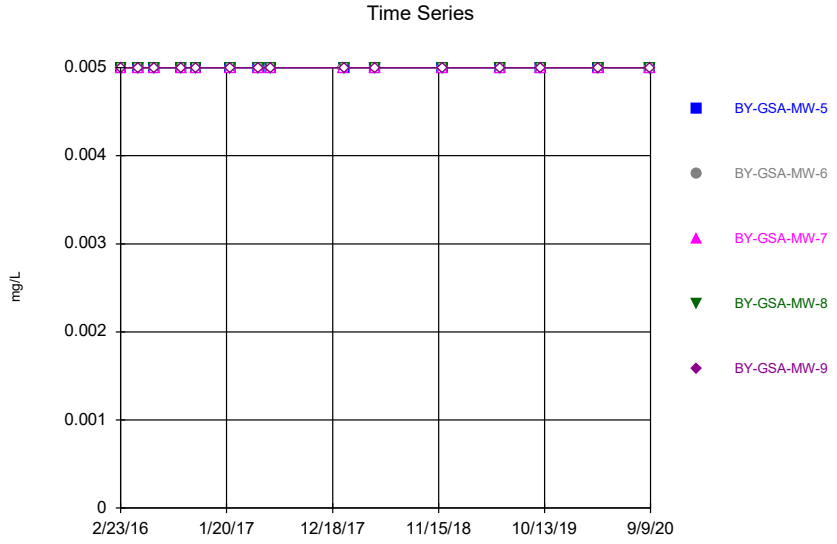
Constituent: Antimony Analysis Run 11/5/2020 10:09 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



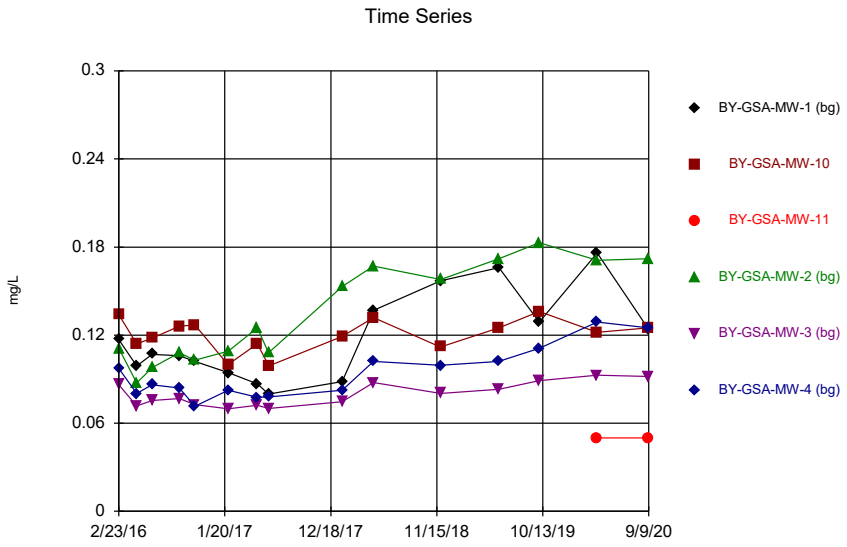
Constituent: Arsenic Analysis Run 11/5/2020 10:09 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Arsenic Analysis Run 11/5/2020 10:09 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

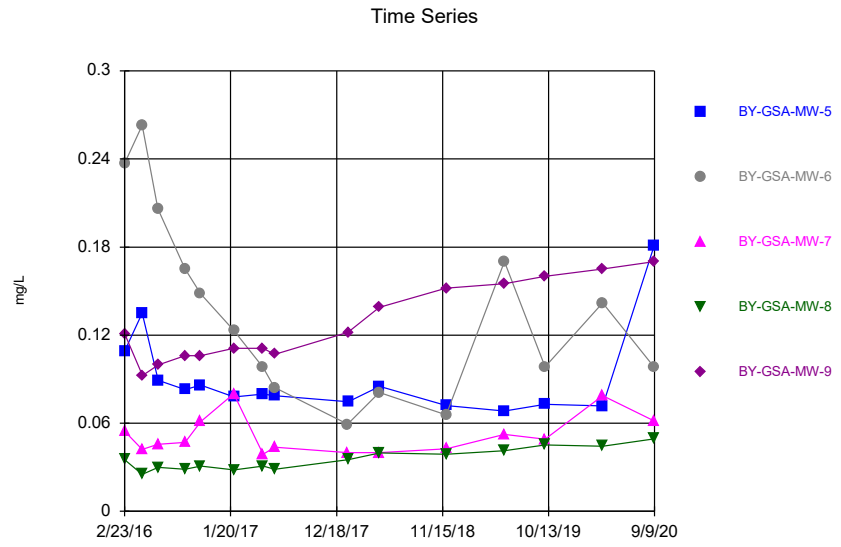
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Barium Analysis Run 11/5/2020 10:09 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

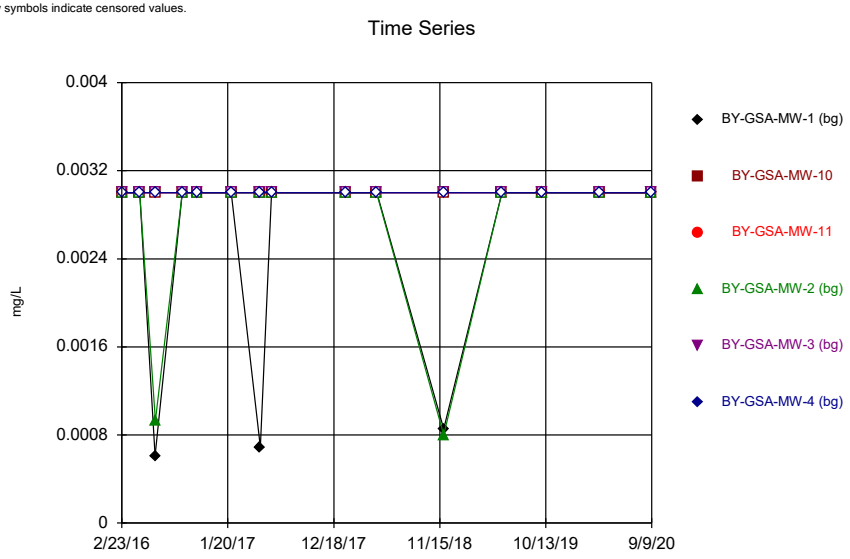
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Barium Analysis Run 11/5/2020 10:09 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

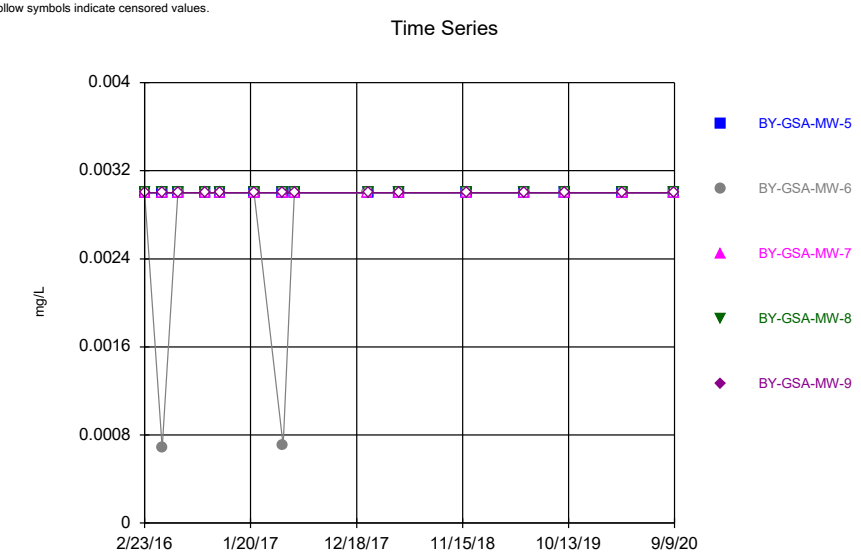
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Beryllium Analysis Run 11/5/2020 10:09 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

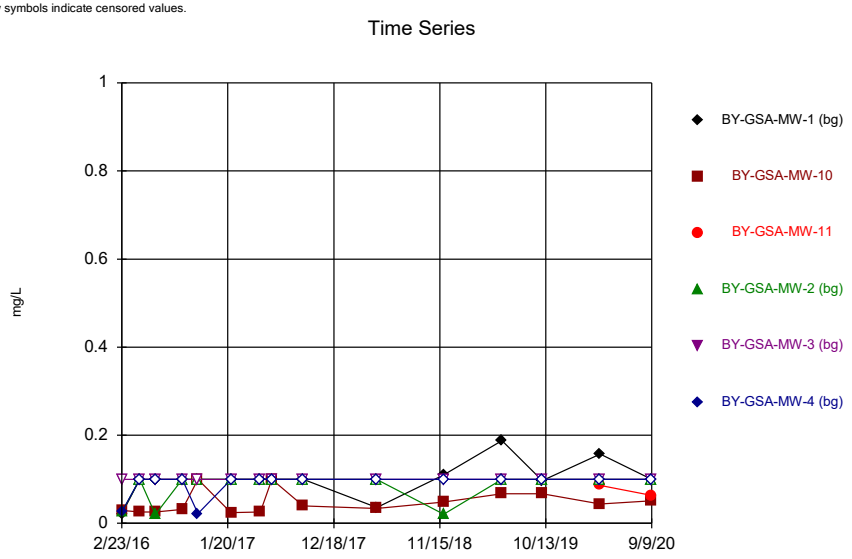
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Beryllium Analysis Run 11/5/2020 10:09 AM

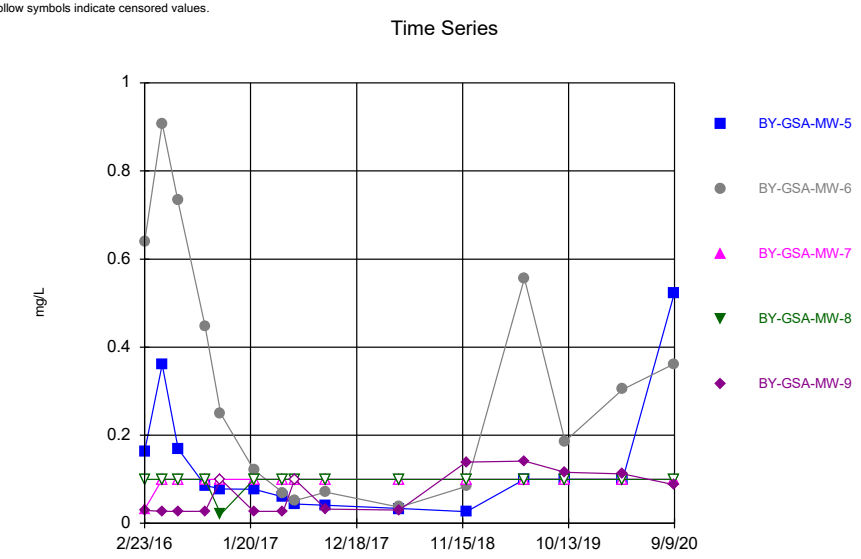
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



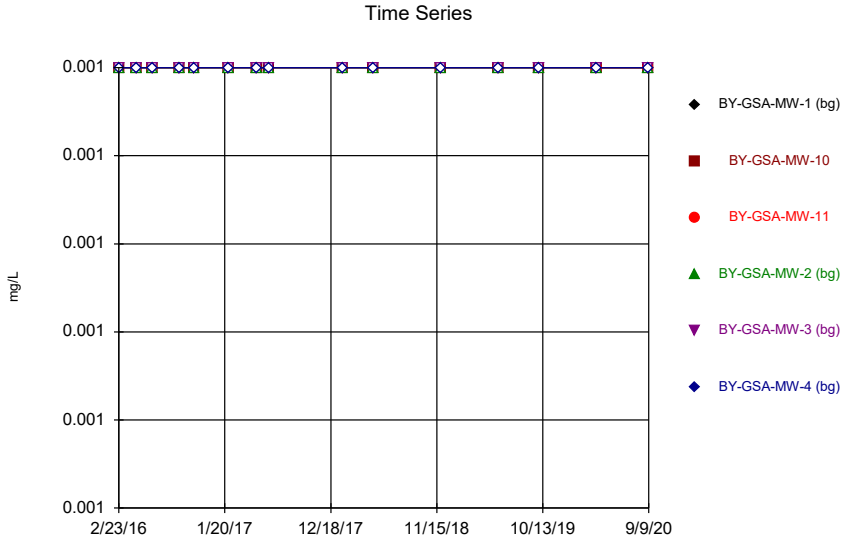
Constituent: Boron, total Analysis Run 11/5/2020 10:09 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



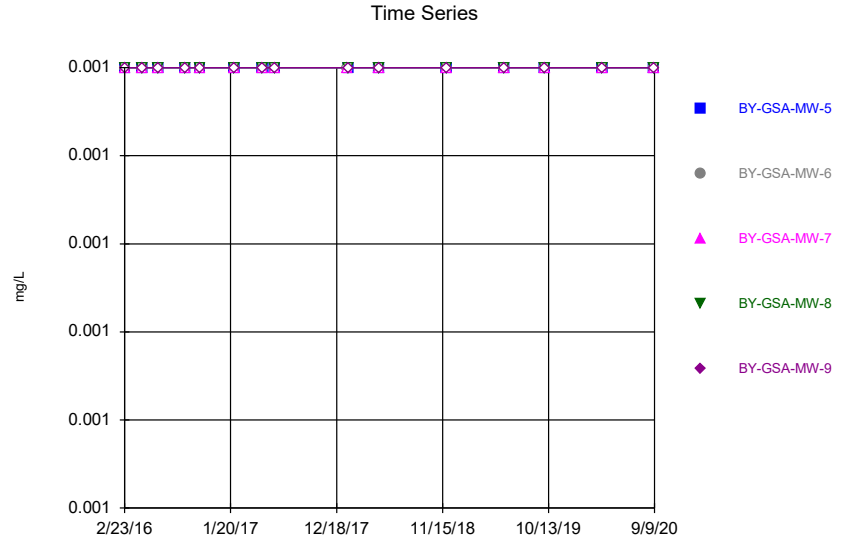
Constituent: Boron, total Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



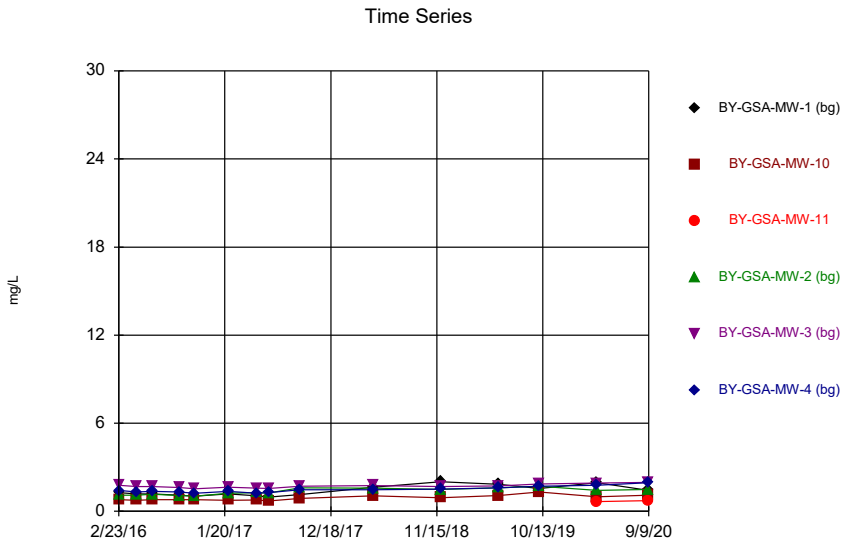
Constituent: Cadmium Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Cadmium Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

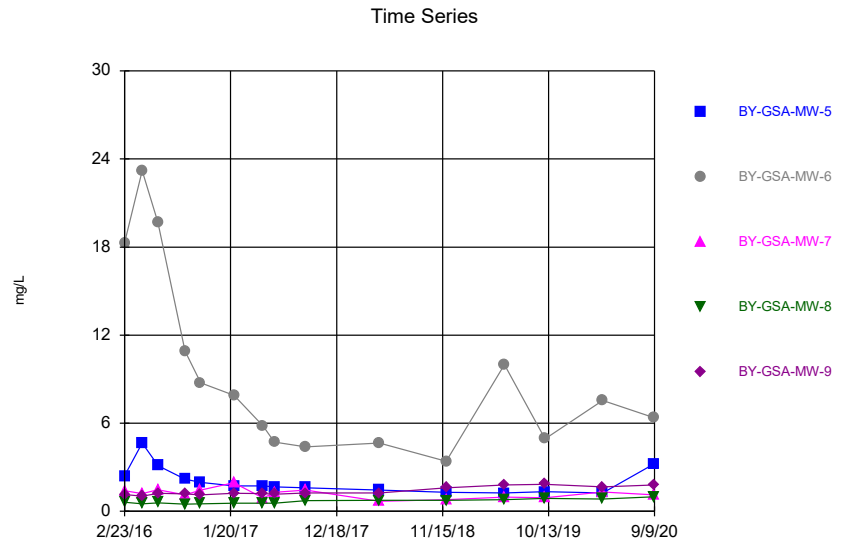
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Calcium, total Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

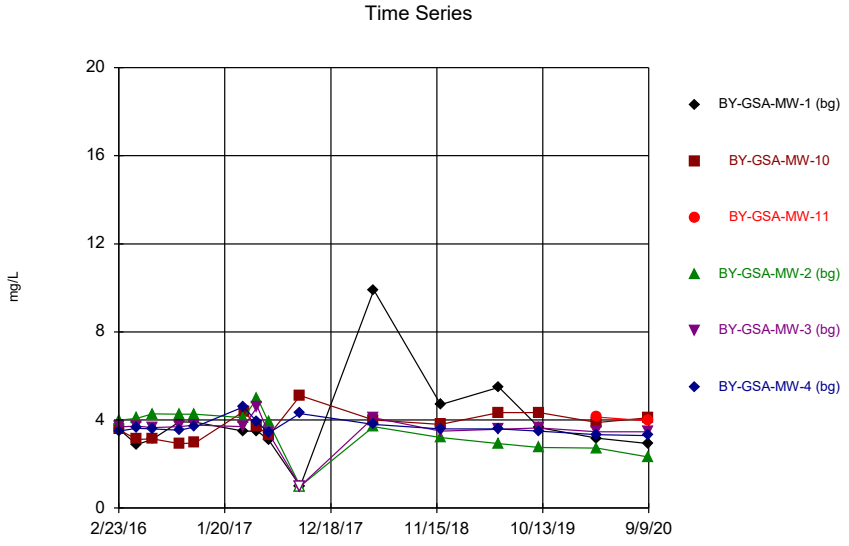
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Calcium, total Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

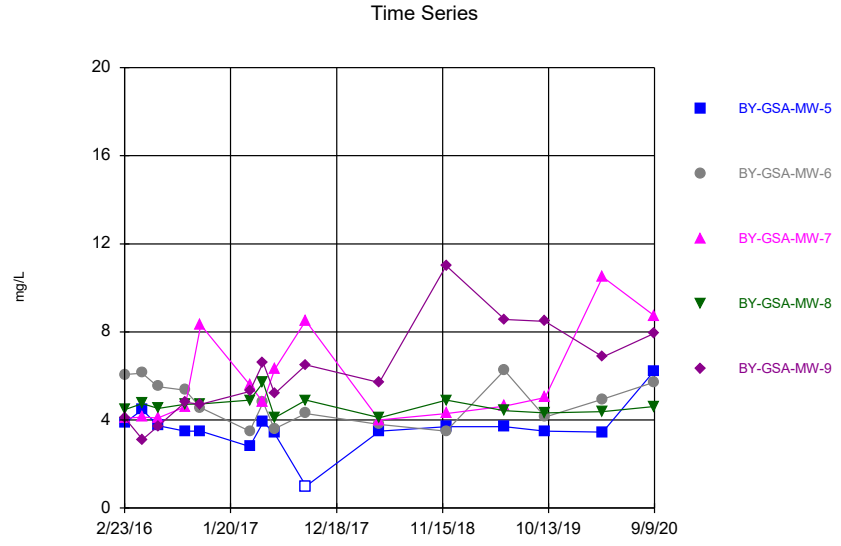
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Chloride, Total Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

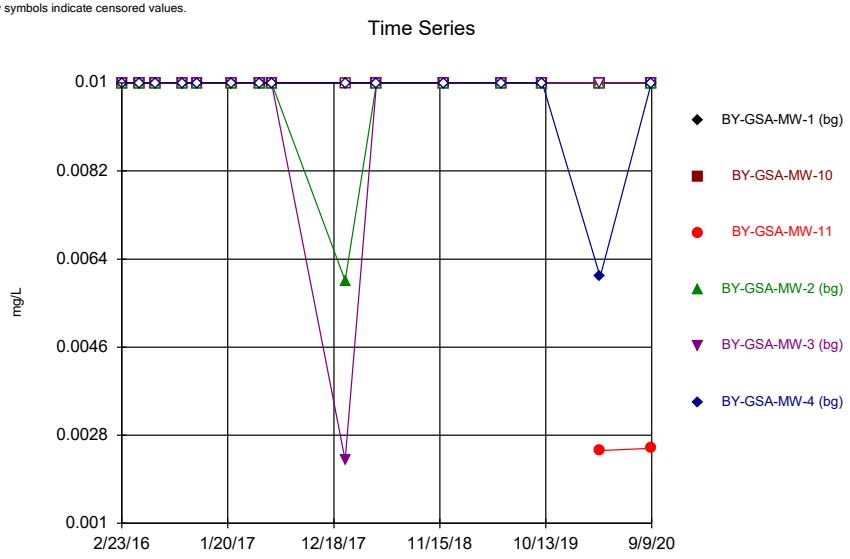
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Chloride, Total Analysis Run 11/5/2020 10:10 AM

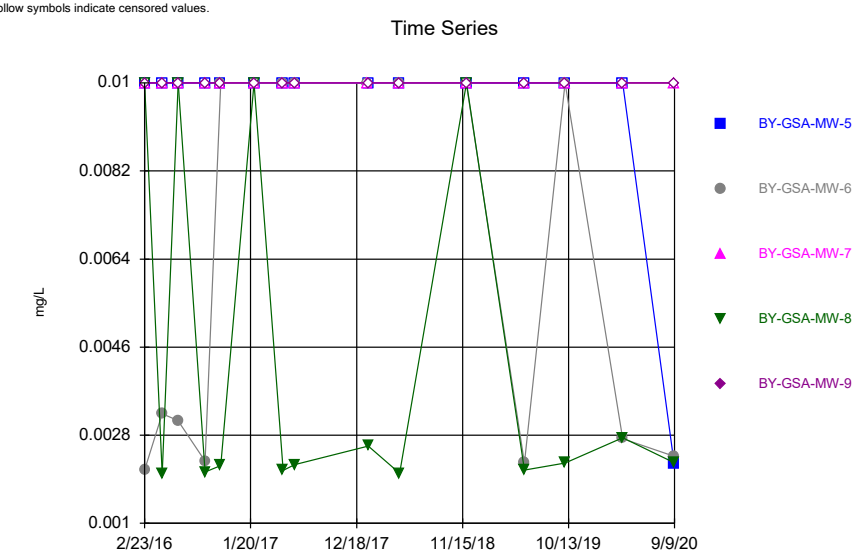
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



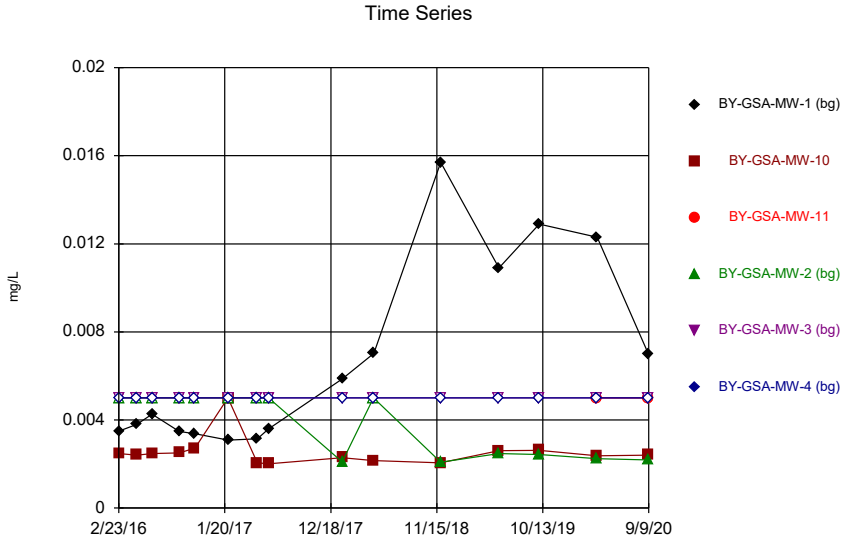
Constituent: Chromium Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



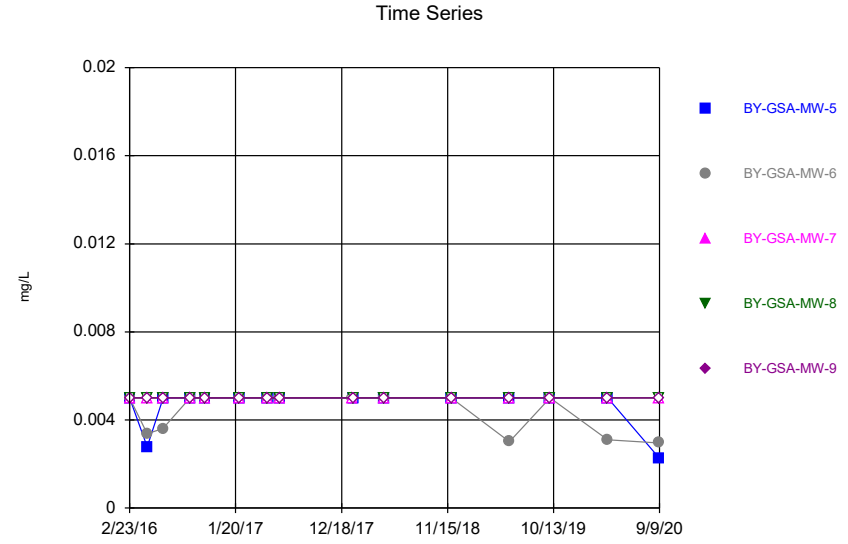
Constituent: Chromium Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



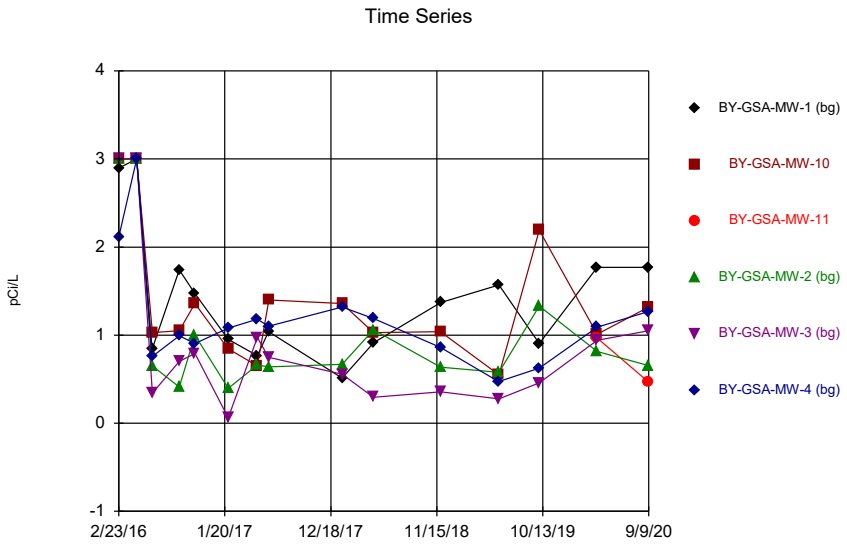
Constituent: Cobalt Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Cobalt Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

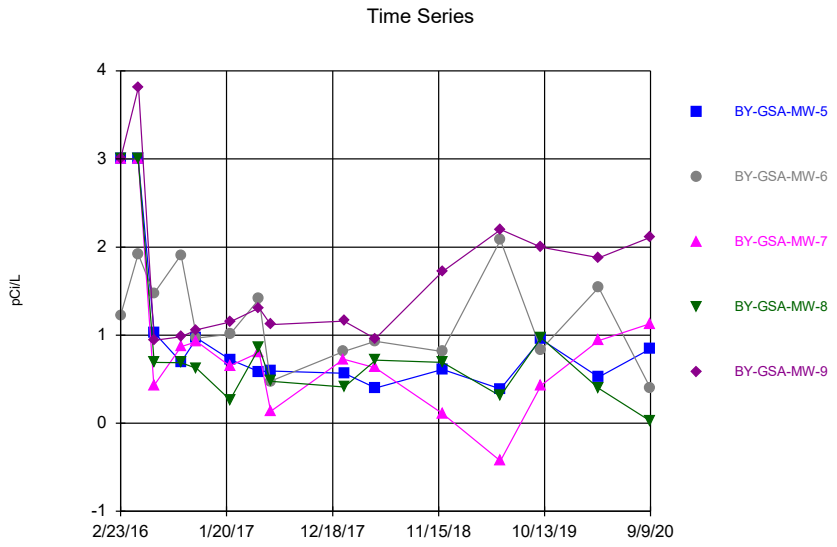
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

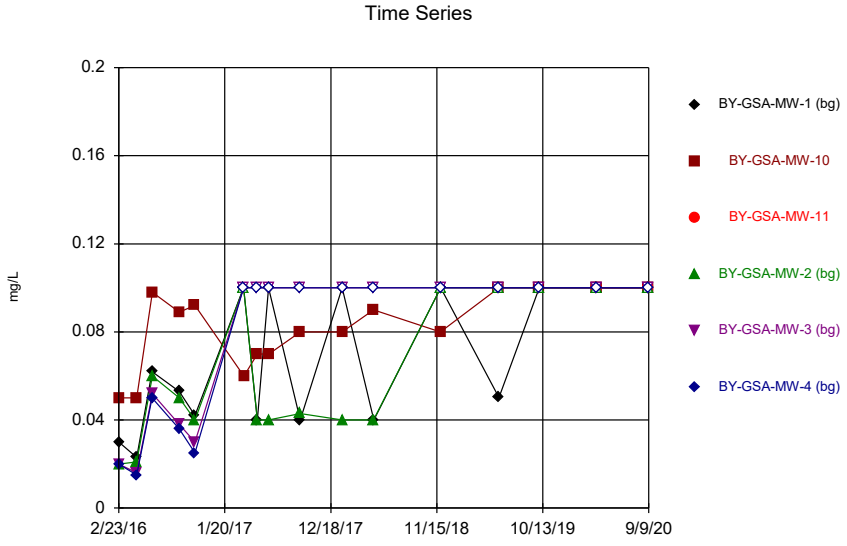
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

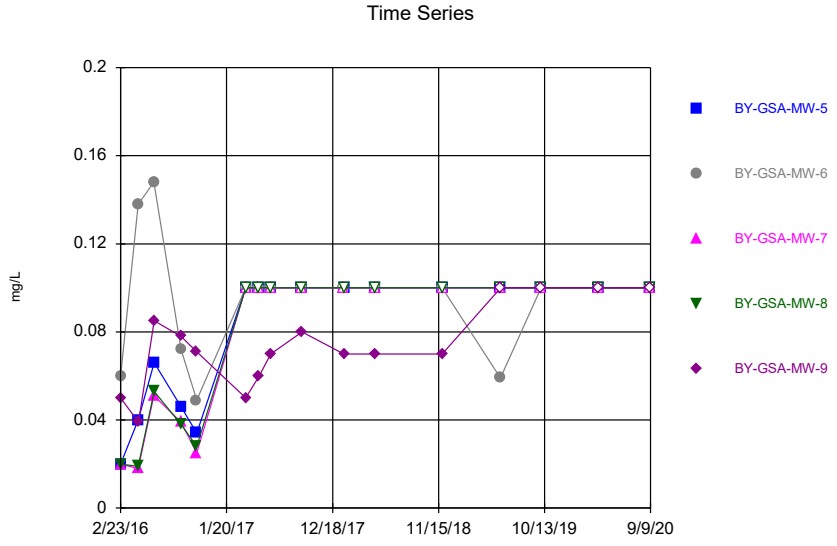
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Fluoride, total Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

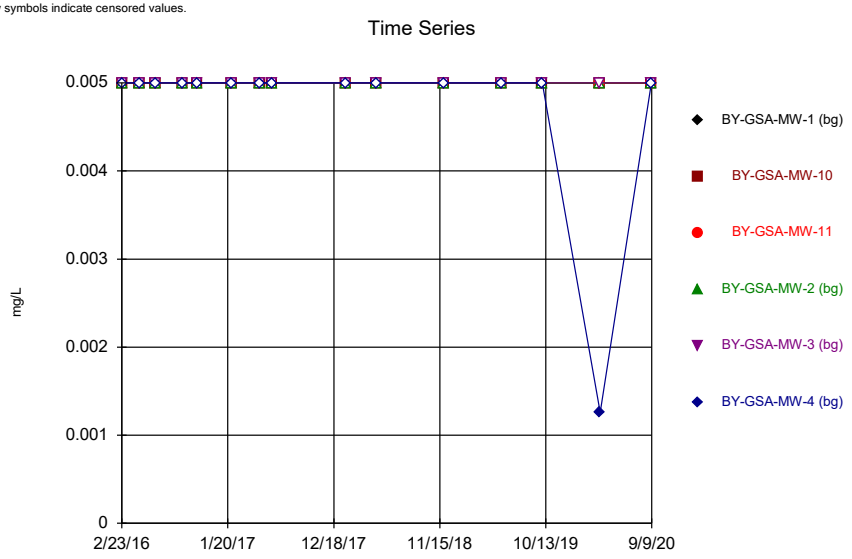
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Fluoride, total Analysis Run 11/5/2020 10:10 AM

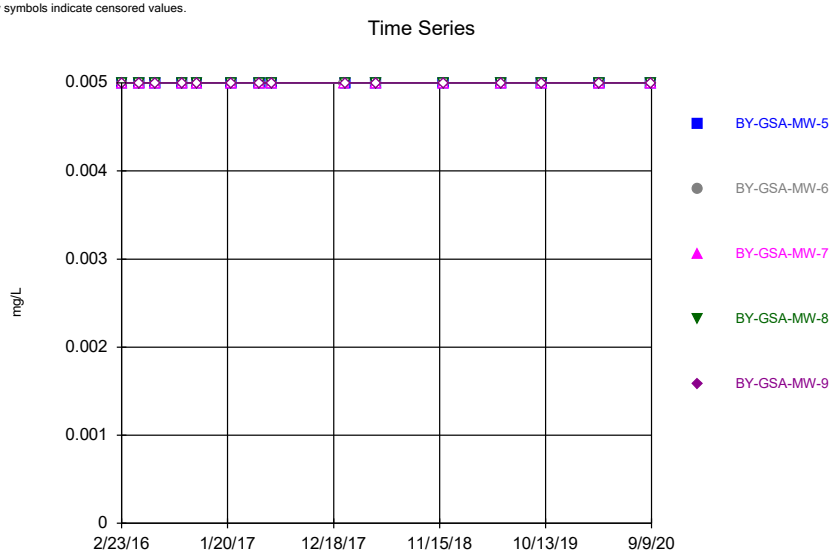
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



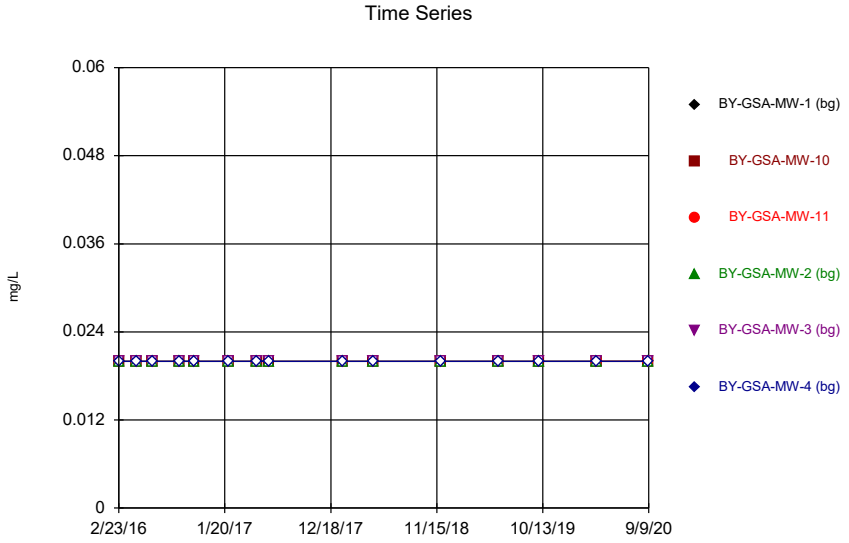
Constituent: Lead Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



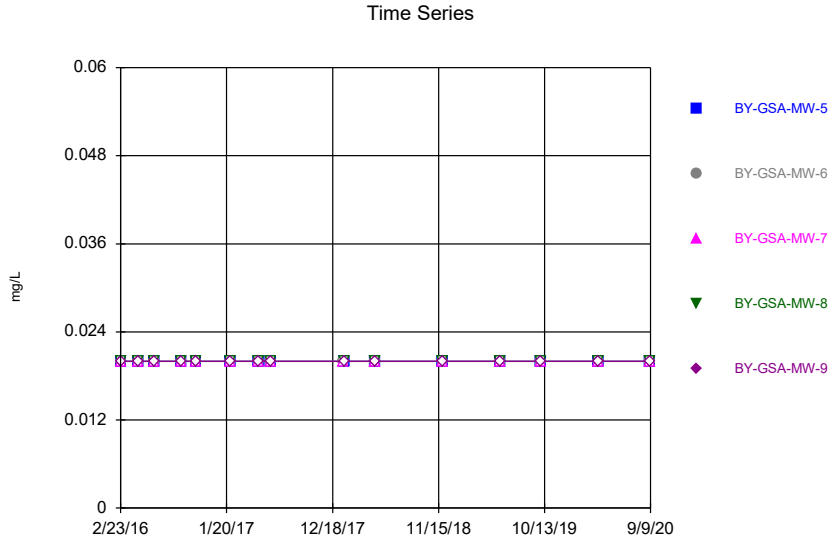
Constituent: Lead Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Lithium Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

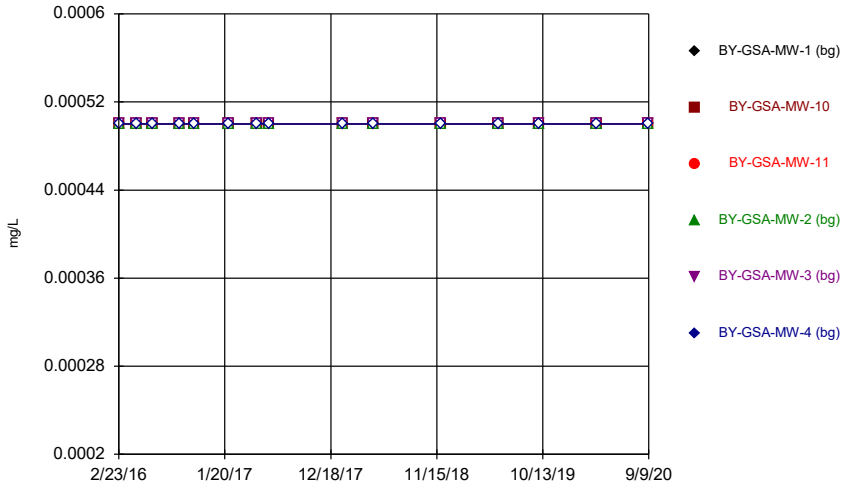
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Lithium Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

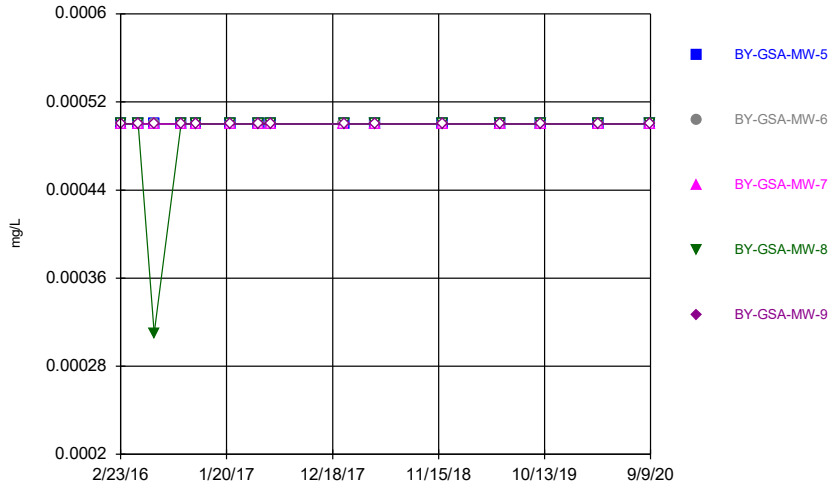
Time Series



Constituent: Mercury Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

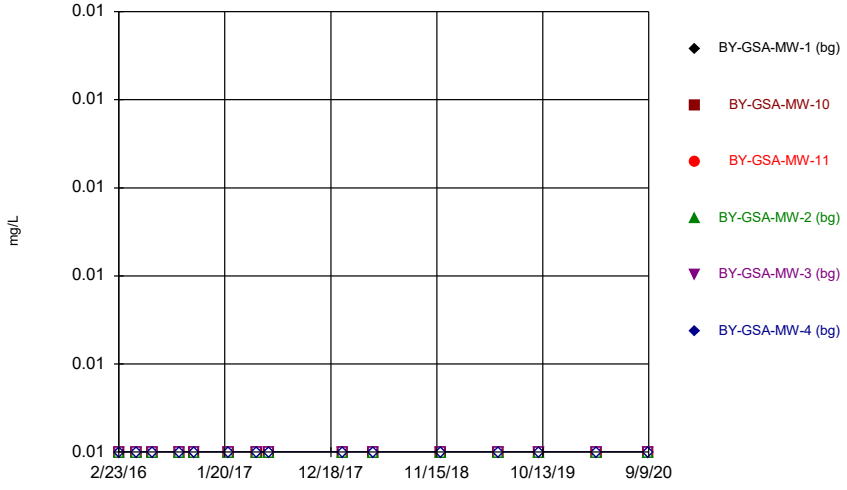
Time Series



Constituent: Mercury Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

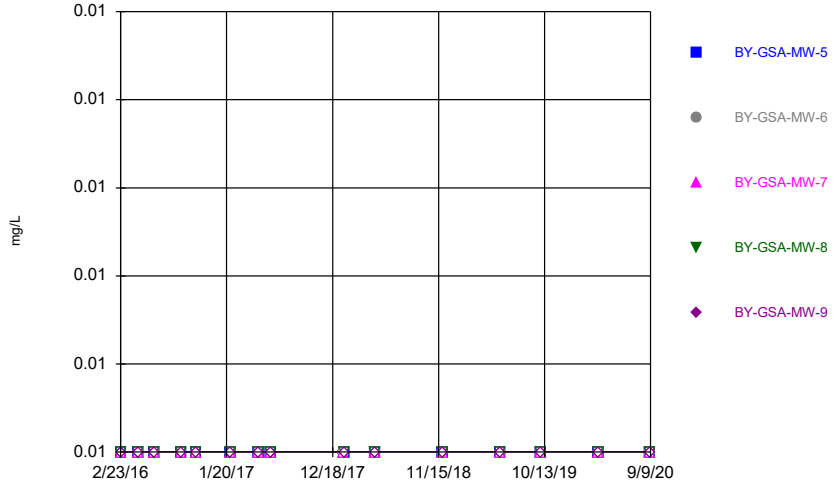
Time Series



Constituent: Molybdenum Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

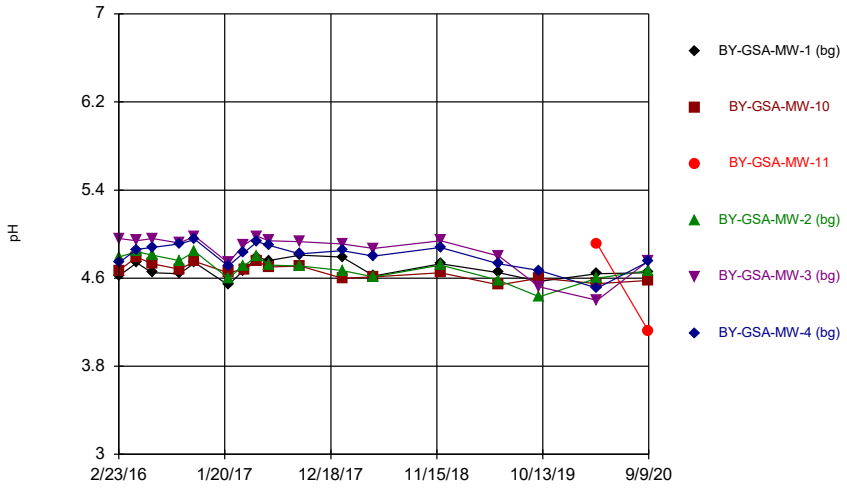
Time Series



Constituent: Molybdenum Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

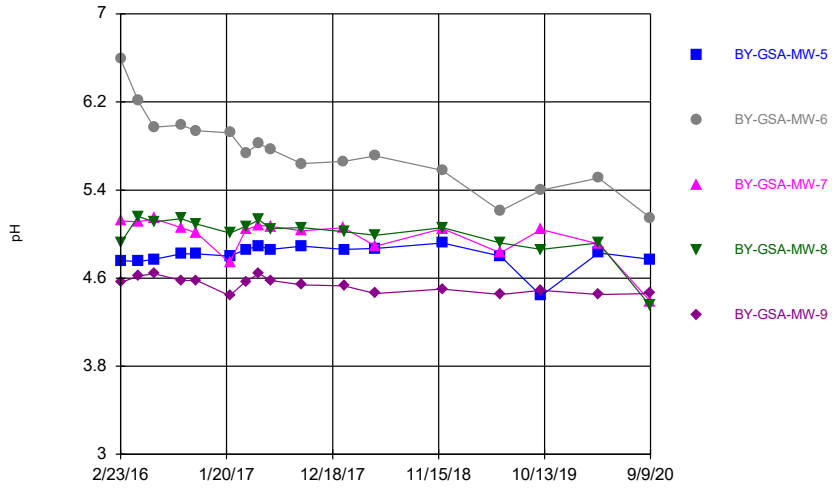


Constituent: pH, Field Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

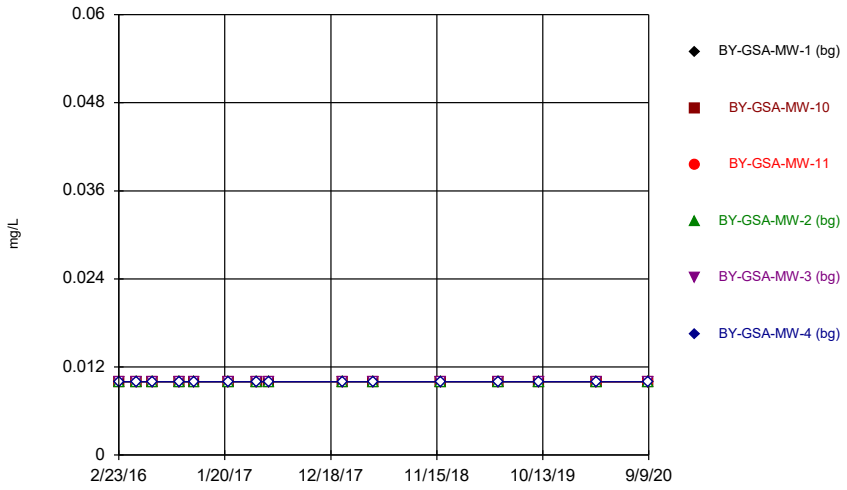


Constituent: pH, Field Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

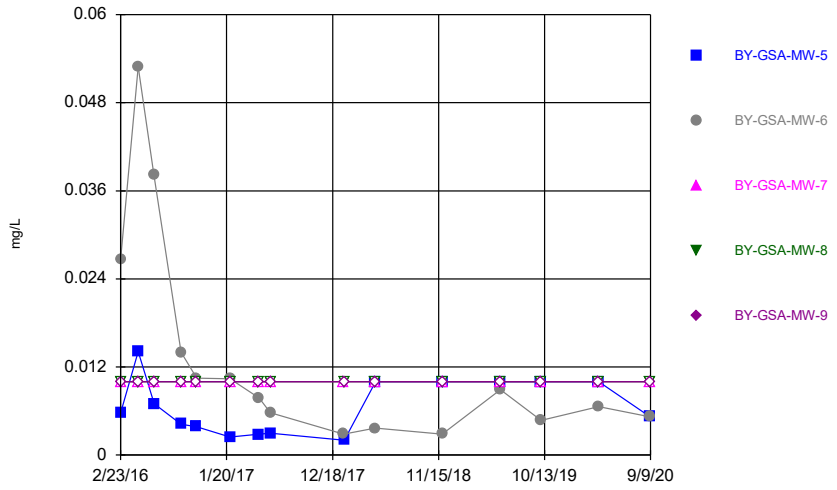


Constituent: Selenium Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

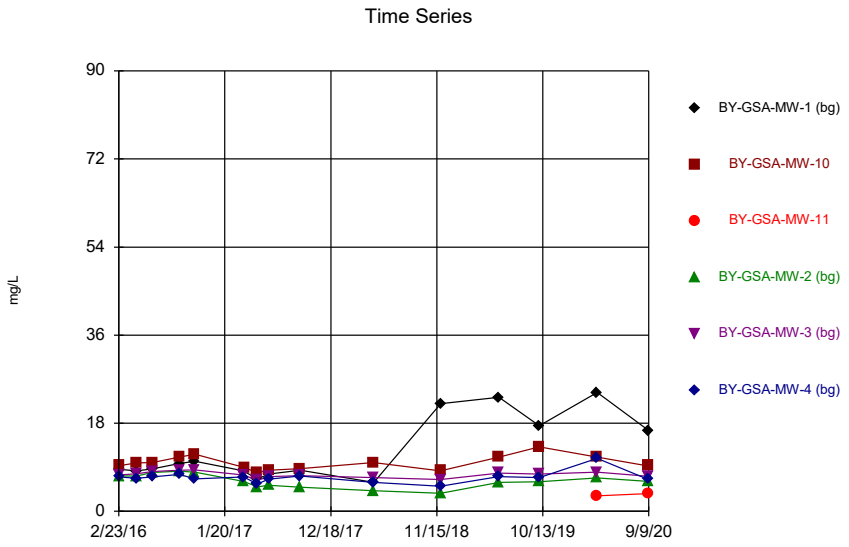
Time Series



Constituent: Selenium Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

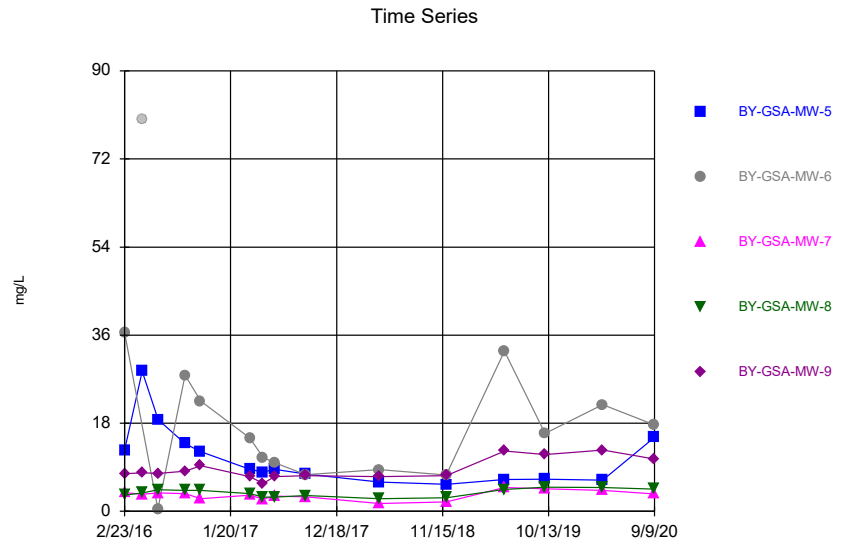
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Sulfate as SO4 Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

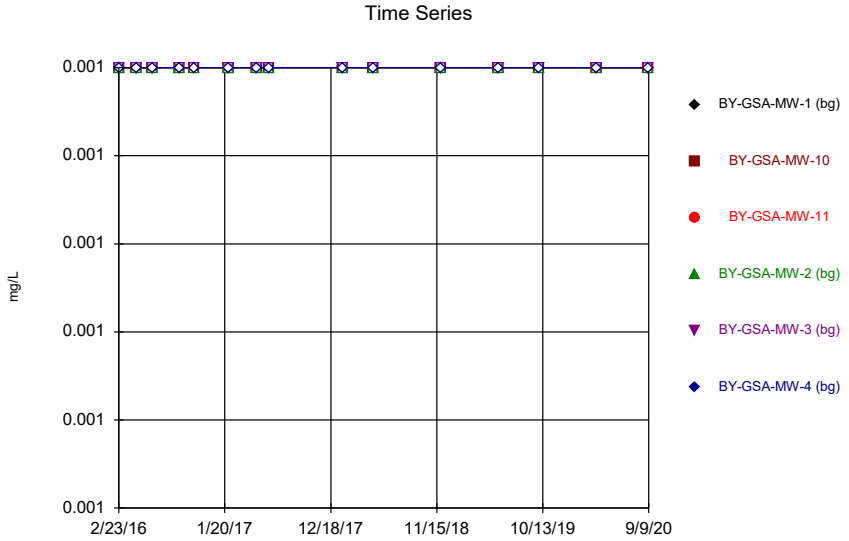
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Sulfate as SO4 Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

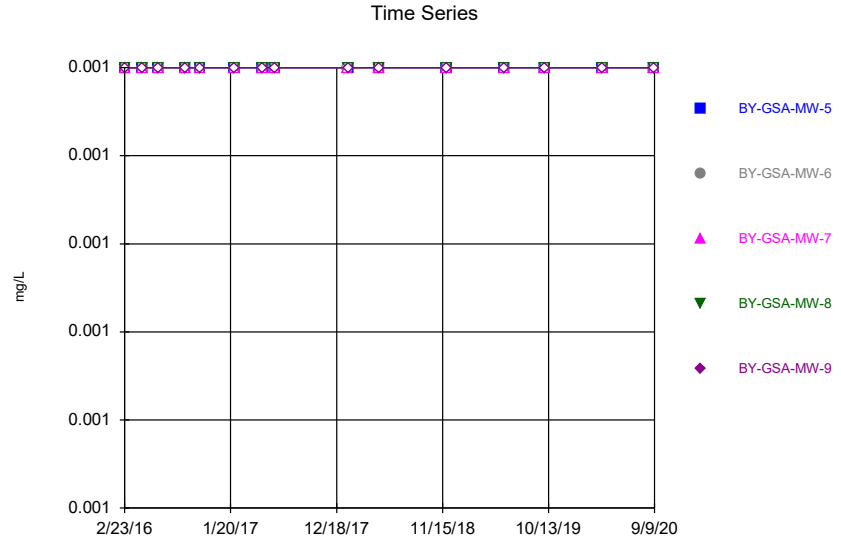
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 11/5/2020 10:10 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

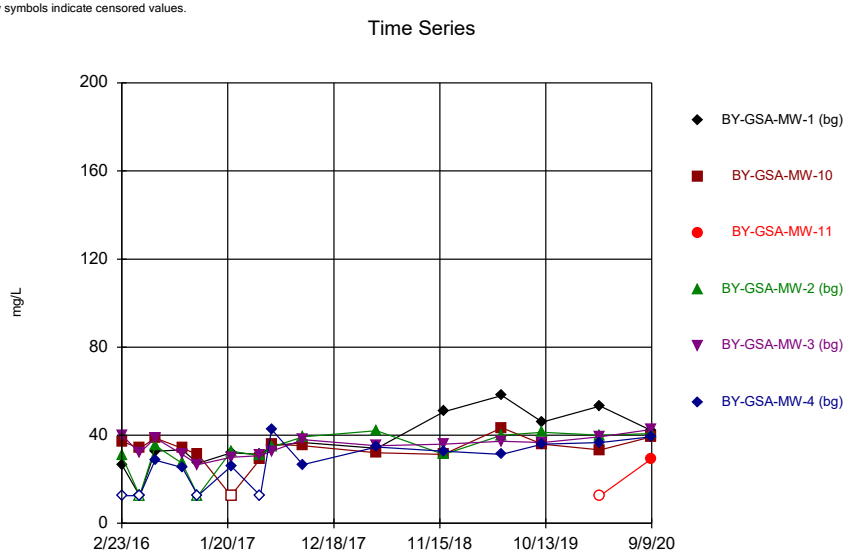
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 11/5/2020 10:10 AM

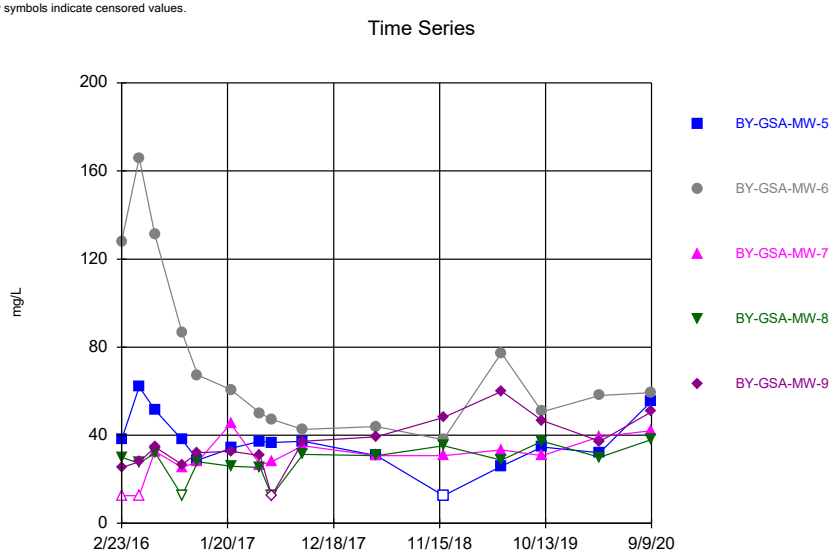
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Total Dissolved Solids Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



Constituent: Total Dissolved Solids Analysis Run 11/5/2020 10:10 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.003	<0.003		<0.003	<0.003	0.000606 (J)
4/19/2016	<0.003	<0.003		<0.003	<0.003	<0.003
6/6/2016	<0.003					<0.003
6/7/2016		<0.003		<0.003	<0.003	
8/30/2016	<0.003	<0.003		<0.003	<0.003	<0.003
10/18/2016	<0.003	<0.003		<0.003	<0.003	<0.003
1/30/2017		0.000838 (J)				
1/31/2017	0.000925 (J)			0.000898 (J)	0.000911 (J)	0.000928 (J)
5/2/2017	<0.003	<0.003		<0.003	<0.003	<0.003
6/6/2017	<0.003			<0.003	<0.003	<0.003
6/7/2017		<0.003				
1/23/2018	<0.003	<0.003		<0.003	<0.003	<0.003
5/1/2018		<0.003		<0.003	<0.003	<0.003
5/2/2018	<0.003					
11/26/2018		<0.003				<0.003
11/27/2018	<0.003			<0.003	<0.003	
5/28/2019						<0.003
5/29/2019	<0.003	<0.003		<0.003	<0.003	
10/2/2019	<0.003	<0.003		<0.003	<0.003	<0.003
3/31/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/8/2020			<0.003			<0.003
9/9/2020	<0.003	<0.003		<0.003	<0.003	

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.003	<0.003	<0.003	<0.003	<0.003
4/18/2016	<0.003	<0.003	<0.003	<0.003	
4/19/2016					<0.003
6/6/2016		0.000633 (J)	<0.003		
6/7/2016	<0.003			<0.003	<0.003
8/30/2016	<0.003	<0.003	<0.003	<0.003	<0.003
10/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003
1/30/2017			0.00119 (J)		0.000859 (J)
1/31/2017	0.000866 (J)	0.000926 (J)		0.000885 (J)	
5/2/2017	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2017	<0.003	<0.003			
6/7/2017			<0.003	<0.003	<0.003
1/22/2018		<0.003	<0.003		
1/23/2018					<0.003
1/24/2018	<0.003			<0.003	
5/1/2018		<0.003	<0.003		<0.003
5/2/2018	<0.003			<0.003	
11/26/2018		<0.003			<0.003
11/27/2018	<0.003		<0.003	<0.003	
5/28/2019	<0.003	<0.003	<0.003	<0.003	
5/29/2019					<0.003
10/2/2019	<0.003	<0.003	<0.003	<0.003	<0.003
3/30/2020	<0.003	<0.003	<0.003	<0.003	
3/31/2020					<0.003
9/8/2020	<0.003	<0.003	<0.003	<0.003	
9/9/2020					<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.005	<0.005		<0.005	<0.005	<0.005
4/19/2016	<0.005	<0.005		<0.005	<0.005	<0.005
6/6/2016	<0.005					<0.005
6/7/2016		<0.005		<0.005	<0.005	
8/30/2016	<0.005	<0.005		<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005		<0.005	<0.005	<0.005
1/30/2017		<0.005				
1/31/2017	<0.005			<0.005	<0.005	<0.005
5/2/2017	<0.005	<0.005		<0.005	<0.005	<0.005
6/6/2017	<0.005			<0.005	<0.005	<0.005
6/7/2017		<0.005				
1/23/2018	<0.005	<0.005		<0.005	<0.005	<0.005
5/1/2018		<0.005		<0.005	<0.005	<0.005
5/2/2018	<0.005					
11/26/2018		<0.005				<0.005
11/27/2018	<0.005			<0.005	<0.005	
5/28/2019						<0.005
5/29/2019	<0.005	<0.005		<0.005	<0.005	
10/2/2019	<0.005	<0.005		<0.005	<0.005	<0.005
3/31/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.0017 (J)
9/8/2020			<0.005			<0.005
9/9/2020	<0.005	<0.005		<0.005	<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2016	<0.005	<0.005	<0.005	<0.005	
4/19/2016					<0.005
6/6/2016		<0.005	<0.005		
6/7/2016	<0.005			<0.005	<0.005
8/30/2016	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017			<0.005		<0.005
1/31/2017	<0.005	<0.005		<0.005	
5/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005			
6/7/2017			<0.005	<0.005	<0.005
1/22/2018		<0.005	<0.005		
1/23/2018					<0.005
1/24/2018	<0.005			<0.005	
5/1/2018		<0.005	<0.005		<0.005
5/2/2018	<0.005			<0.005	
11/26/2018		<0.005			<0.005
11/27/2018	<0.005		<0.005	<0.005	
5/28/2019	<0.005	<0.005	<0.005	<0.005	
5/29/2019					<0.005
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.005
3/30/2020	<0.005	<0.005	<0.005	<0.005	
3/31/2020					<0.005
9/8/2020	<0.005	<0.005	<0.005	<0.005	
9/9/2020					<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	0.117	0.134		0.111	0.0862	0.0973
4/19/2016	0.099	0.114		0.0875	0.0718	0.0802
6/6/2016	0.107					0.0862
6/7/2016		0.118		0.0979	0.0754	
8/30/2016	0.106	0.126		0.108	0.0768	0.0841
10/18/2016	0.102	0.127		0.103	0.0727	0.0715
1/30/2017		0.1				
1/31/2017	0.0944			0.109	0.0698	0.0825
5/2/2017	0.0868	0.114		0.125	0.0723	0.0777
6/6/2017	0.0799			0.108	0.07	0.078
6/7/2017		0.0991				
1/23/2018	0.0884	0.119		0.153	0.0747	0.0825
5/1/2018		0.132		0.167	0.0877	0.102
5/2/2018	0.137					
11/26/2018		0.112				0.0994
11/27/2018	0.157			0.158	0.0804	
5/28/2019						0.102
5/29/2019	0.166	0.125		0.172	0.0831	
10/2/2019	0.129	0.136		0.183	0.089	0.111
3/31/2020	0.176	0.122	0.0499	0.171	0.0927	0.129
9/8/2020			0.05			0.125
9/9/2020	0.124	0.125		0.172	0.0919	

Time Series

Constituent: Barium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.109	0.237	0.0546	0.0352	0.121
4/18/2016	0.135	0.263	0.0421	0.0251	
4/19/2016					0.0926
6/6/2016		0.206	0.0457		
6/7/2016	0.0892			0.0299	0.0998
8/30/2016	0.083	0.165	0.0469	0.0287	0.106
10/18/2016	0.0859	0.148	0.0611	0.0309	0.106
1/30/2017			0.0801		0.111
1/31/2017	0.0779	0.123		0.0282	
5/2/2017	0.0799	0.098	0.0388	0.0309	0.111
6/6/2017	0.0788	0.0844			
6/7/2017			0.0437	0.0287	0.107
1/22/2018		0.0593	0.0399		
1/23/2018					0.122
1/24/2018	0.0746			0.0351	
5/1/2018		0.081	0.04		0.139
5/2/2018	0.085			0.0398	
11/26/2018		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					0.155
10/2/2019	0.0728	0.0985	0.0492	0.0453	0.16
3/30/2020	0.0718	0.142	0.0788	0.0444	
3/31/2020					0.165
9/8/2020	0.181	0.0981	0.0615	0.0494	
9/9/2020					0.17

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.003	<0.003		<0.003	<0.003	<0.003
4/19/2016	<0.003	<0.003		<0.003	<0.003	<0.003
6/6/2016	0.000612 (J)					<0.003
6/7/2016		<0.003		0.00093 (J)	<0.003	
8/30/2016	<0.003	<0.003		<0.003	<0.003	<0.003
10/18/2016	<0.003	<0.003		<0.003	<0.003	<0.003
1/30/2017		<0.003				
1/31/2017	<0.003			<0.003	<0.003	<0.003
5/2/2017	0.00069 (J)	<0.003		<0.003	<0.003	<0.003
6/6/2017	<0.003			<0.003	<0.003	<0.003
6/7/2017		<0.003				
1/23/2018	<0.003	<0.003		<0.003	<0.003	<0.003
5/1/2018		<0.003		<0.003	<0.003	<0.003
5/2/2018	<0.003					
11/26/2018		<0.003				<0.003
11/27/2018	0.000856 (J)			0.000801 (J)	<0.003	
5/28/2019						<0.003
5/29/2019	<0.003	<0.003		<0.003	<0.003	
10/2/2019	<0.003	<0.003		<0.003	<0.003	<0.003
3/31/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/8/2020			<0.003			<0.003
9/9/2020	<0.003	<0.003		<0.003	<0.003	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.003	<0.003	<0.003	<0.003	<0.003
4/18/2016	<0.003	0.000681 (J)	<0.003	<0.003	
4/19/2016					<0.003
6/6/2016		<0.003	<0.003		
6/7/2016	<0.003			<0.003	<0.003
8/30/2016	<0.003	<0.003	<0.003	<0.003	<0.003
10/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003
1/30/2017			<0.003		<0.003
1/31/2017	<0.003	<0.003		<0.003	
5/2/2017	<0.003	0.000704 (J)	<0.003	<0.003	<0.003
6/6/2017	<0.003	<0.003			
6/7/2017			<0.003	<0.003	<0.003
1/22/2018		<0.003	<0.003		
1/23/2018					<0.003
1/24/2018	<0.003			<0.003	
5/1/2018		<0.003	<0.003		<0.003
5/2/2018	<0.003			<0.003	
11/26/2018		<0.003			<0.003
11/27/2018	<0.003		<0.003	<0.003	
5/28/2019	<0.003	<0.003	<0.003	<0.003	
5/29/2019					<0.003
10/2/2019	<0.003	<0.003	<0.003	<0.003	<0.003
3/30/2020	<0.003	<0.003	<0.003	<0.003	
3/31/2020					<0.003
9/8/2020	<0.003	<0.003	<0.003	<0.003	
9/9/2020					<0.003

Time Series

Constituent: Boron, total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	0.0212 (J)	0.0294 (J)		0.0252 (J)	<0.1	0.0257 (J)
4/19/2016	<0.1	0.0257 (J)		<0.1	<0.1	<0.1
6/6/2016	<0.1					<0.1
6/7/2016		0.0257 (J)		0.0202 (J)	<0.1	
8/30/2016	<0.1	0.0317 (J)		<0.1	<0.1	<0.1
10/18/2016	<0.1	<0.1		<0.1	<0.1	0.022 (J)
1/30/2017		0.0243 (J)				
1/31/2017	<0.1			<0.1	<0.1	<0.1
5/2/2017	<0.1	0.0259 (J)		<0.1	<0.1	<0.1
6/6/2017	<0.1			<0.1	<0.1	<0.1
6/7/2017		<0.1				
9/12/2017						<0.1
9/13/2017	<0.1	0.0394 (J)		<0.1	<0.1	
5/1/2018		0.0338 (J)		<0.1	<0.1	<0.1
5/2/2018	0.0362 (J)					
11/26/2018		0.0484 (J)				<0.1
11/27/2018	0.11			0.0207 (J)	<0.1	
5/28/2019						<0.1
5/29/2019	0.188	0.0669 (J)		<0.1	<0.1	
10/2/2019	0.097 (J)	0.0671 (J)		<0.1	<0.1	<0.1
3/31/2020	0.157	0.0442 (J)	0.0864 (J)	<0.1	<0.1	<0.1
9/8/2020			0.0638 (J)			<0.1
9/9/2020	0.0999 (J)	0.0509 (J)		<0.1	<0.1	

Time Series

Constituent: Boron, total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.163	0.638	0.0314 (J)	<0.1	0.0297 (J)
4/18/2016	0.361	0.908	<0.1	<0.1	
4/19/2016					0.0269 (J)
6/6/2016		0.733	<0.1		
6/7/2016	0.169			<0.1	0.0271 (J)
8/30/2016	0.0858 (J)	0.448	<0.1	<0.1	0.0272 (J)
10/18/2016	0.0778 (J)	0.249	<0.1	0.0207 (J)	<0.1
1/30/2017			<0.1		0.0269 (J)
1/31/2017	0.077 (J)	0.121		<0.1	
5/2/2017	0.0602 (J)	0.0695 (J)	<0.1	<0.1	0.027 (J)
6/6/2017	0.0442 (J)	0.0509 (J)			
6/7/2017			<0.1	<0.1	<0.1
9/12/2017		0.0709 (J)	<0.1		
9/13/2017	0.0411 (J)			<0.1	0.032 (J)
5/1/2018		0.0365 (J)	<0.1		0.0302 (J)
5/2/2018	0.0334 (J)			<0.1	
11/26/2018		0.0836 (J)			0.139
11/27/2018	0.0265 (J)		<0.1	<0.1	
5/28/2019	<0.1	0.556	<0.1	<0.1	
5/29/2019					0.141
10/2/2019	<0.1	0.186	<0.1	<0.1	0.116
3/30/2020	<0.1	0.304	<0.1	<0.1	
3/31/2020					0.112
9/8/2020	0.521	0.362	<0.1	<0.1	
9/9/2020					0.0873 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.001	<0.001		<0.001	<0.001	<0.001
4/19/2016	<0.001	<0.001		<0.001	<0.001	<0.001
6/6/2016	<0.001					<0.001
6/7/2016		<0.001		<0.001	<0.001	
8/30/2016	<0.001	<0.001		<0.001	<0.001	<0.001
10/18/2016	<0.001	<0.001		<0.001	<0.001	<0.001
1/30/2017		<0.001				
1/31/2017	<0.001			<0.001	<0.001	<0.001
5/2/2017	<0.001	<0.001		<0.001	<0.001	<0.001
6/6/2017	<0.001			<0.001	<0.001	<0.001
6/7/2017		<0.001				
1/23/2018	<0.001	<0.001		<0.001	<0.001	<0.001
5/1/2018		<0.001		<0.001	<0.001	<0.001
5/2/2018	<0.001					
11/26/2018		<0.001				<0.001
11/27/2018	<0.001			<0.001	<0.001	
5/28/2019						<0.001
5/29/2019	<0.001	<0.001		<0.001	<0.001	
10/2/2019	<0.001	<0.001		<0.001	<0.001	<0.001
3/31/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/8/2020			<0.001			<0.001
9/9/2020	<0.001	<0.001		<0.001	<0.001	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001
4/18/2016	<0.001	<0.001	<0.001	<0.001	
4/19/2016					<0.001
6/6/2016		<0.001	<0.001		
6/7/2016	<0.001			<0.001	<0.001
8/30/2016	<0.001	<0.001	<0.001	<0.001	<0.001
10/18/2016	<0.001	<0.001	<0.001	<0.001	<0.001
1/30/2017			<0.001		<0.001
1/31/2017	<0.001	<0.001		<0.001	
5/2/2017	<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2017	<0.001	<0.001			
6/7/2017			<0.001	<0.001	<0.001
1/22/2018		<0.001	<0.001		
1/23/2018					<0.001
1/24/2018	<0.001			<0.001	
5/1/2018		<0.001	<0.001		<0.001
5/2/2018	<0.001			<0.001	
11/26/2018		<0.001			<0.001
11/27/2018	<0.001		<0.001	<0.001	
5/28/2019	<0.001	<0.001	<0.001	<0.001	
5/29/2019					<0.001
10/2/2019	<0.001	<0.001	<0.001	<0.001	<0.001
3/30/2020	<0.001	<0.001	<0.001	<0.001	
3/31/2020					<0.001
9/8/2020	<0.001	<0.001	<0.001	<0.001	
9/9/2020					<0.001

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	1.28	0.795		1.11	1.77	1.42
4/19/2016	1.19	0.761		1.09	1.68	1.31
6/6/2016	1.19					1.35
6/7/2016		0.799		1.16	1.68	
8/30/2016	1.11	0.788		1.08	1.62	1.31
10/18/2016	1.04	0.788		1.03	1.53	1.22
1/30/2017		0.755				
1/31/2017	1.19			1.23	1.65	1.36
5/2/2017	1.05	0.763		1.28	1.58	1.24
6/6/2017	0.978			1.25	1.55	1.28
6/7/2017		0.706				
9/12/2017						1.47
9/13/2017	1.14	0.873		1.6	1.71	
5/1/2018		1.05		1.58	1.76	1.47
5/2/2018	1.64					
11/26/2018		0.922				1.52
11/27/2018	2.01			1.49	1.69	
5/28/2019						1.6
5/29/2019	1.85	1.07		1.59	1.74	
10/2/2019	1.55	1.32		1.7	1.86	1.7
3/31/2020	1.96	0.98	0.663	1.43	1.92	1.78
9/8/2020			0.724			1.94
9/9/2020	1.43	1.1		1.5	1.97	

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	2.42	18.3	1.4	0.618	1.15
4/18/2016	4.65	23.2	1.2	0.505	
4/19/2016					1.04
6/6/2016		19.7	1.48		
6/7/2016	3.1			0.587	1.22
8/30/2016	2.19	10.9	1.13	0.495 (J)	1.18
10/18/2016	1.97	8.74	1.45	0.503	1.12
1/30/2017			1.95		1.23
1/31/2017	1.73	7.89		0.554	
5/2/2017	1.74	5.81	0.908	0.548	1.2
6/6/2017	1.66	4.72			
6/7/2017			1.29	0.545	1.17
9/12/2017		4.39	1.44		
9/13/2017	1.61			0.723	1.25
5/1/2018		4.66	0.695		1.25
5/2/2018	1.44			0.751	
11/26/2018		3.41			1.61
11/27/2018	1.3		0.798	0.743	
5/28/2019	1.25	10	0.973	0.789	
5/29/2019					1.8
10/2/2019	1.33	4.94	0.929	0.882	1.85
3/30/2020	1.26	7.56	1.32	0.841	
3/31/2020					1.67
9/8/2020	3.24	6.38	1.12	0.981	
9/9/2020					1.79

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	3.59	3.57		3.99	3.68	3.5
4/19/2016	2.89	3.12		4.08	3.72	3.63
6/6/2016	3.12					3.6
6/7/2016		3.14		4.28	3.66	
8/30/2016	3.91	2.93		4.26	3.7	3.54
10/18/2016	3.9	2.96		4.26	3.77	3.68
3/20/2017	3.5			4.1	3.7	4.6
3/21/2017		4.4				
5/2/2017	3.5	3.7		5	4.6	3.9
6/6/2017	3.1			3.9	3.4	3.4
6/7/2017		3.3				
9/12/2017						4.3
9/13/2017	<2 (U*)	5.1		<2 (U*)	<2 (U*)	
5/1/2018		4		3.7	4.1	3.8
5/2/2018	9.9					
11/26/2018		3.8				3.6
11/27/2018	4.7			3.2	3.5	
5/28/2019						3.6
5/29/2019	5.48	4.34		2.93	3.58	
10/2/2019	3.65	4.34		2.75	3.64	3.5
3/31/2020	3.17	3.89	4.13	2.72	3.47	3.34
9/8/2020			3.96			3.29
9/9/2020	2.92	4.11		2.32	3.47	

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3.86	6.06	4.08	4.47	4.1
4/18/2016	4.46	6.13	4.14	4.74	
4/19/2016					3.11
6/6/2016		5.52	4.09		
6/7/2016	3.74			4.52	3.72
8/30/2016	3.5	5.35	4.6	4.71	4.8
10/18/2016	3.5	4.55	8.32	4.73	4.71
3/21/2017	2.8	3.5	5.6	4.9	5.3
5/2/2017	3.9	4.8	4.8	5.7	6.6
6/6/2017	3.4	3.6			
6/7/2017			6.3	4.1	5.2
9/12/2017		4.3	8.5		
9/13/2017	<2 (U*)			4.9	6.5
5/1/2018		3.8	4		5.7
5/2/2018	3.5			4.1	
11/26/2018		3.5			11
11/27/2018	3.7		4.3	4.9	
5/28/2019	3.69	6.26	4.63	4.43	
5/29/2019					8.56
10/2/2019	3.49	4.13	5.02	4.32	8.48
3/30/2020	3.45	4.95	10.5	4.38	
3/31/2020					6.87
9/8/2020	6.23	5.71	8.74	4.61	
9/9/2020					7.94

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.01	<0.01		<0.01	<0.01	<0.01
4/19/2016	<0.01	<0.01		<0.01	<0.01	<0.01
6/6/2016	<0.01					<0.01
6/7/2016		<0.01		<0.01	<0.01	
8/30/2016	<0.01	<0.01		<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01		<0.01	<0.01	<0.01
1/30/2017		<0.01				
1/31/2017	<0.01			<0.01	<0.01	<0.01
5/2/2017	<0.01	<0.01		<0.01	<0.01	<0.01
6/6/2017	<0.01			<0.01	<0.01	<0.01
6/7/2017		<0.01				
1/23/2018	<0.01	<0.01		0.00596 (J)	0.00229 (J)	<0.01
5/1/2018		<0.01		<0.01	<0.01	<0.01
5/2/2018	<0.01					
11/26/2018		<0.01				<0.01
11/27/2018	<0.01			<0.01	<0.01	
5/28/2019						<0.01
5/29/2019	<0.01	<0.01		<0.01	<0.01	
10/2/2019	<0.01	<0.01		<0.01	<0.01	<0.01
3/31/2020	<0.01	<0.01	0.00249 (J)	<0.01	<0.01	0.00604 (J)
9/8/2020			0.00253 (J)			<0.01
9/9/2020	<0.01	<0.01		<0.01	<0.01	

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01	0.00209 (J)	<0.01	<0.01	<0.01
4/18/2016	<0.01	0.00324 (J)	<0.01	0.00201 (J)	
4/19/2016					<0.01
6/6/2016		0.0031 (J)	<0.01		
6/7/2016	<0.01			<0.01	<0.01
8/30/2016	<0.01	0.00227 (J)	<0.01	0.00205 (J)	<0.01
10/18/2016	<0.01	<0.01	<0.01	0.00218 (J)	<0.01
1/30/2017			<0.01		<0.01
1/31/2017	<0.01	<0.01		<0.01	
5/2/2017	<0.01	<0.01	<0.01	0.00208 (J)	<0.01
6/6/2017	<0.01	<0.01			
6/7/2017			<0.01	0.0022 (J)	<0.01
1/22/2018		<0.01	<0.01		
1/23/2018					<0.01
1/24/2018	<0.01			0.00258 (J)	
5/1/2018		<0.01	<0.01		<0.01
5/2/2018	<0.01			0.00202 (J)	
11/26/2018		<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
10/2/2019	<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
9/8/2020	0.00221 (J)	0.00237 (J)	<0.01	0.00224 (J)	
9/9/2020					<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	0.0035 (J)	0.00247 (J)		<0.005	<0.005	<0.005
4/19/2016	0.0038 (J)	0.00241 (J)		<0.005	<0.005	<0.005
6/6/2016	0.00427 (J)					<0.005
6/7/2016		0.00247 (J)		<0.005	<0.005	
8/30/2016	0.00348 (J)	0.00251 (J)		<0.005	<0.005	<0.005
10/18/2016	0.00338 (J)	0.00272 (J)		<0.005	<0.005	<0.005
1/30/2017		<0.005				
1/31/2017	0.00308 (J)			<0.005	<0.005	<0.005
5/2/2017	0.00314 (J)	0.00205 (J)		<0.005	<0.005	<0.005
6/6/2017	0.0036 (J)			<0.005	<0.005	<0.005
6/7/2017		0.00201 (J)				
1/23/2018	0.00586 (J)	0.00229 (J)		0.0021 (J)	<0.005	<0.005
5/1/2018		0.00216 (J)		<0.005	<0.005	<0.005
5/2/2018	0.00702 (J)					
11/26/2018		0.00205 (J)				<0.005
11/27/2018	0.0157			0.00209 (J)	<0.005	
5/28/2019						<0.005
5/29/2019	0.0109	0.00261 (J)		0.00248 (J)	<0.005	
10/2/2019	0.0129	0.00262 (J)		0.00244 (J)	<0.005	<0.005
3/31/2020	0.0123	0.00238 (J)	<0.005	0.00224 (J)	<0.005	<0.005
9/8/2020			<0.005			<0.005
9/9/2020	0.00697	0.00241 (J)		0.00219 (J)	<0.005	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2016	0.00278 (J)	0.00338 (J)	<0.005	<0.005	
4/19/2016					<0.005
6/6/2016		0.00361 (J)	<0.005		
6/7/2016	<0.005			<0.005	<0.005
8/30/2016	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017			<0.005		<0.005
1/31/2017	<0.005	<0.005		<0.005	
5/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005			
6/7/2017			<0.005	<0.005	<0.005
1/22/2018		<0.005	<0.005		
1/23/2018					<0.005
1/24/2018	<0.005			<0.005	
5/1/2018		<0.005	<0.005		<0.005
5/2/2018	<0.005			<0.005	
11/26/2018		<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					<0.005
10/2/2019	<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					<0.005
9/8/2020	0.00227 (J)	0.00296 (J)	<0.005	<0.005	
9/9/2020					<0.005

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	2.8971 (U)	3 (U)		3 (U)	3 (U)	2.1138
4/19/2016	3 (U)	3 (U)		3 (U)	3 (U)	3 (U)
6/6/2016	0.841					0.757
6/7/2016		1.03		0.652	0.342 (U)	
8/30/2016	1.74	1.05		0.411 (U)	0.702	0.992
10/18/2016	1.47	1.36		1	0.791	0.905
1/30/2017		0.847				
1/31/2017	0.952			0.398 (U)	0.0613 (U)	1.08
5/2/2017	0.768	0.649		0.66	0.974	1.18
6/6/2017	1.04			0.639	0.748	1.1
6/7/2017		1.4				
1/23/2018	0.513 (U)	1.36 (U)		0.669 (U)	0.558 (U)	1.32 (U)
5/1/2018		1.03		1.06	0.296 (U)	1.19
5/2/2018	0.916					
11/26/2018		1.04				0.863
11/27/2018	1.37			0.636	0.357 (U)	
5/28/2019						0.474 (U)
5/29/2019	1.57	0.548 (U)		0.579 (U)	0.275 (U)	
10/2/2019	0.905	2.19		1.33	0.458 (U)	0.624 (U)
3/31/2020	1.77	1.01	0.968	0.814	0.941	1.09
9/8/2020			0.468 (U)			1.27
9/9/2020	1.77	1.32		0.653 (U)	1.05	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3 (U)	1.2261 (U)	3 (U)	3 (U)	3 (U)
4/18/2016	3 (U)	1.92351 (U)	3 (U)	3 (U)	
4/19/2016					3.81872
6/6/2016		1.47	0.427		
6/7/2016	1.03			0.69	0.941
8/30/2016	0.696	1.91	0.869	0.687	0.98
10/18/2016	0.966	0.966	0.927	0.62	1.06
1/30/2017			0.649		1.15
1/31/2017	0.724	1.01		0.266 (U)	
5/2/2017	0.587	1.41	0.804	0.853	1.31
6/6/2017	0.591	0.476			
6/7/2017			0.136 (U)	0.477	1.12
1/22/2018		0.814 (U)	0.726 (U)		
1/23/2018					1.16 (U)
1/24/2018	0.566 (U)			0.411 (U)	
5/1/2018		0.931	0.63		0.961
5/2/2018	0.401			0.718	
11/26/2018		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					2.2
10/2/2019	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					1.88
9/8/2020	0.845	0.402 (U)	1.13	0.0249 (U)	
9/9/2020					2.11

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	0.03 (J)	0.05 (J)		0.02 (J)	0.02 (J)	0.02 (J)
4/19/2016	0.023 (J)	0.05 (J)		0.021 (J)	0.016 (J)	0.015 (J)
6/6/2016	0.062 (J)					0.05 (J)
6/7/2016		0.098 (J)		0.06 (J)	0.052 (J)	
8/30/2016	0.053 (J)	0.089 (J)		0.05 (J)	0.038 (J)	0.036 (J)
10/18/2016	0.042 (J)	0.092 (J)		0.04 (J)	0.03 (J)	0.025 (J)
3/20/2017	<0.1			<0.1	<0.1	<0.1
3/21/2017		0.06 (J)				
5/2/2017	0.04 (J)	0.07 (J)		0.04 (J)	<0.1	<0.1
6/6/2017	<0.1			0.04 (J)	<0.1	<0.1
6/7/2017		0.07 (J)				
9/12/2017						<0.1
9/13/2017	0.04 (J)	0.08 (J)		0.043 (J)	<0.1	
1/23/2018	<0.1	0.08 (J)		0.04 (J)	<0.1	<0.1
5/1/2018		0.09 (J)		0.04 (J)	<0.1	<0.1
5/2/2018	0.04 (J)					
11/26/2018		0.08 (J)				<0.1
11/27/2018	<0.1			<0.1	<0.1	
5/28/2019						<0.1
5/29/2019	0.0502 (J)	<0.1		<0.1	<0.1	
10/2/2019	<0.1	<0.1		<0.1	<0.1	<0.1
3/31/2020	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
9/8/2020			<0.1			<0.1
9/9/2020	<0.1	<0.1		<0.1	<0.1	

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)	0.05 (J)
4/18/2016	0.04 (J)	0.138 (J)	0.018 (J)	0.019 (J)	
4/19/2016					0.039 (J)
6/6/2016		0.148 (J)	0.051 (J)		
6/7/2016	0.066 (J)			0.053 (J)	0.085 (J)
8/30/2016	0.046 (J)	0.072 (J)	0.039 (J)	0.038 (J)	0.078 (J)
10/18/2016	0.034 (J)	0.049 (J)	0.025 (J)	0.028 (J)	0.071 (J)
3/21/2017	<0.1	<0.1	<0.1	<0.1	0.05 (J)
5/2/2017	<0.1	<0.1	<0.1	<0.1	0.06 (J)
6/6/2017	<0.1	<0.1			
6/7/2017			<0.1	<0.1	0.07 (J)
9/12/2017		<0.1	<0.1		
9/13/2017	<0.1			<0.1	0.08 (J)
1/22/2018		<0.1	<0.1		
1/23/2018					0.07 (J)
1/24/2018	<0.1			<0.1	
5/1/2018		<0.1	<0.1		0.07 (J)
5/2/2018	<0.1			<0.1	
11/26/2018		<0.1			0.07 (J)
11/27/2018	<0.1		<0.1	<0.1	
5/28/2019	<0.1	0.0591 (J)	<0.1	<0.1	
5/29/2019					<0.1
10/2/2019	<0.1	<0.1	<0.1	<0.1	<0.1
3/30/2020	<0.1	<0.1	<0.1	<0.1	
3/31/2020					<0.1
9/8/2020	<0.1	<0.1	<0.1	<0.1	
9/9/2020					<0.1

Time Series

Constituent: Lead (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.005	<0.005		<0.005	<0.005	<0.005
4/19/2016	<0.005	<0.005		<0.005	<0.005	<0.005
6/6/2016	<0.005					<0.005
6/7/2016		<0.005		<0.005	<0.005	
8/30/2016	<0.005	<0.005		<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005		<0.005	<0.005	<0.005
1/30/2017		<0.005				
1/31/2017	<0.005			<0.005	<0.005	<0.005
5/2/2017	<0.005	<0.005		<0.005	<0.005	<0.005
6/6/2017	<0.005			<0.005	<0.005	<0.005
6/7/2017		<0.005				
1/23/2018	<0.005	<0.005		<0.005	<0.005	<0.005
5/1/2018		<0.005		<0.005	<0.005	<0.005
5/2/2018	<0.005					
11/26/2018		<0.005				<0.005
11/27/2018	<0.005			<0.005	<0.005	
5/28/2019						<0.005
5/29/2019	<0.005	<0.005		<0.005	<0.005	
10/2/2019	<0.005	<0.005		<0.005	<0.005	<0.005
3/31/2020	<0.005	<0.005	<0.005	<0.005	<0.005	0.00126 (J)
9/8/2020			<0.005			<0.005
9/9/2020	<0.005	<0.005		<0.005	<0.005	

Time Series

Constituent: Lead (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.005	<0.005	<0.005	<0.005	<0.005
4/18/2016	<0.005	<0.005	<0.005	<0.005	
4/19/2016					<0.005
6/6/2016		<0.005	<0.005		
6/7/2016	<0.005			<0.005	<0.005
8/30/2016	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017			<0.005		<0.005
1/31/2017	<0.005	<0.005		<0.005	
5/2/2017	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005			
6/7/2017			<0.005	<0.005	<0.005
1/22/2018		<0.005	<0.005		
1/23/2018					<0.005
1/24/2018	<0.005			<0.005	
5/1/2018		<0.005	<0.005		<0.005
5/2/2018	<0.005			<0.005	
11/26/2018		<0.005			<0.005
11/27/2018	<0.005		<0.005	<0.005	
5/28/2019	<0.005	<0.005	<0.005	<0.005	
5/29/2019					<0.005
10/2/2019	<0.005	<0.005	<0.005	<0.005	<0.005
3/30/2020	<0.005	<0.005	<0.005	<0.005	
3/31/2020					<0.005
9/8/2020	<0.005	<0.005	<0.005	<0.005	
9/9/2020					<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.02	<0.02		<0.02	<0.02	<0.02
4/19/2016	<0.02	<0.02		<0.02	<0.02	<0.02
6/6/2016	<0.02					<0.02
6/7/2016		<0.02		<0.02	<0.02	
8/30/2016	<0.02	<0.02		<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02		<0.02	<0.02	<0.02
1/30/2017		<0.02				
1/31/2017	<0.02			<0.02	<0.02	<0.02
5/2/2017	<0.02	<0.02		<0.02	<0.02	<0.02
6/6/2017	<0.02			<0.02	<0.02	<0.02
6/7/2017		<0.02				
1/23/2018	<0.02	<0.02		<0.02	<0.02	<0.02
5/1/2018		<0.02		<0.02	<0.02	<0.02
5/2/2018	<0.02					
11/26/2018		<0.02				<0.02
11/27/2018	<0.02			<0.02	<0.02	
5/28/2019						<0.02
5/29/2019	<0.02	<0.02		<0.02	<0.02	
10/2/2019	<0.02	<0.02		<0.02	<0.02	<0.02
3/31/2020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
9/8/2020			<0.02			<0.02
9/9/2020	<0.02	<0.02		<0.02	<0.02	

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.02	<0.02	<0.02	<0.02	<0.02
4/18/2016	<0.02	<0.02	<0.02	<0.02	
4/19/2016					<0.02
6/6/2016		<0.02	<0.02		
6/7/2016	<0.02			<0.02	<0.02
8/30/2016	<0.02	<0.02	<0.02	<0.02	<0.02
10/18/2016	<0.02	<0.02	<0.02	<0.02	<0.02
1/30/2017			<0.02		<0.02
1/31/2017	<0.02	<0.02		<0.02	
5/2/2017	<0.02	<0.02	<0.02	<0.02	<0.02
6/6/2017	<0.02	<0.02			
6/7/2017			<0.02	<0.02	<0.02
1/22/2018		<0.02	<0.02		
1/23/2018					<0.02
1/24/2018	<0.02			<0.02	
5/1/2018		<0.02	<0.02		<0.02
5/2/2018	<0.02			<0.02	
11/26/2018		<0.02			<0.02
11/27/2018	<0.02		<0.02	<0.02	
5/28/2019	<0.02	<0.02	<0.02	<0.02	
5/29/2019					<0.02
10/2/2019	<0.02	<0.02	<0.02	<0.02	<0.02
3/30/2020	<0.02	<0.02	<0.02	<0.02	
3/31/2020					<0.02
9/8/2020	<0.02	<0.02	<0.02	<0.02	
9/9/2020					<0.02

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
4/19/2016	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
6/6/2016	<0.0005					<0.0005
6/7/2016		<0.0005		<0.0005	<0.0005	
8/30/2016	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
1/30/2017		<0.0005				
1/31/2017	<0.0005			<0.0005	<0.0005	<0.0005
5/2/2017	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005			<0.0005	<0.0005	<0.0005
6/7/2017		<0.0005				
1/23/2018	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
5/1/2018		<0.0005		<0.0005	<0.0005	<0.0005
5/2/2018	<0.0005					
11/26/2018		<0.0005				<0.0005
11/27/2018	<0.0005			<0.0005	<0.0005	
5/28/2019						<0.0005
5/29/2019	<0.0005	<0.0005		<0.0005	<0.0005	
10/2/2019	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
3/31/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
9/8/2020			<0.0005			<0.0005
9/9/2020	<0.0005	<0.0005		<0.0005	<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/18/2016	<0.0005	<0.0005	<0.0005	<0.0005	
4/19/2016					<0.0005
6/6/2016		<0.0005	<0.0005		
6/7/2016	<0.0005			0.00031 (J)	<0.0005
8/30/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/18/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/30/2017			<0.0005		<0.0005
1/31/2017	<0.0005	<0.0005		<0.0005	
5/2/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005	<0.0005			
6/7/2017			<0.0005	<0.0005	<0.0005
1/22/2018		<0.0005	<0.0005		
1/23/2018					<0.0005
1/24/2018	<0.0005			<0.0005	
5/1/2018		<0.0005	<0.0005		<0.0005
5/2/2018	<0.0005			<0.0005	
11/26/2018		<0.0005			<0.0005
11/27/2018	<0.0005		<0.0005	<0.0005	
5/28/2019	<0.0005	<0.0005	<0.0005	<0.0005	
5/29/2019					<0.0005
10/2/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005	<0.0005	<0.0005	
3/31/2020					<0.0005
9/8/2020	<0.0005	<0.0005	<0.0005	<0.0005	
9/9/2020					<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.01	<0.01		<0.01	<0.01	<0.01
4/19/2016	<0.01	<0.01		<0.01	<0.01	<0.01
6/6/2016	<0.01					<0.01
6/7/2016		<0.01		<0.01	<0.01	
8/30/2016	<0.01	<0.01		<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01		<0.01	<0.01	<0.01
1/30/2017		<0.01				
1/31/2017	<0.01			<0.01	<0.01	<0.01
5/2/2017	<0.01	<0.01		<0.01	<0.01	<0.01
6/6/2017	<0.01			<0.01	<0.01	<0.01
6/7/2017		<0.01				
1/23/2018	<0.01	<0.01		<0.01	<0.01	<0.01
5/1/2018		<0.01		<0.01	<0.01	<0.01
5/2/2018	<0.01					
11/26/2018		<0.01				<0.01
11/27/2018	<0.01			<0.01	<0.01	
5/28/2019						<0.01
5/29/2019	<0.01	<0.01		<0.01	<0.01	
10/2/2019	<0.01	<0.01		<0.01	<0.01	<0.01
3/31/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/8/2020			<0.01			<0.01
9/9/2020	<0.01	<0.01		<0.01	<0.01	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01	<0.01	<0.01	<0.01	<0.01
4/18/2016	<0.01	<0.01	<0.01	<0.01	
4/19/2016					<0.01
6/6/2016		<0.01	<0.01		
6/7/2016	<0.01			<0.01	<0.01
8/30/2016	<0.01	<0.01	<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01	<0.01	<0.01	<0.01
1/30/2017			<0.01		<0.01
1/31/2017	<0.01	<0.01		<0.01	
5/2/2017	<0.01	<0.01	<0.01	<0.01	<0.01
6/6/2017	<0.01	<0.01			
6/7/2017			<0.01	<0.01	<0.01
1/22/2018		<0.01	<0.01		
1/23/2018					<0.01
1/24/2018	<0.01			<0.01	
5/1/2018		<0.01	<0.01		<0.01
5/2/2018	<0.01			<0.01	
11/26/2018		<0.01			<0.01
11/27/2018	<0.01		<0.01	<0.01	
5/28/2019	<0.01	<0.01	<0.01	<0.01	
5/29/2019					<0.01
10/2/2019	<0.01	<0.01	<0.01	<0.01	<0.01
3/30/2020	<0.01	<0.01	<0.01	<0.01	
3/31/2020					<0.01
9/8/2020	<0.01	<0.01	<0.01	<0.01	
9/9/2020					<0.01

Time Series

Constituent: pH, Field (pH) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	4.62	4.67		4.79	4.96	4.74
4/19/2016	4.74	4.79		4.84	4.94	4.86
6/6/2016	4.65					4.88
6/7/2016		4.73		4.81	4.96	
8/30/2016	4.64	4.68		4.76	4.92	4.91
10/18/2016	4.74	4.75		4.84	4.98	4.95
1/30/2017		4.65				
1/31/2017	4.54			4.6	4.74	4.71
3/20/2017	4.67			4.71	4.9	4.83
3/21/2017		4.68				
5/2/2017	4.79	4.75		4.8	4.98	4.93
6/6/2017	4.76			4.72	4.94	4.9
6/7/2017		4.7				
9/12/2017						4.82
9/13/2017	4.81	4.71		4.71	4.93	
1/23/2018	4.79	4.6		4.67	4.91	4.85
5/1/2018		4.61		4.61	4.87	4.8
5/2/2018	4.62					
11/26/2018		4.65				4.88
11/27/2018	4.73			4.72	4.94	
5/28/2019						4.73
5/29/2019	4.65	4.54		4.58	4.8	
10/2/2019	4.57	4.6		4.43	4.52	4.67
3/31/2020	4.64	4.55	4.91	4.6	4.4	4.51
9/8/2020			4.12			4.75
9/9/2020	4.65	4.58		4.67	4.76	

Time Series

Constituent: pH, Field (pH) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	4.76	6.59	5.12	4.92	4.56
4/18/2016	4.75	6.21	5.11	5.16	
4/19/2016					4.62
6/6/2016		5.97	5.14		
6/7/2016	4.77			5.11	4.64
8/30/2016	4.82	5.99	5.06	5.14	4.58
10/18/2016	4.82	5.94	5.01	5.09	4.58
1/30/2017			4.74		4.44
1/31/2017	4.8	5.92		5.01	
3/21/2017	4.86	5.74	5.04	5.07	4.57
5/2/2017	4.89	5.82	5.08	5.13	4.64
6/6/2017	4.86	5.77			
6/7/2017			5.07	5.05	4.58
9/12/2017		5.64	5.03		
9/13/2017	4.89			5.06	4.54
1/22/2018		5.66	5.06		
1/23/2018					4.53
1/24/2018	4.86			5.02	
5/1/2018		5.71	4.89		4.46
5/2/2018	4.87			4.99	
11/26/2018		5.58			4.5
11/27/2018	4.92		5.05	5.06	
5/28/2019	4.8	5.21	4.83	4.92	
5/29/2019					4.45
10/2/2019	4.44	5.4	5.04	4.86	4.49
3/30/2020	4.83	5.51	4.91	4.92	
3/31/2020					4.45
9/8/2020	4.77	5.15	4.39	4.35	
9/9/2020					4.46

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.01	<0.01		<0.01	<0.01	<0.01
4/19/2016	<0.01	<0.01		<0.01	<0.01	<0.01
6/6/2016	<0.01					<0.01
6/7/2016		<0.01		<0.01	<0.01	
8/30/2016	<0.01	<0.01		<0.01	<0.01	<0.01
10/18/2016	<0.01	<0.01		<0.01	<0.01	<0.01
1/30/2017		<0.01				
1/31/2017	<0.01			<0.01	<0.01	<0.01
5/2/2017	<0.01	<0.01		<0.01	<0.01	<0.01
6/6/2017	<0.01			<0.01	<0.01	<0.01
6/7/2017		<0.01				
1/23/2018	<0.01	<0.01		<0.01	<0.01	<0.01
5/1/2018		<0.01		<0.01	<0.01	<0.01
5/2/2018	<0.01					
11/26/2018		<0.01				<0.01
11/27/2018	<0.01			<0.01	<0.01	
5/28/2019						<0.01
5/29/2019	<0.01	<0.01		<0.01	<0.01	
10/2/2019	<0.01	<0.01		<0.01	<0.01	<0.01
3/31/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/8/2020			<0.01			<0.01
9/9/2020	<0.01	<0.01		<0.01	<0.01	

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.00572 (J)	0.0266	<0.01	<0.01	<0.01
4/18/2016	0.0141	0.0529	<0.01	<0.01	
4/19/2016					<0.01
6/6/2016		0.0382	<0.01		
6/7/2016	0.00698 (J)			<0.01	<0.01
8/30/2016	0.0042 (J)	0.014	<0.01	<0.01	<0.01
10/18/2016	0.00386 (J)	0.0105	<0.01	<0.01	<0.01
1/30/2017			<0.01		<0.01
1/31/2017	0.00247 (J)	0.0104		<0.01	
5/2/2017	0.00284 (J)	0.00778 (J)	<0.01	<0.01	<0.01
6/6/2017	0.003 (J)	0.00576 (J)			
6/7/2017			<0.01	<0.01	<0.01
1/22/2018		0.00287 (J)	<0.01		
1/23/2018					<0.01
1/24/2018	0.00201 (J)			<0.01	
5/1/2018		0.00367 (J)	<0.01		<0.01
5/2/2018	<0.01			<0.01	
11/26/2018		0.00286 (J)			<0.01
11/27/2018	<0.01		<0.01	<0.01	
5/28/2019	<0.01	0.0089 (J)	<0.01	<0.01	
5/29/2019					<0.01
10/2/2019	<0.01	0.00472 (J)	<0.01	<0.01	<0.01
3/30/2020	<0.01	0.00658 (J)	<0.01	<0.01	
3/31/2020					<0.01
9/8/2020	0.0052 (J)	0.0052 (J)	<0.01	<0.01	
9/9/2020					<0.01

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	8.59	9.29		7.2	7.44	7.04
4/19/2016	8.27	9.92		7.22	7.66	6.74
6/6/2016	8.66					7.04
6/7/2016		10		7.92	8.16	
8/30/2016	9.74	11.1		8.17	8.43	7.57
10/18/2016	10.2	11.7		7.99	8.47	6.62
3/20/2017	8.3			6.1	7.4	7
3/21/2017		9				
5/2/2017	6.6	7.9		5	6.3	5.6
6/6/2017	7.6			5.3	7.1	6.6
6/7/2017		8.4				
9/12/2017						7.2
9/13/2017	8.4	8.7		4.9 (J)	7.3	
5/1/2018		10		4.2 (J)	6.9	5.9
5/2/2018	5.9					
11/26/2018		8.3				5.1
11/27/2018	22			3.7 (J)	6.5	
5/28/2019						7.1
5/29/2019	23.3	11.1		5.94	7.81	
10/2/2019	17.5	13.2		6.04	7.62	6.88
3/31/2020	24.3	11.1	3.16	6.83	7.98	10.8
9/8/2020			3.61			6.52
9/9/2020	16.5	9.28		6.08	7.13	

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	12.5	36.5	3.82	3.33	7.71
4/18/2016	28.6	80.2 (O)	3.48	3.78	
4/19/2016					7.85
6/6/2016		0.498 (J)	3.76		
6/7/2016	18.7			4.44	7.76
8/30/2016	13.8	27.8	3.62	4.29	8.22
10/18/2016	12.2	22.5	2.58	4.27	9.29
3/21/2017	8.6	15	3.3 (J)	3.6 (J)	7.1
5/2/2017	8	11	2.5 (J)	2.9 (J)	5.7
6/6/2017	8.6	10			
6/7/2017			3.1 (J)	2.9 (J)	7.1
9/12/2017		7.5	3 (J)		
9/13/2017	7.6			3.2 (J)	7.3
5/1/2018		8.5	1.6 (J)		7.1
5/2/2018	6			2.6 (J)	
11/26/2018		7.4			7.3
11/27/2018	5.5		1.9 (J)	2.8 (J)	
5/28/2019	6.5	32.7	4.86	4.46	
5/29/2019					12.3
10/2/2019	6.55	15.9	4.6	4.96	11.6
3/30/2020	6.34	21.8	4.29	4.84	
3/31/2020					12.5
9/8/2020	15.1	17.7	3.59	4.56	
9/9/2020					10.7

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	<0.001	<0.001		<0.001	<0.001	<0.001
4/19/2016	<0.001	<0.001		<0.001	<0.001	<0.001
6/6/2016	<0.001					<0.001
6/7/2016		<0.001		<0.001	<0.001	
8/30/2016	<0.001	<0.001		<0.001	<0.001	<0.001
10/18/2016	<0.001	<0.001		<0.001	<0.001	<0.001
1/30/2017		<0.001				
1/31/2017	<0.001			<0.001	<0.001	<0.001
5/2/2017	<0.001	<0.001		<0.001	<0.001	<0.001
6/6/2017	<0.001			<0.001	<0.001	<0.001
6/7/2017		<0.001				
1/23/2018	<0.001	<0.001		<0.001	<0.001	<0.001
5/1/2018		<0.001		<0.001	<0.001	<0.001
5/2/2018	<0.001					
11/26/2018		<0.001				<0.001
11/27/2018	<0.001			<0.001	<0.001	
5/28/2019						<0.001
5/29/2019	<0.001	<0.001		<0.001	<0.001	
10/2/2019	<0.001	<0.001		<0.001	<0.001	<0.001
3/31/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/8/2020			<0.001			<0.001
9/9/2020	<0.001	<0.001		<0.001	<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001	<0.001	<0.001	<0.001	<0.001
4/18/2016	<0.001	<0.001	<0.001	<0.001	
4/19/2016					<0.001
6/6/2016		<0.001	<0.001		
6/7/2016	<0.001			<0.001	<0.001
8/30/2016	<0.001	<0.001	<0.001	<0.001	<0.001
10/18/2016	<0.001	<0.001	<0.001	<0.001	<0.001
1/30/2017			<0.001		<0.001
1/31/2017	<0.001	<0.001		<0.001	
5/2/2017	<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2017	<0.001	<0.001			
6/7/2017			<0.001	<0.001	<0.001
1/22/2018		<0.001	<0.001		
1/23/2018					<0.001
1/24/2018	<0.001			<0.001	
5/1/2018		<0.001	<0.001		<0.001
5/2/2018	<0.001			<0.001	
11/26/2018		<0.001			<0.001
11/27/2018	<0.001		<0.001	<0.001	
5/28/2019	<0.001	<0.001	<0.001	<0.001	
5/29/2019					<0.001
10/2/2019	<0.001	<0.001	<0.001	<0.001	<0.001
3/30/2020	<0.001	<0.001	<0.001	<0.001	
3/31/2020					<0.001
9/8/2020	<0.001	<0.001	<0.001	<0.001	
9/9/2020					<0.001

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-10	BY-GSA-MW-11	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)
2/23/2016	26.7	37.3		30.7	40	<25
4/19/2016	<25	34		<25	32	<25
6/6/2016	32.7					28.7
6/7/2016		38.7		35.3	38.7	
8/30/2016	33.3	34		27.3	31.3	25.3
10/18/2016	27.3	31.3		<25	26.7	<25
1/30/2017		<25				
1/31/2017	32			32.7	30	26
5/2/2017	31.3	29.3		30.7	30.7	<25
6/6/2017	35.3			34.7	32.7	42.7
6/7/2017		36				
9/12/2017						26.7
9/13/2017	36.7	35.3		39.3	38	
5/1/2018		32		42	35.3	34.7
5/2/2018	34					
11/26/2018		31.3				32.7
11/27/2018	50.7			31.3	36	
5/28/2019						31.3
5/29/2019	58	43.3		40	37.3	
10/2/2019	46	36		41.3	36.7	36
3/31/2020	53.3	33.3	<25	40	39.3	36.7
9/8/2020			29.3			39.3
9/9/2020	42	39.3		40.7	42.7	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/5/2020 10:12 AM

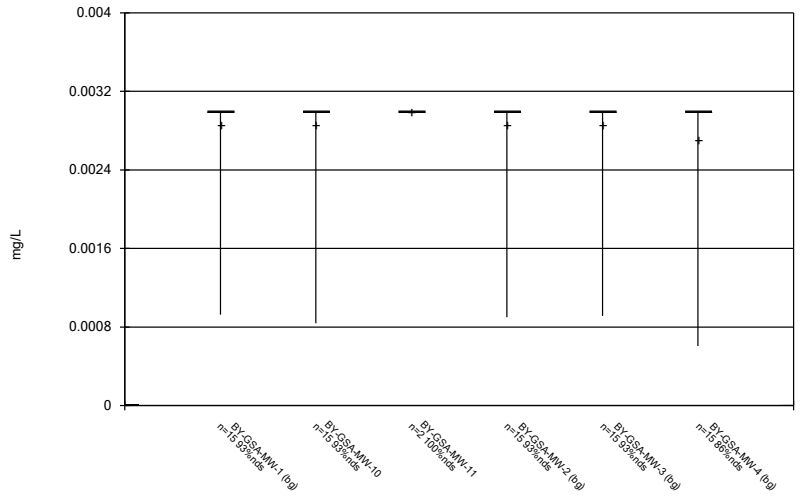
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	38	128	<25	30	25.3
4/18/2016	62	166	<25	27.3	
4/19/2016					28
6/6/2016		131	32.7		
6/7/2016	51.3			32	34.7
8/30/2016	38	86.7	25.3	<25	26.7
10/18/2016	28.7	67.3	28	28	32
1/30/2017			45.3		32.7
1/31/2017	34	60.7		26	
5/2/2017	37.3	50	26.7	25.3	30.7
6/6/2017	36.7	47.3			
6/7/2017			28	<25	<25
9/12/2017		42.7	35.3		
9/13/2017	37.3			31.3	37.3
5/1/2018		44	30.7		39.3
5/2/2018	30.7			30.7	
11/26/2018		38			48
11/27/2018	<25		30.7	35.3	
5/28/2019	26	77.3	33.3	28.7	
5/29/2019					60
10/2/2019	34.7	50.7	30.7	37.3	46.7
3/30/2020	32	58	39.3	30	
3/31/2020					37.3
9/8/2020	55.3	59.3	42	38	
9/9/2020					50.7

FIGURE B.

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

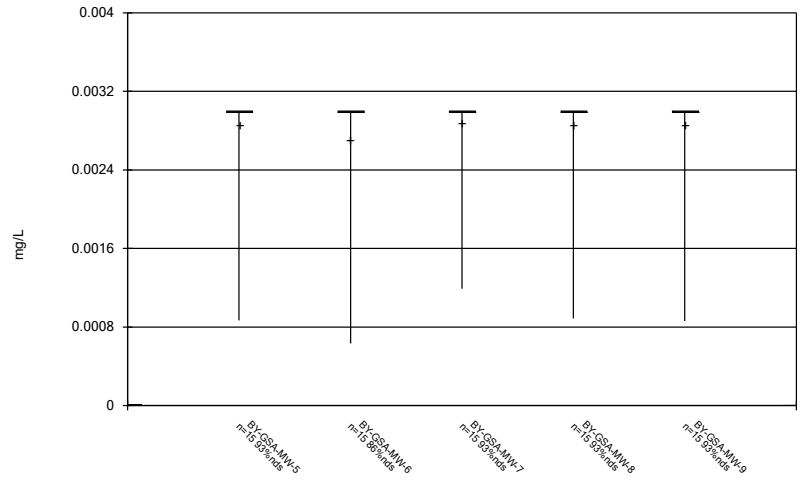


Constituent: Antimony Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

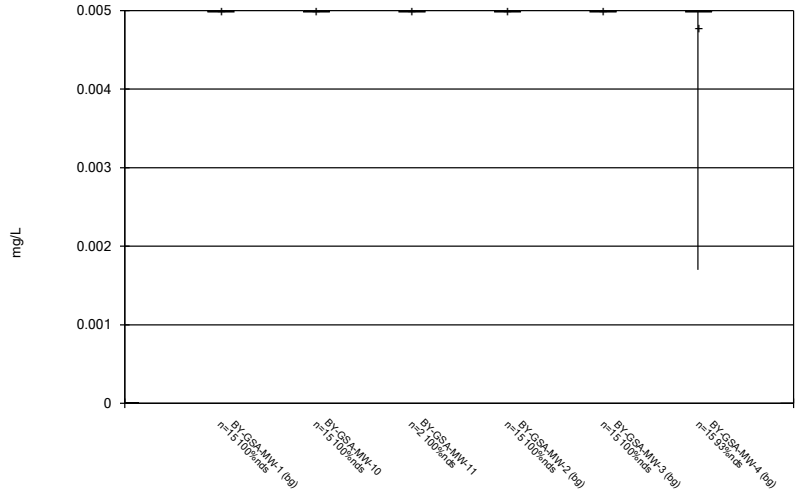


Constituent: Antimony Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

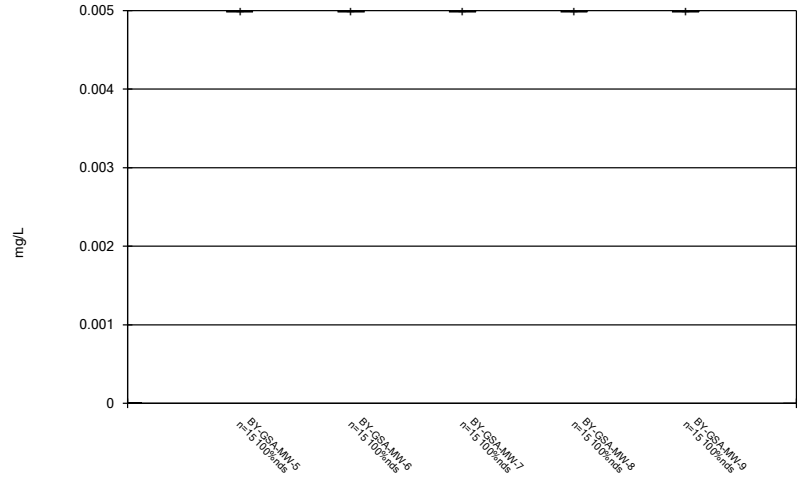


Constituent: Arsenic Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

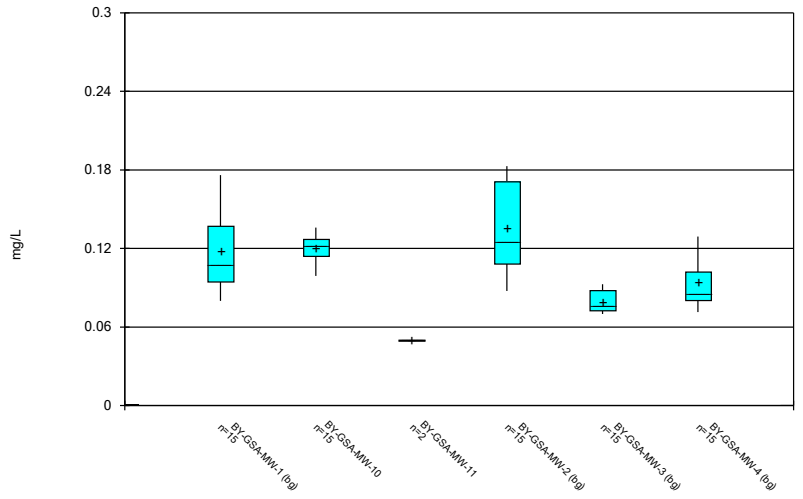


Constituent: Arsenic Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

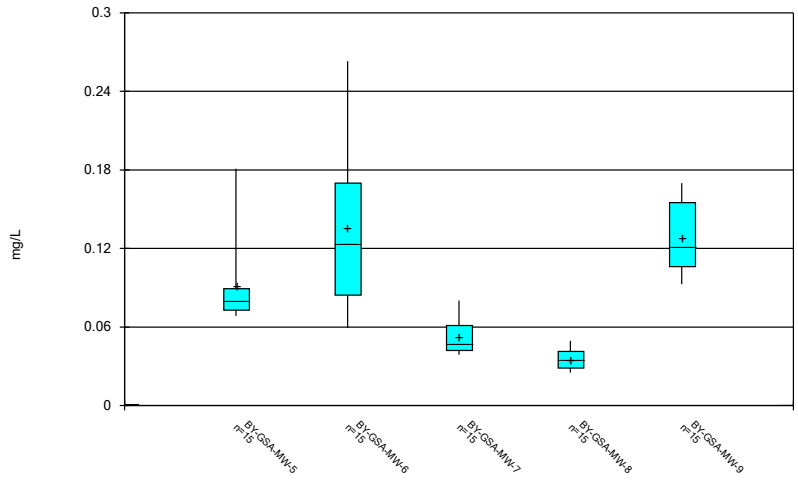


Constituent: Barium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

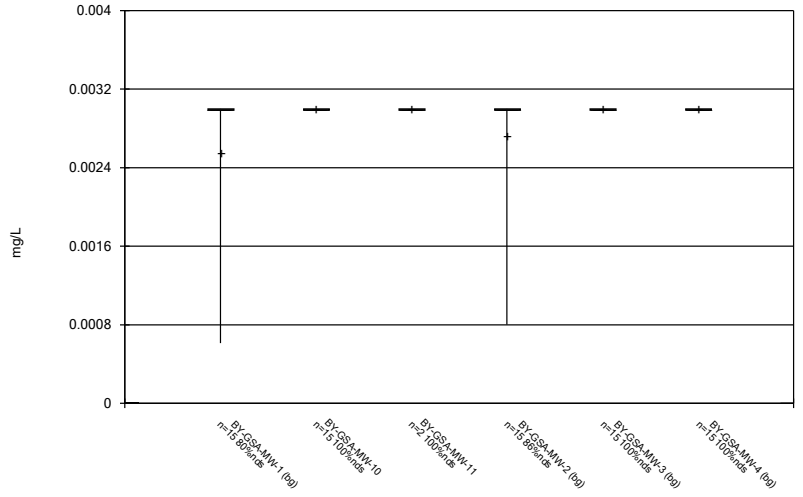


Constituent: Barium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

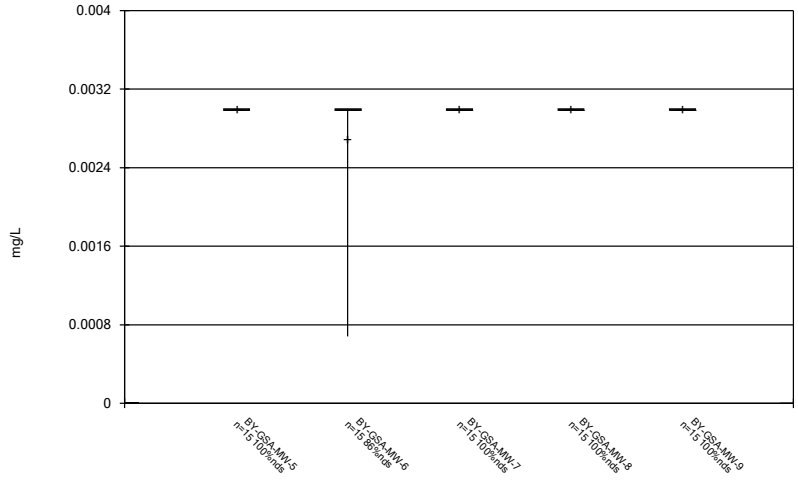


Constituent: Beryllium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

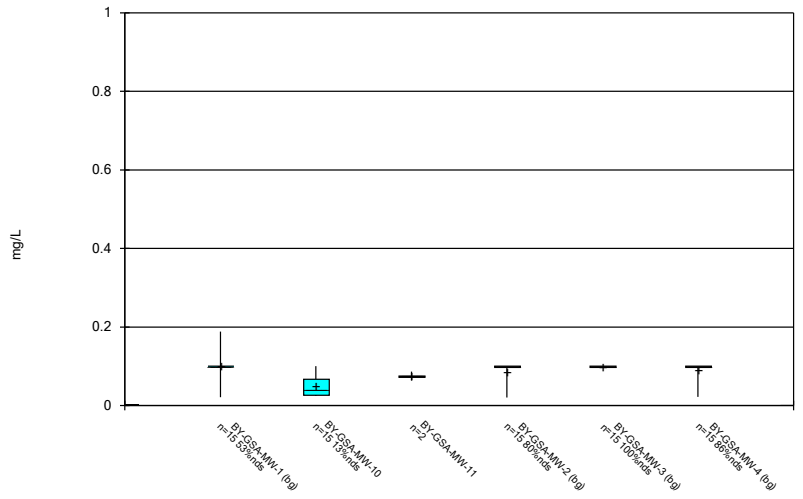


Constituent: Beryllium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

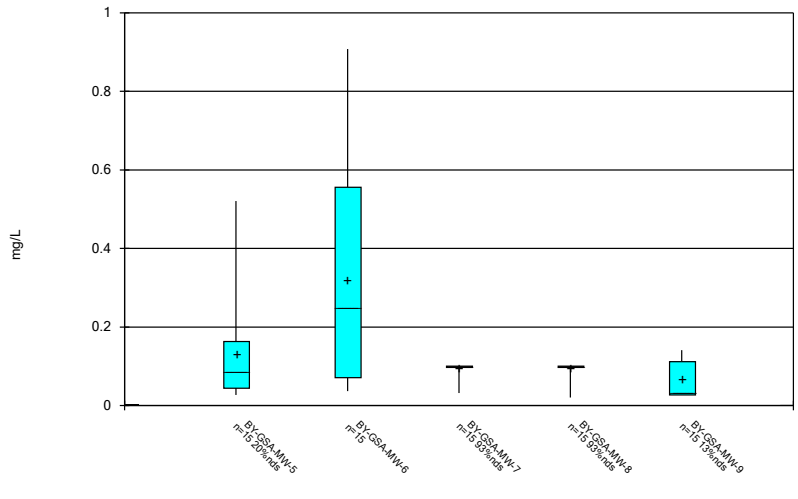


Constituent: Boron, total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

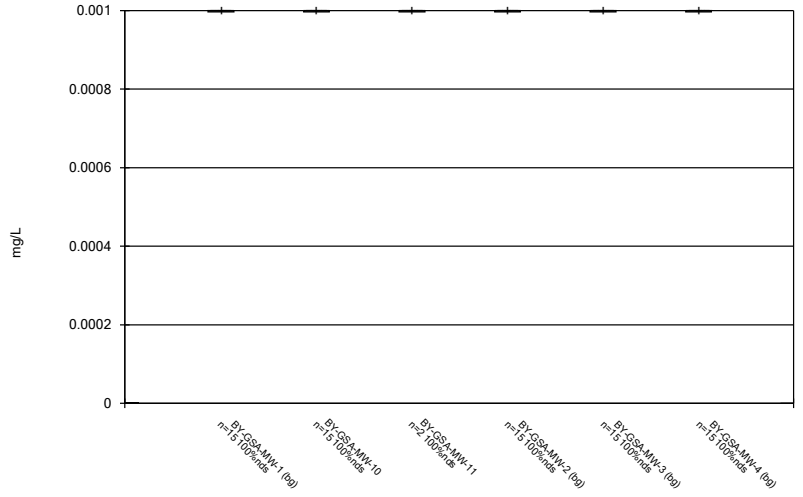


Constituent: Boron, total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

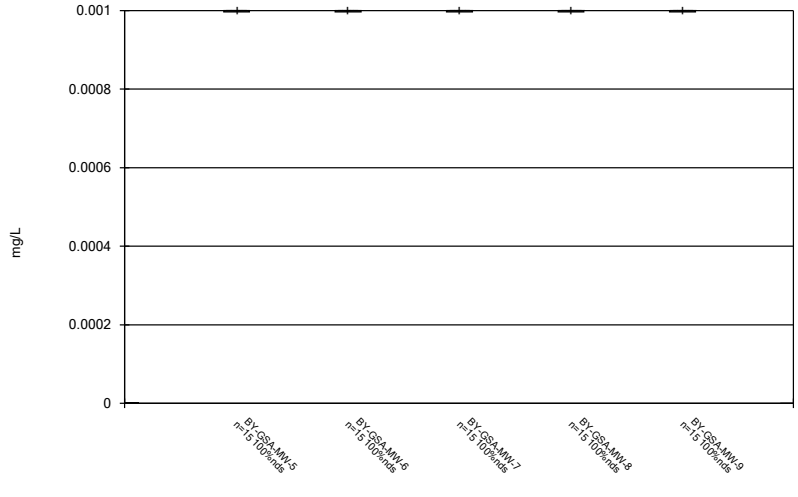


Constituent: Cadmium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

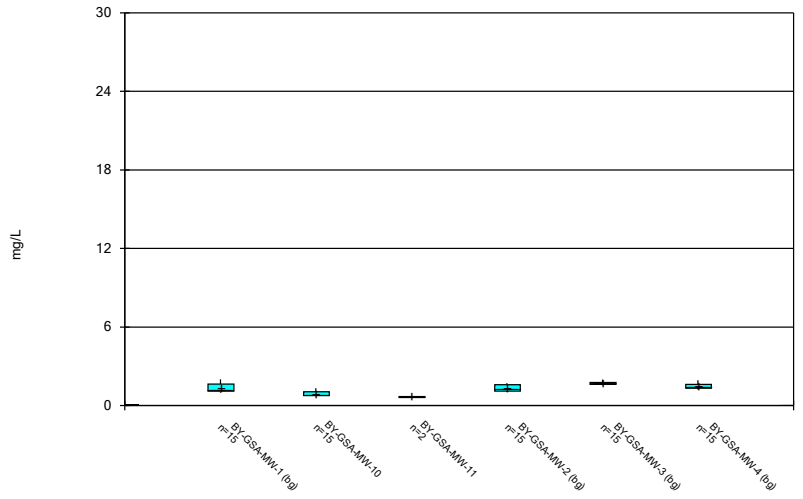


Constituent: Cadmium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

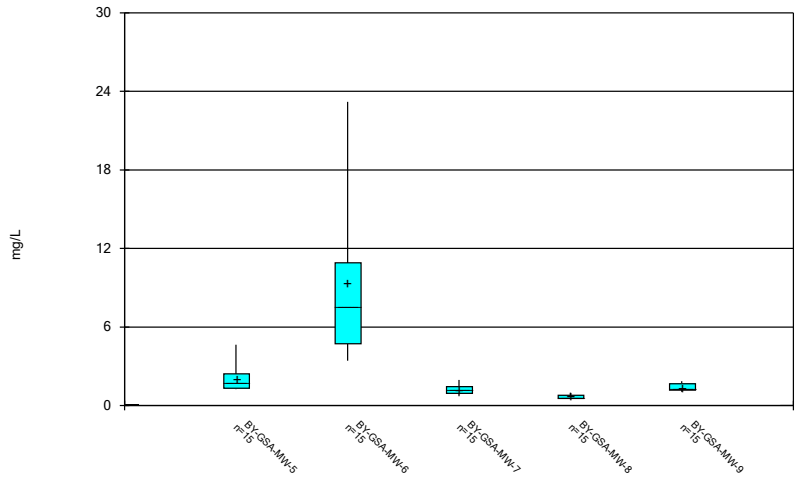


Constituent: Calcium, total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

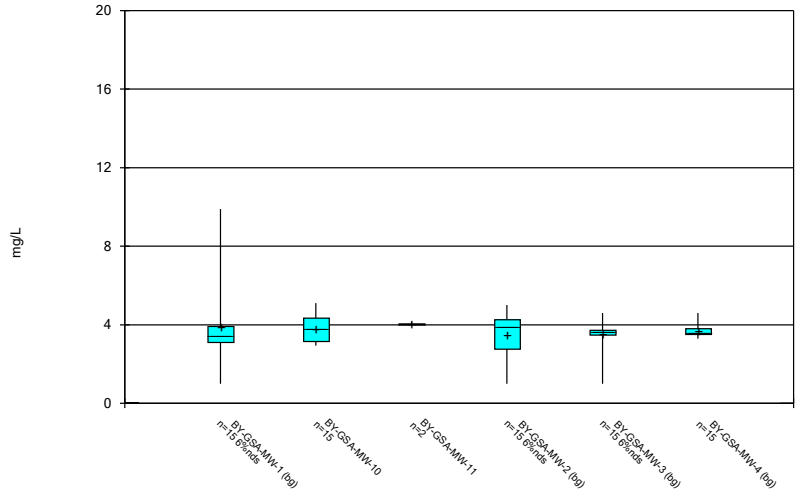


Constituent: Calcium, total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

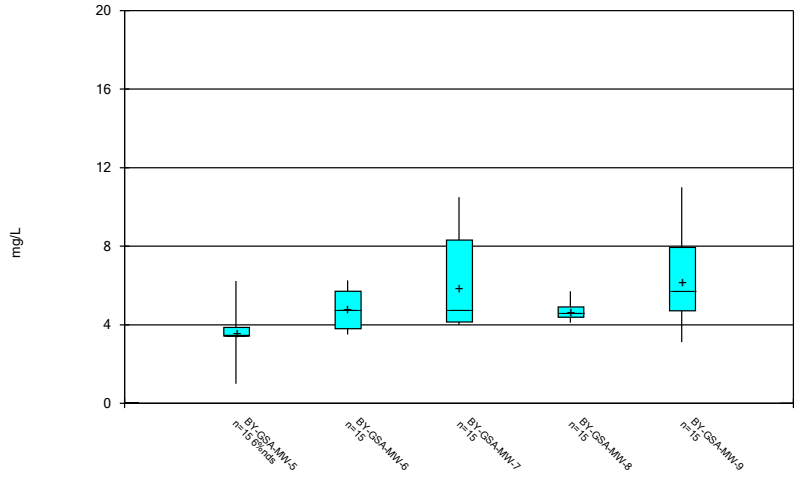


Constituent: Chloride, Total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

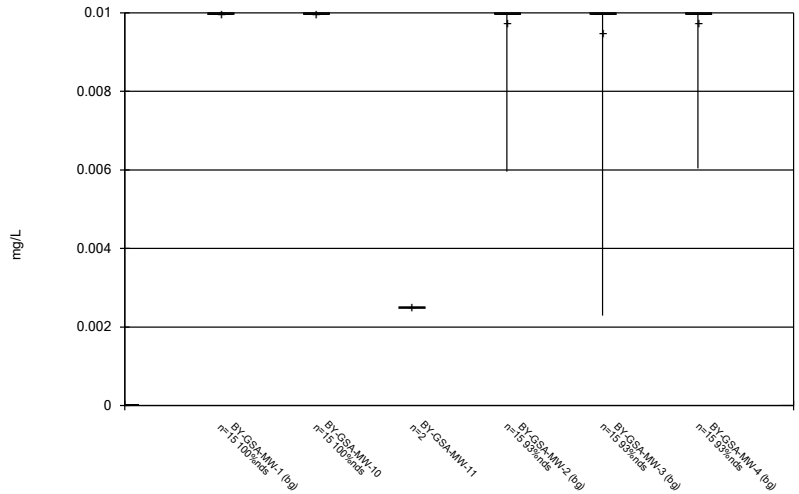


Constituent: Chloride, Total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

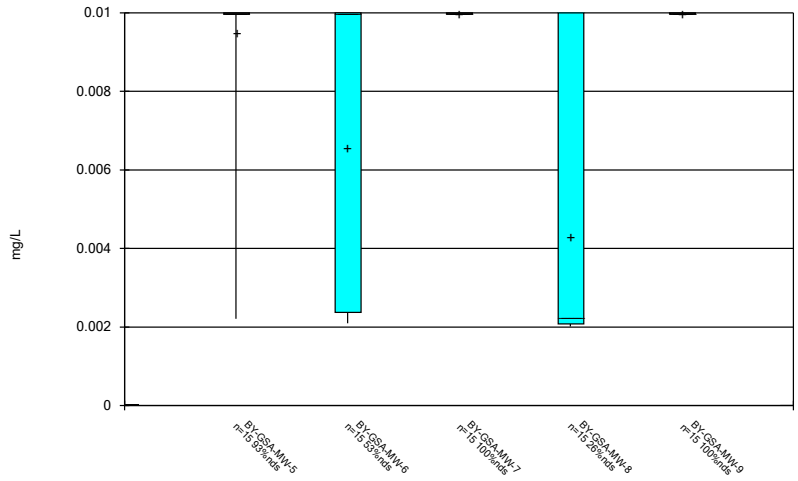


Constituent: Chromium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

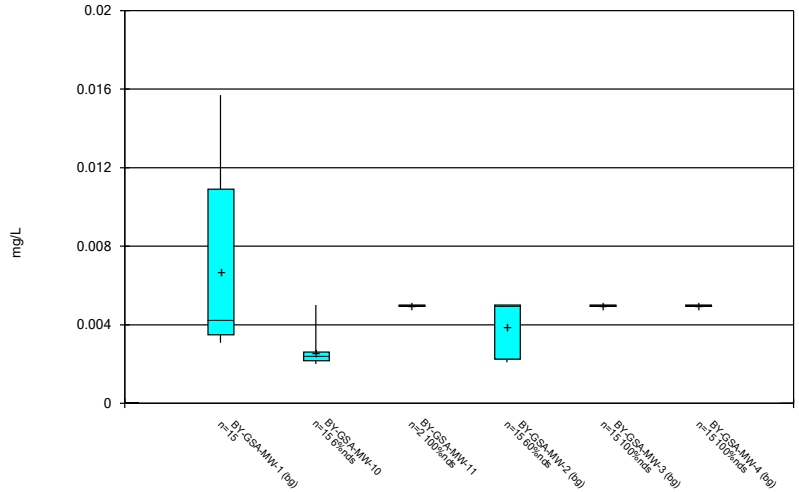


Constituent: Chromium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

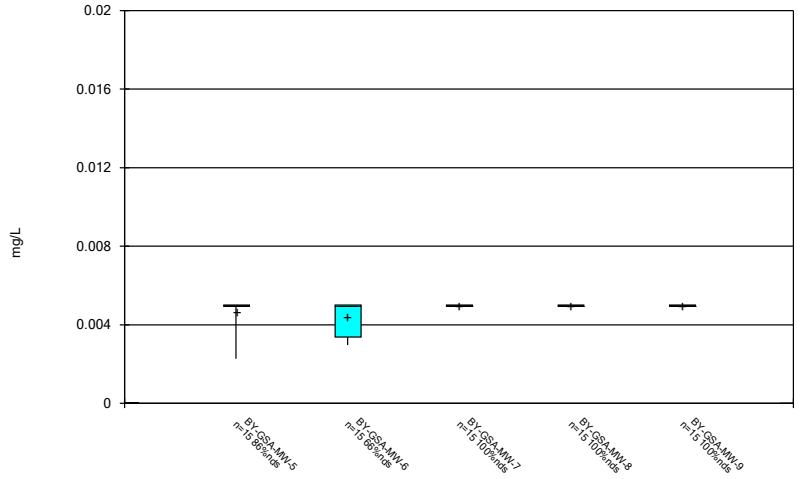


Constituent: Cobalt Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

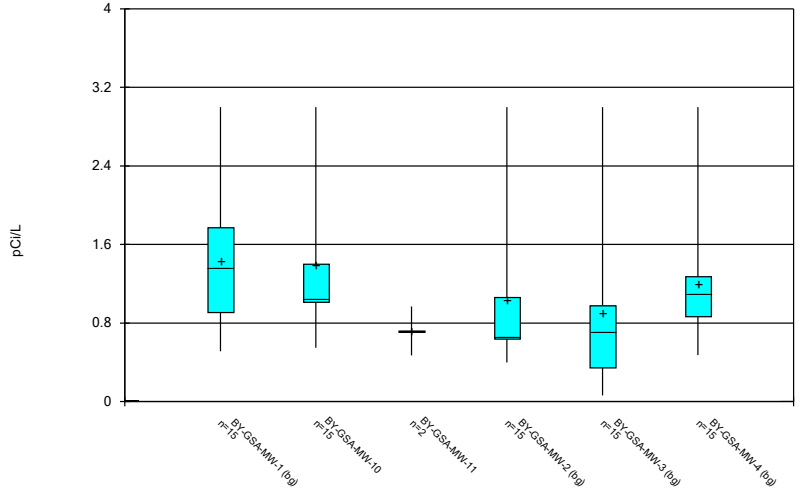


Constituent: Cobalt Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

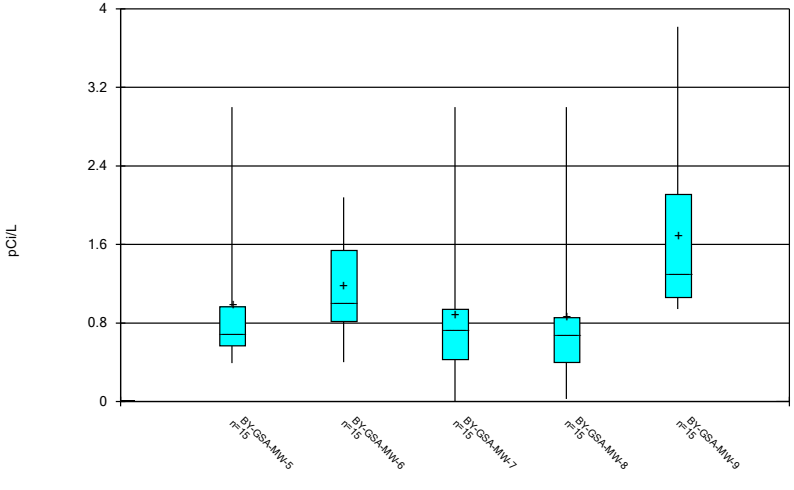


Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

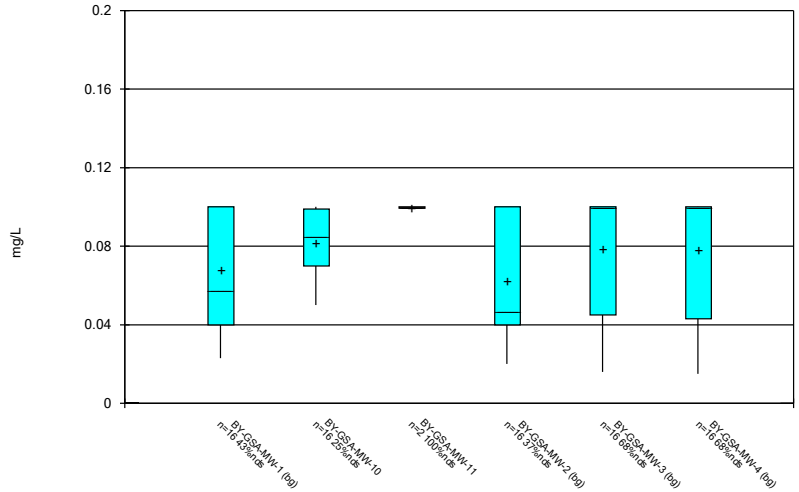


Constituent: Combined Radium 226 + 228 Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

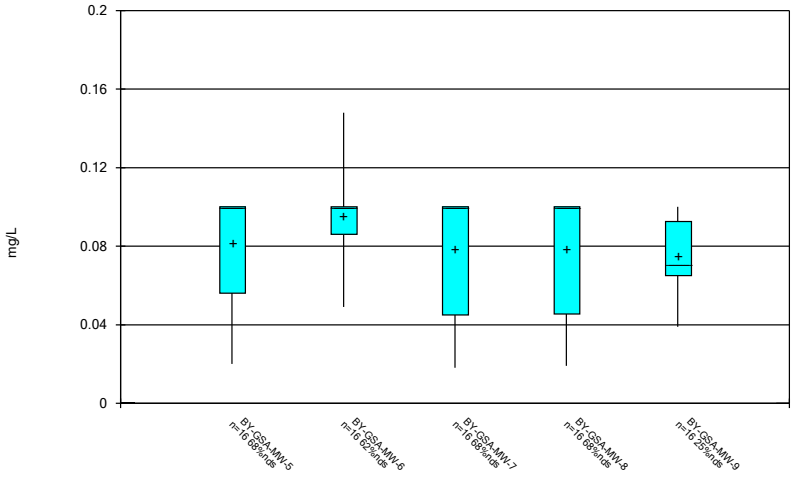


Constituent: Fluoride, total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

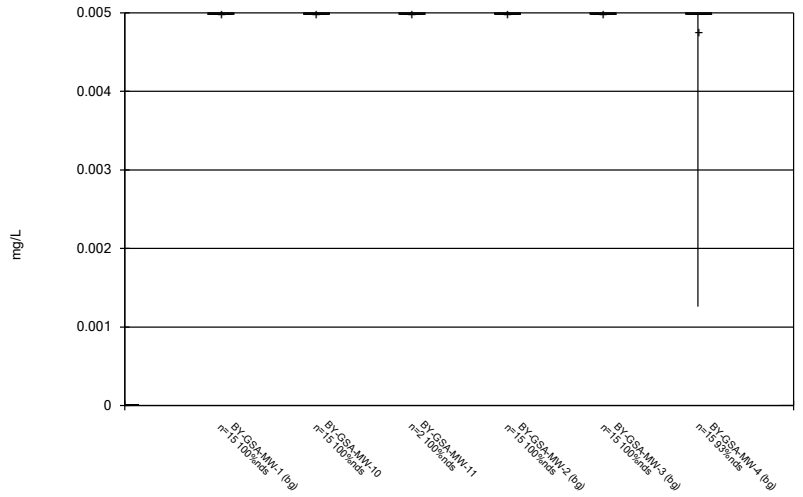


Constituent: Fluoride, total Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

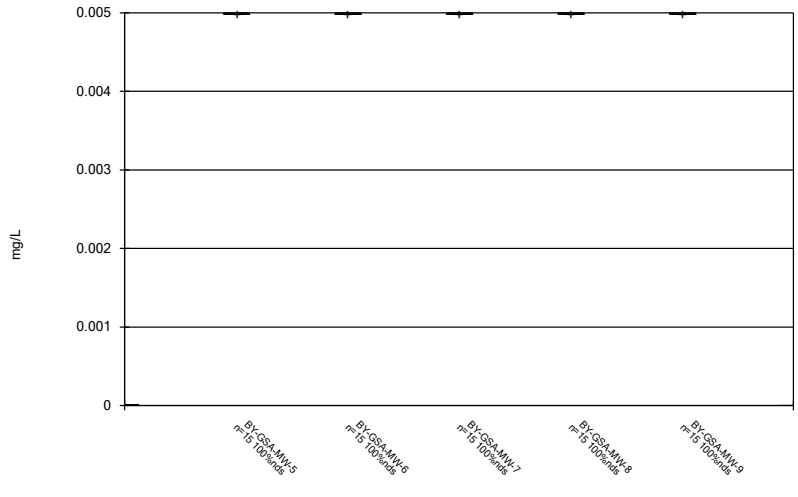


Constituent: Lead Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

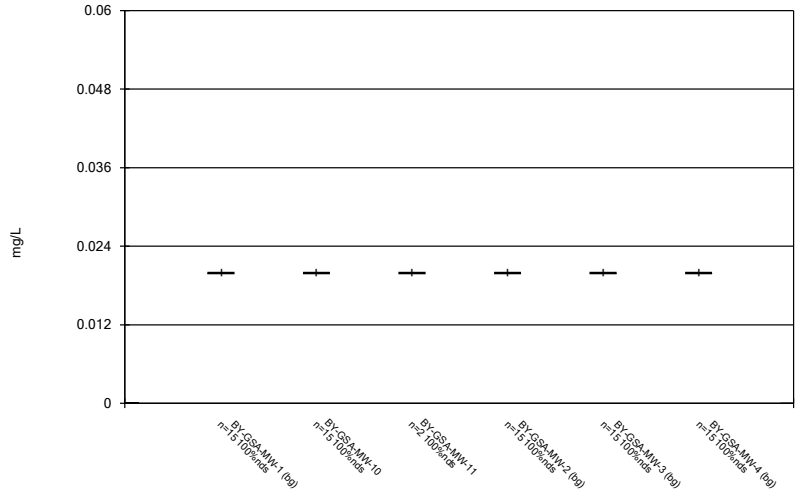


Constituent: Lead Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

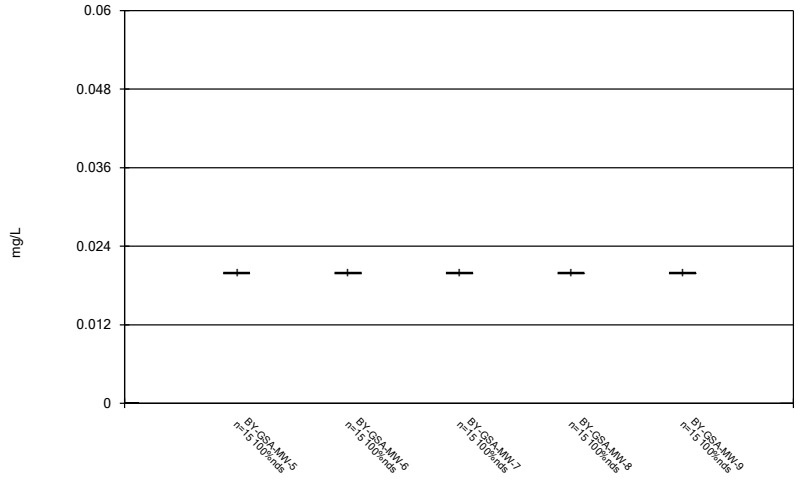


Constituent: Lithium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

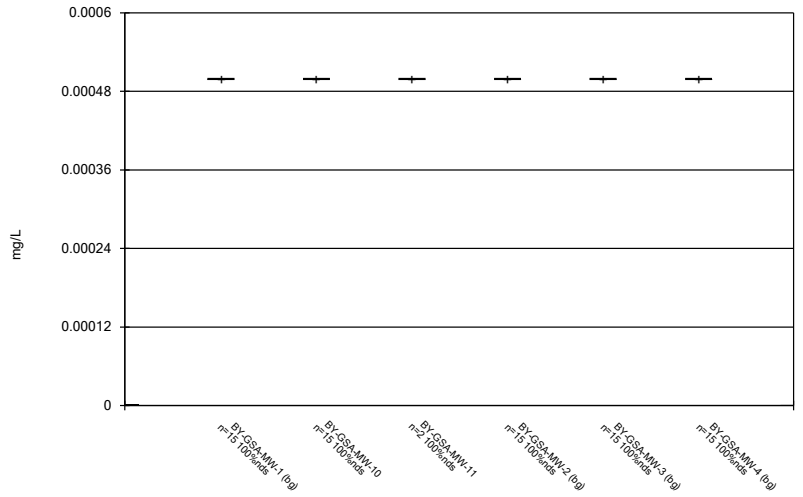


Constituent: Lithium Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

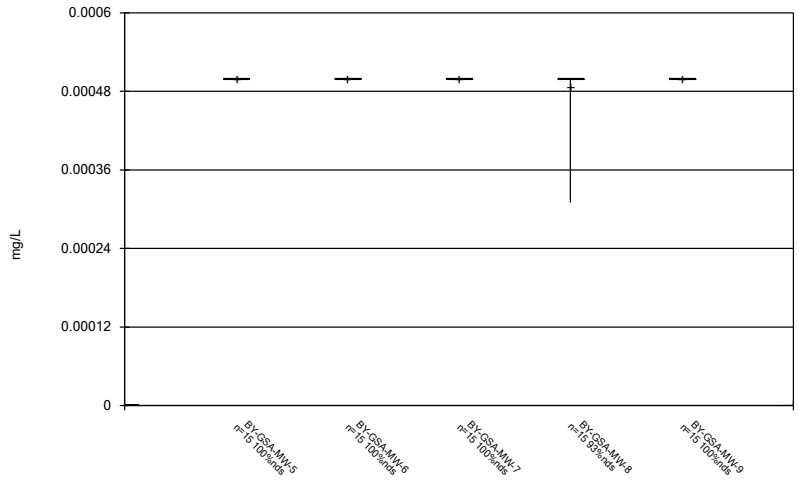


Constituent: Mercury Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

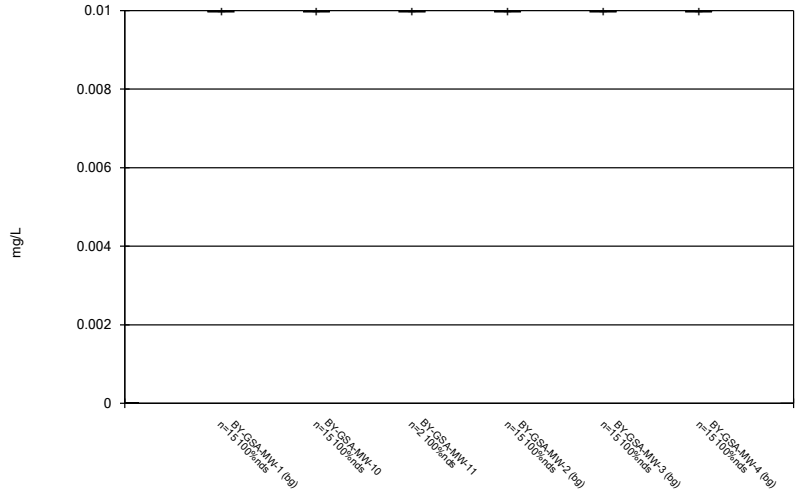


Constituent: Mercury Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

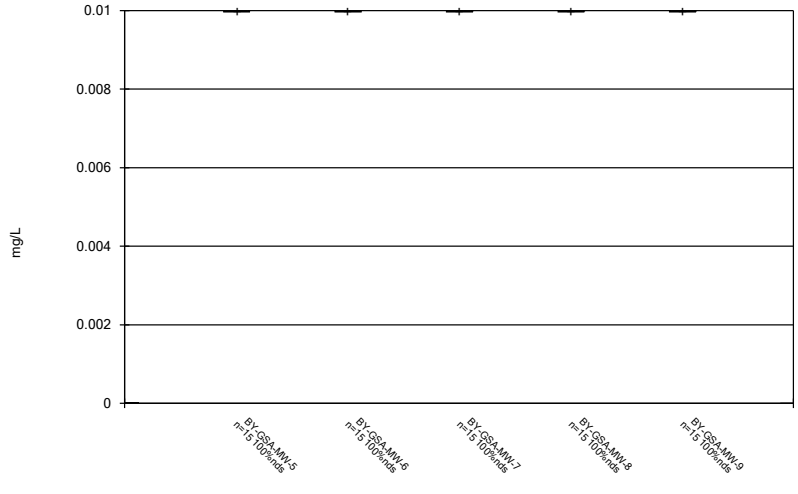


Constituent: Molybdenum Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

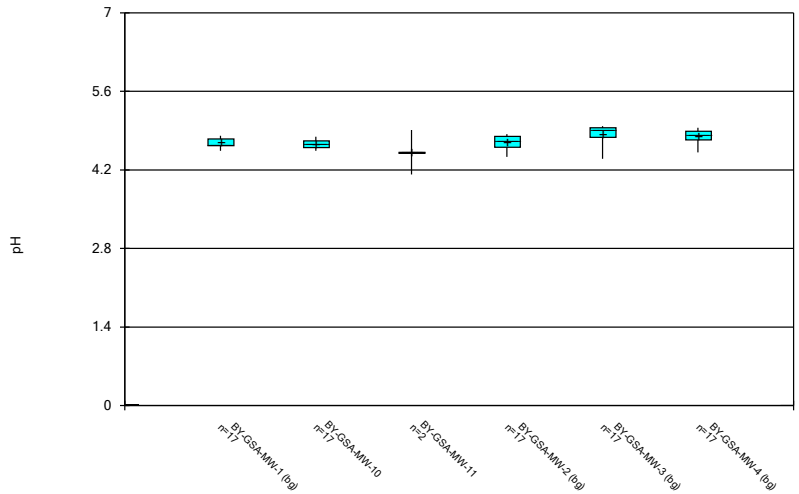


Constituent: Molybdenum Analysis Run 11/5/2020 10:12 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

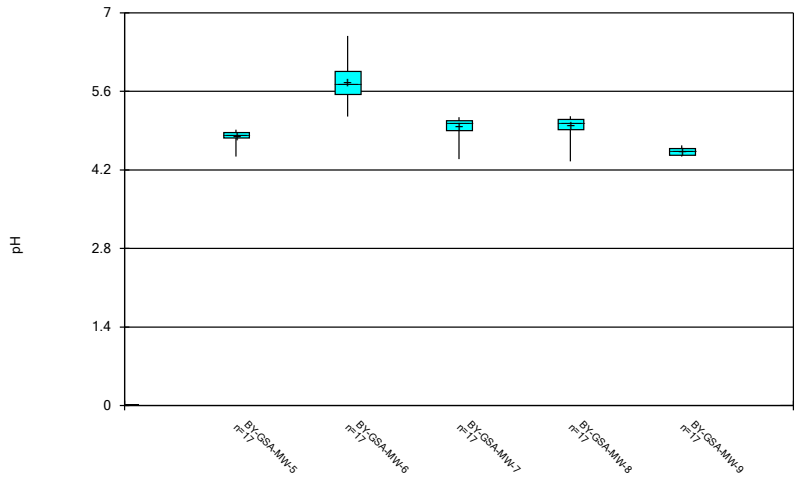


Constituent: pH, Field Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

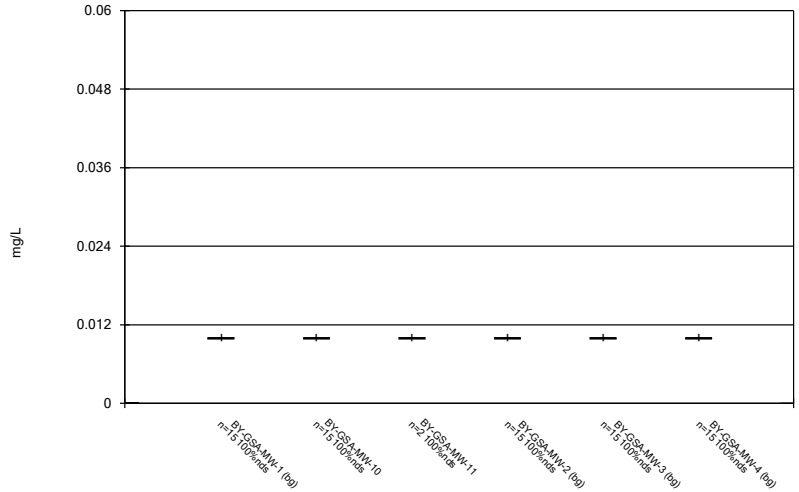


Constituent: pH, Field Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

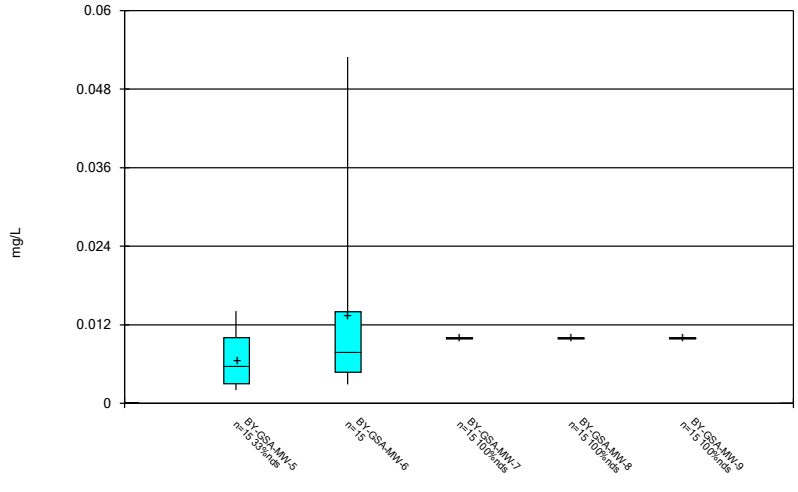


Constituent: Selenium Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

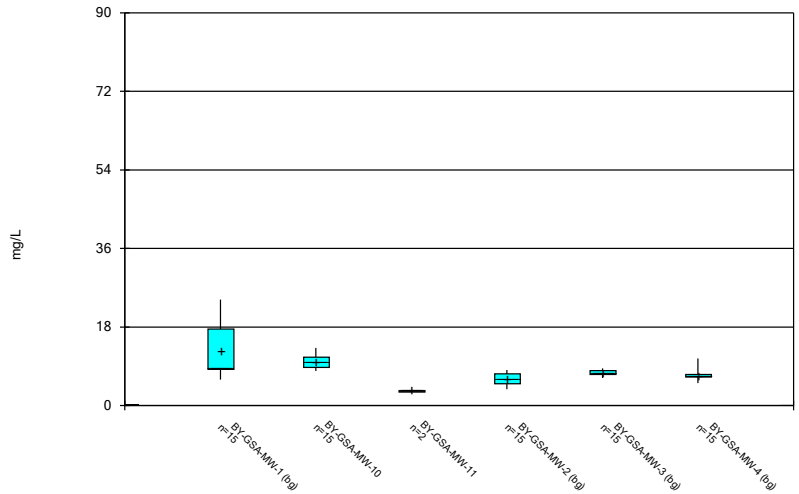


Constituent: Selenium Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

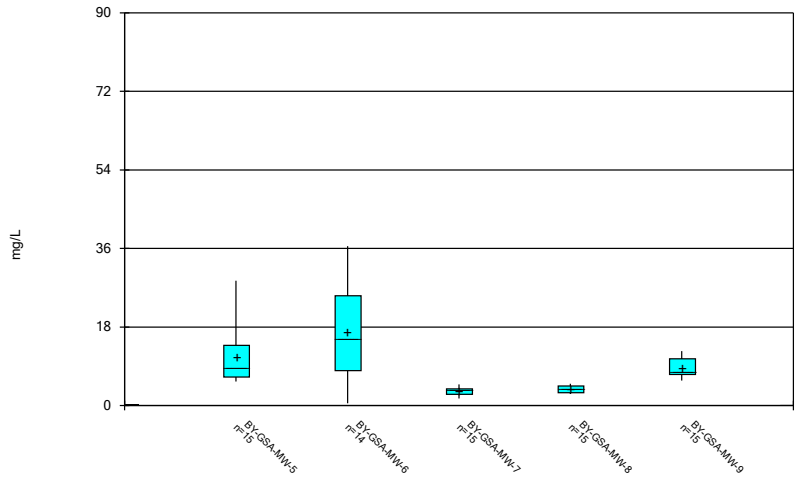


Constituent: Sulfate as SO4 Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

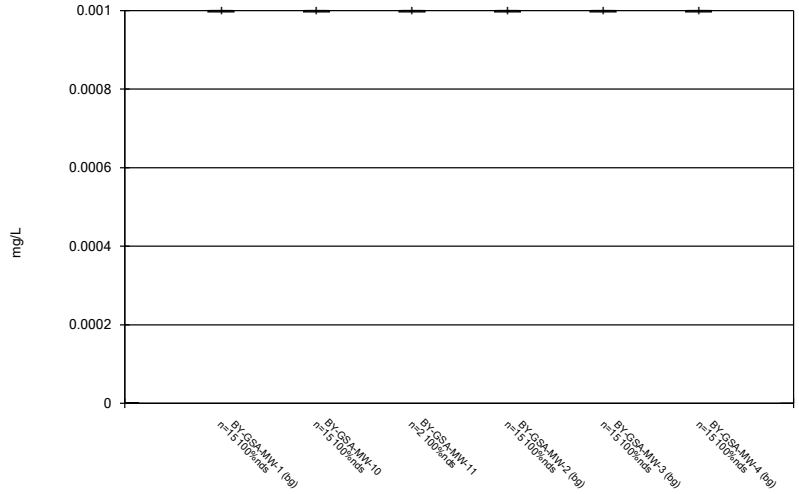


Constituent: Sulfate as SO4 Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

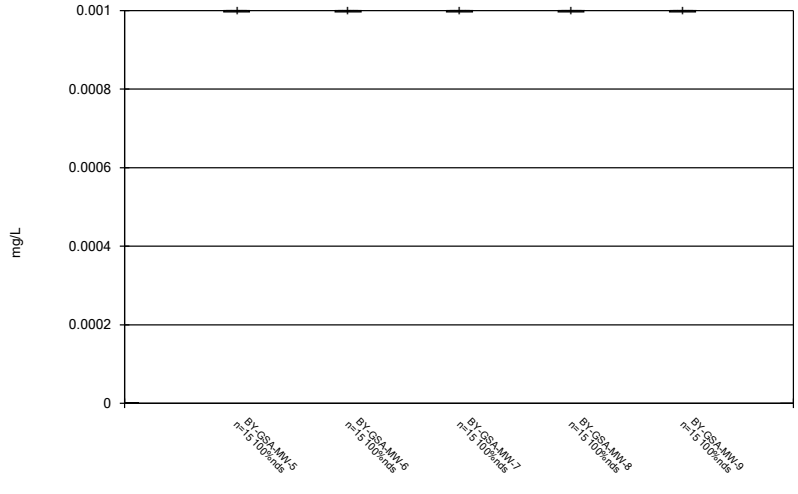


Constituent: Thallium Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

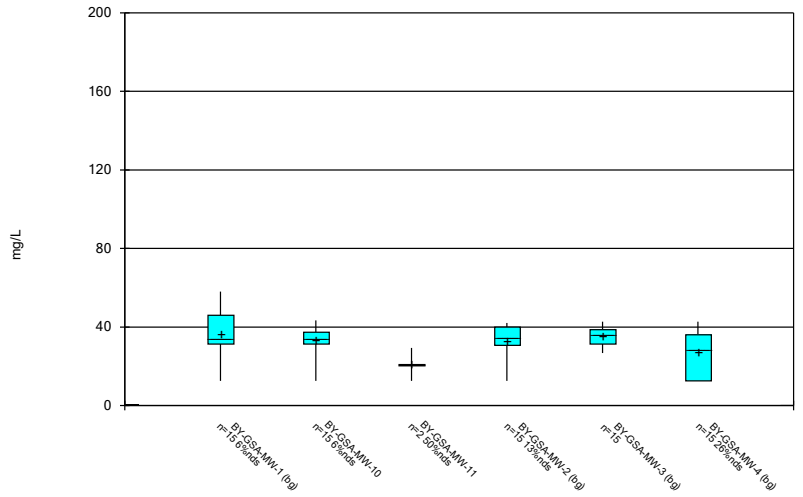
Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot

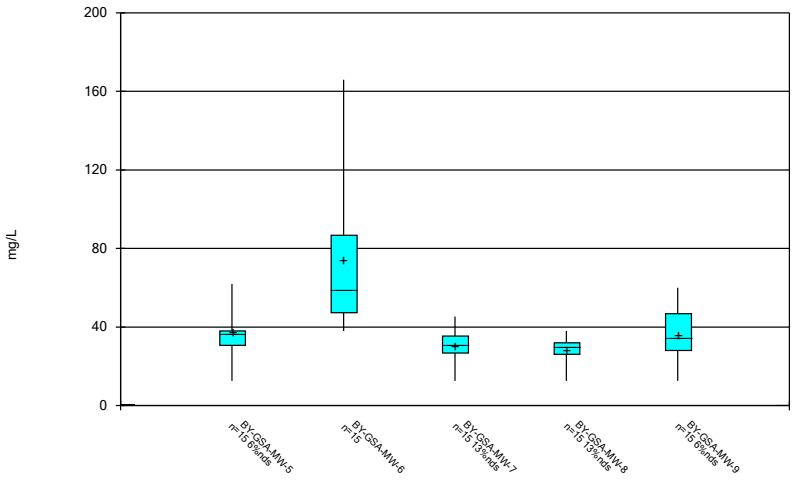


Constituent: Total Dissolved Solids Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 11/5/2020 10:13 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/29/2020, 10:29 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 11/4/2020, 2:22 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	**BY-GSA-MW-5**	**4.818**	**n/a**	**9/8/2020**	**6.23**	**Yes**	**12**	**12.37**	**4.547**	**8.333**	**None**	**x^2**	**0.001254**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

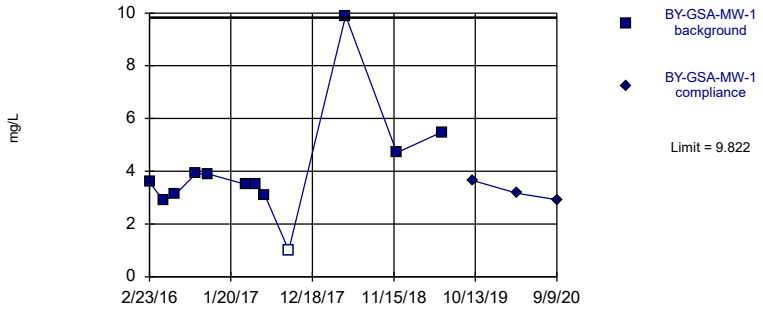
Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 11/4/2020, 2:22 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride (mg/L)	BY-GSA-MW-1	9.822	n/a	9/9/2020	2.92	No	12	1.956	0.4939	8.333	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-10	5.293	n/a	9/9/2020	4.11	No	12	3.697	0.6693	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-2	5.401	n/a	9/9/2020	2.32	No	12	14.81	6.021	8.333	None	x^2	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-3	4.671	n/a	9/9/2020	3.47	No	12	50.05	21.74	8.333	None	x^3	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-4	4.615	n/a	9/8/2020	3.29	No	12	1.938	0.08822	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Chloride (mg/L)	**BY-GSA-MW-5**	**4.818**	**n/a**	**9/8/2020**	**6.23**	**Yes**	**12**	**12.37**	**4.547**	**8.333**	**None**	**x^2**	**0.001254**	**Param Intra 1 of 2**
Chloride (mg/L)	BY-GSA-MW-6	7.317	n/a	9/8/2020	5.71	No	12	4.781	1.063	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-7	9.716	n/a	9/8/2020	8.74	No	12	1.627	0.271	0	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-8	5.7	n/a	9/8/2020	4.61	No	12	4.683	0.4261	0	None	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-9	11.01	n/a	9/9/2020	7.94	No	12	5.775	2.196	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-1	23.3	n/a	9/9/2020	16.5	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	12.55	n/a	9/9/2020	9.28	No	12	9.618	1.229	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-2	9.825	n/a	9/9/2020	6.08	No	12	6.137	1.546	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.12	n/a	9/9/2020	7.13	No	12	7.456	0.6976	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-4	8.365	n/a	9/8/2020	6.52	No	12	6.626	0.7293	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	28.75	n/a	9/8/2020	15.1	No	12	3.268	0.8781	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	45.34	n/a	9/8/2020	17.7	No	11	16.31	11.77	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.264	n/a	9/8/2020	3.59	No	12	3.127	0.8959	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.191	n/a	9/8/2020	4.56	No	12	3.548	0.689	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	11.87	n/a	9/9/2020	10.7	No	12	2.798	0.2716	0	None	sqrt(x)	0.001254	Param Intra 1 of 2

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



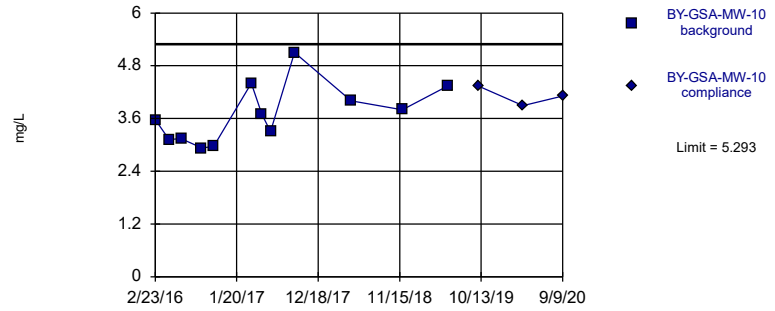
Background Data Summary (based on square root transformation): Mean=1.956, Std. Dev.=0.4939, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8699, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Within Limit

Prediction Limit

Intrawell Parametric



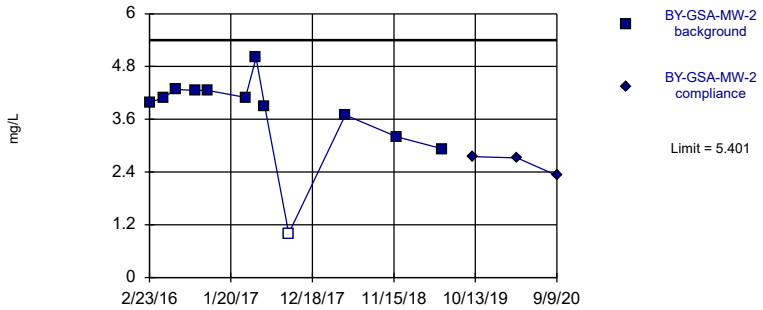
Background Data Summary: Mean=3.697, Std. Dev.=0.6693, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9292, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



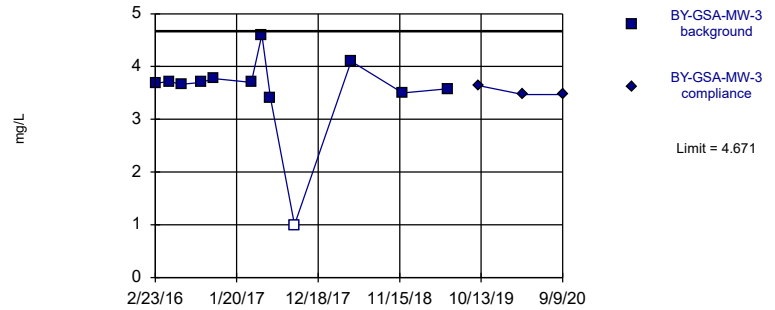
Background Data Summary (based on square transformation): Mean=14.81, Std. Dev.=6.021, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9156, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=50.05, Std. Dev.=21.74, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8422, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

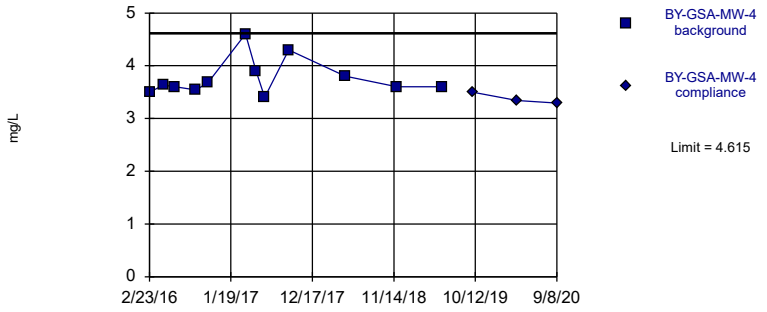
Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.938, Std. Dev.=0.08822, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8171, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

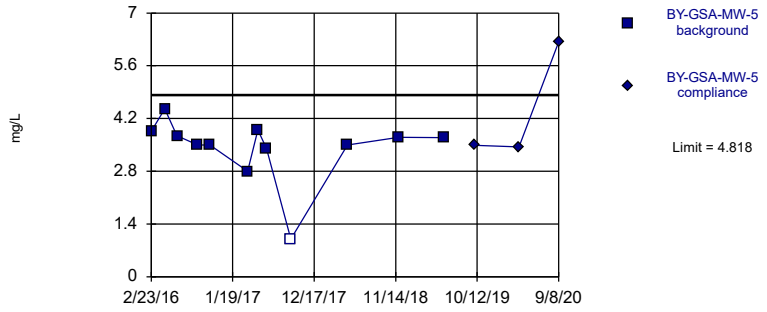
Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=12.37, Std. Dev.=4.547, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8651, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII

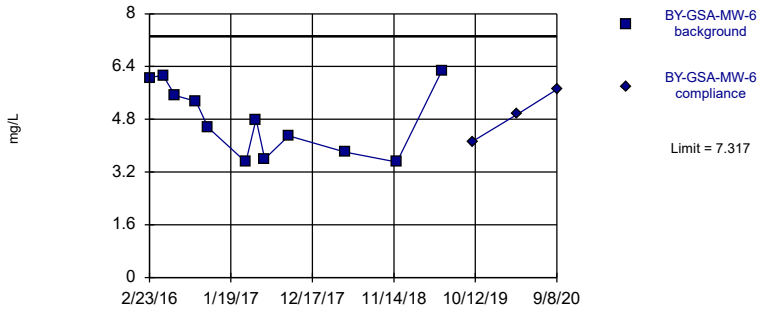
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.781, Std. Dev.=1.063, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.897, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII

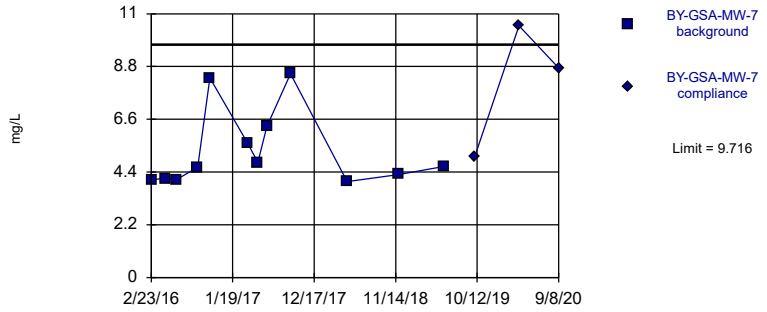
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=1.627, Std. Dev.=0.271, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8109, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII

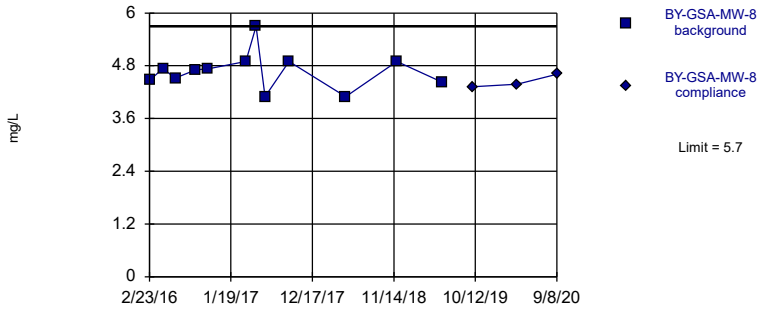
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.683, Std. Dev.=0.4261, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9008, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII

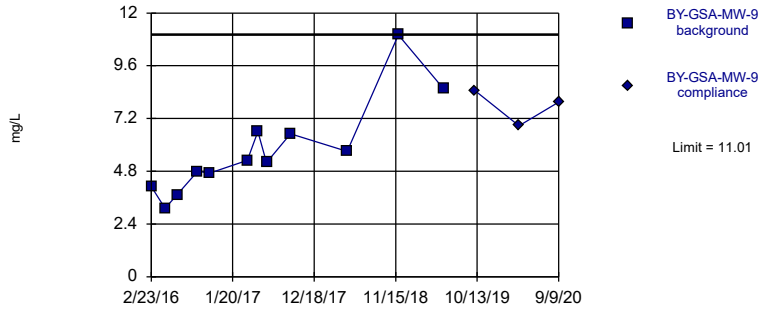
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.775, Std. Dev.=2.196, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8939, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 11/4/2020 2:21 AM View: AIII

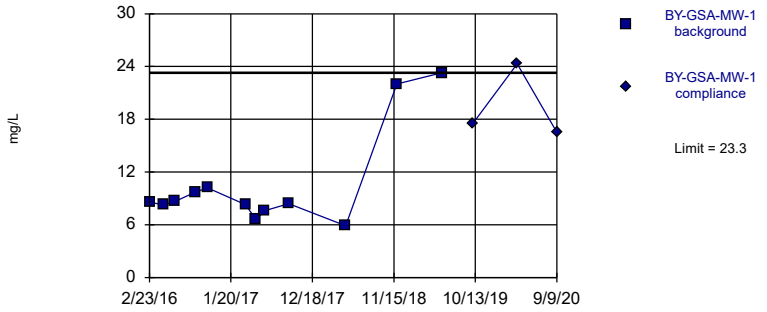
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . 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 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

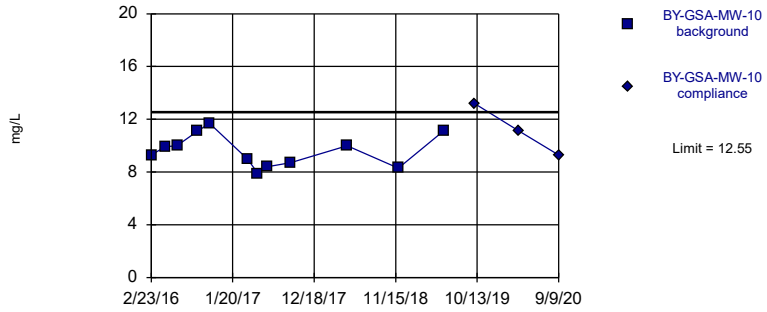
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.618, Std. Dev.=1.229, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9451, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

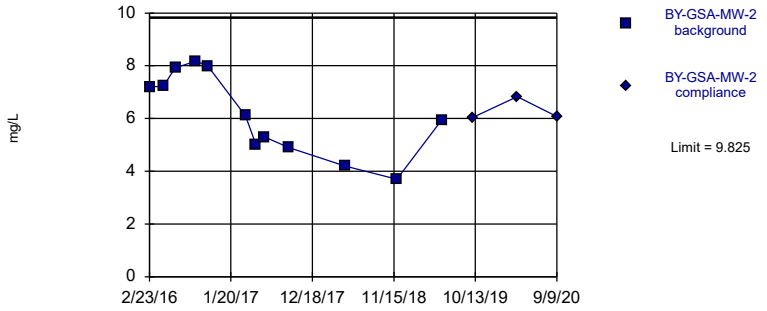
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.137, Std. Dev.=1.546, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9309, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

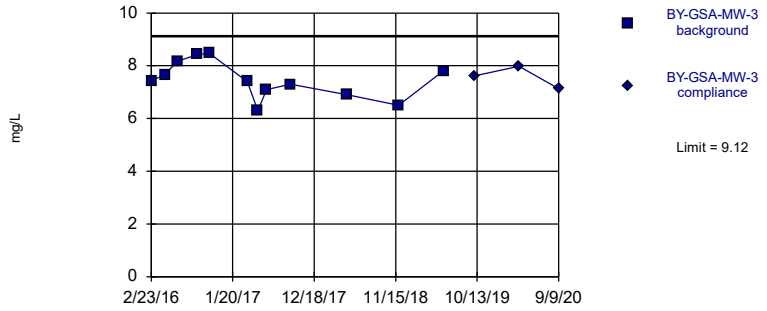
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.456, Std. Dev.=0.6976, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

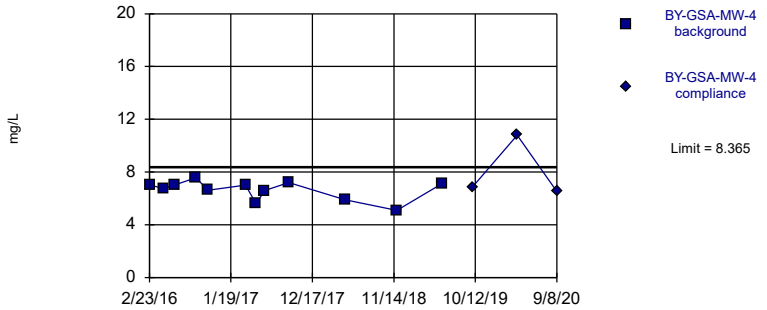
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.626, Std. Dev.=0.7293, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8904, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

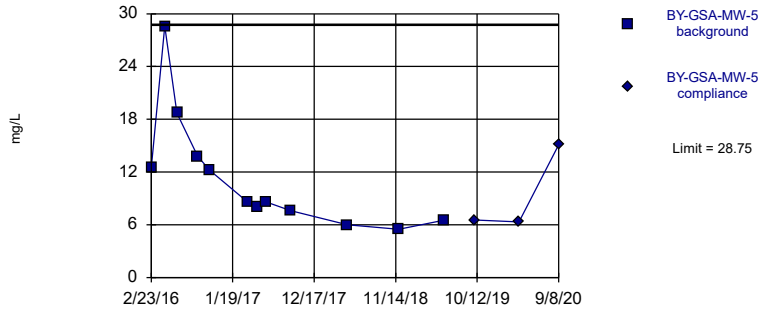
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=3.268, Std. Dev.=0.8781, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.876, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

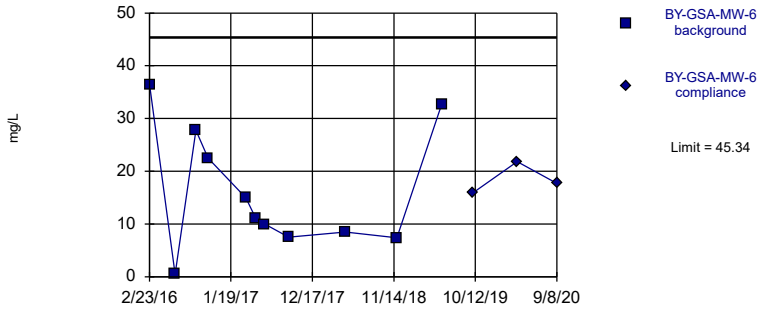
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.31, Std. Dev.=11.77, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9097, critical = 0.792. Kappa = 2.467 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

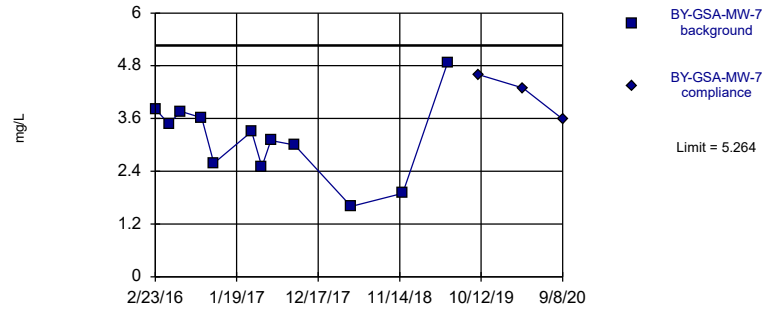
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.127, Std. Dev.=0.8959, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9752, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

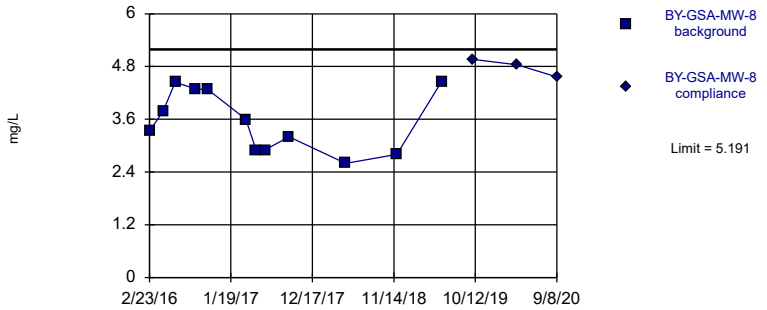
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.548, Std. Dev.=0.689, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

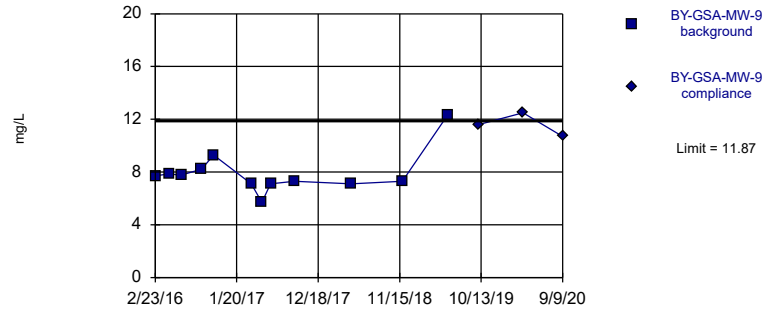
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.798, Std. Dev.=0.2716, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8285, critical = 0.805. Kappa = 2.385 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 11/4/2020 2:21 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1	BY-GSA-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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-2	BY-GSA-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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-3	BY-GSA-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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-4	BY-GSA-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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1	BY-GSA-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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-2	BY-GSA-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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-3	BY-GSA-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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-4	BY-GSA-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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/4/2020 2:22 AM View: AIII

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

FIGURE E.

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 11/2/2020, 11:36 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**	**9/8/2020**	**0.521**	**Yes**	**60**	**n/a**	**n/a**	**80**	**n/a**	**n/a**	**0.0005253**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**9/8/2020**	**0.362**	**Yes**	**60**	**n/a**	**n/a**	**80**	**n/a**	**n/a**	**0.0005253**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**BY-GSA-MW-5**	**1.945**	**n/a**	**9/8/2020**	**3.24**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-GSA-MW-6**	**1.945**	**n/a**	**9/8/2020**	**6.38**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-6**	**4.992**	**4.527**	**9/8/2020**	**5.15**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-7**	**4.992**	**4.527**	**9/8/2020**	**4.39**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-8**	**4.992**	**4.527**	**9/8/2020**	**4.35**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-9**	**4.992**	**4.527**	**9/9/2020**	**4.46**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
TDS (mg/L)	**BY-GSA-MW-6**	**58**	**n/a**	**9/8/2020**	**59.3**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005253**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 11/2/2020, 11:36 AM

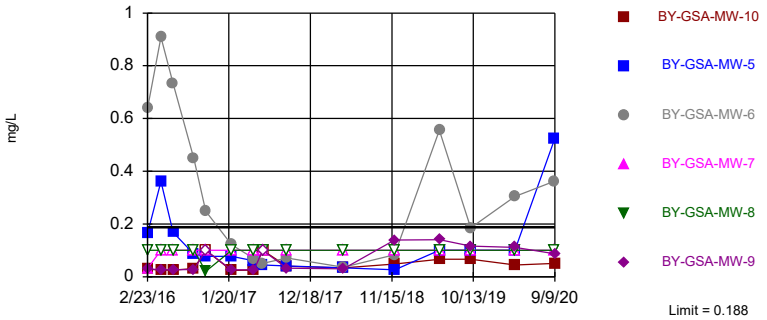
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	9/9/2020	0.0509J	No	60	n/a	n/a	80	n/a	n/a	0.0005253	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-GSA-MW-5**	**0.188**	**n/a**	**9/8/2020**	**0.521**	**Yes**	**60**	**n/a**	**n/a**	**80**	**n/a**	**n/a**	**0.0005253**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-GSA-MW-6**	**0.188**	**n/a**	**9/8/2020**	**0.362**	**Yes**	**60**	**n/a**	**n/a**	**80**	**n/a**	**n/a**	**0.0005253**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	9/8/2020	0.1ND	No	60	n/a	n/a	80	n/a	n/a	0.0005253	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	9/8/2020	0.1ND	No	60	n/a	n/a	80	n/a	n/a	0.0005253	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	9/9/2020	0.0873J	No	60	n/a	n/a	80	n/a	n/a	0.0005253	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-GSA-MW-10	1.945	n/a	9/9/2020	1.1	No	60	1.473	0.277	0	None	No	0.002505	Param Inter 1 of 2
Calcium (mg/L)	**BY-GSA-MW-5**	**1.945**	**n/a**	**9/8/2020**	**3.24**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-GSA-MW-6**	**1.945**	**n/a**	**9/8/2020**	**6.38**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-GSA-MW-7	1.945	n/a	9/8/2020	1.12	No	60	1.473	0.277	0	None	No	0.002505	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-8	1.945	n/a	9/8/2020	0.981	No	60	1.473	0.277	0	None	No	0.002505	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-9	1.945	n/a	9/9/2020	1.79	No	60	1.473	0.277	0	None	No	0.002505	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.1	n/a	9/9/2020	0.1ND	No	64	n/a	n/a	54.69	n/a	n/a	0.0004709	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.1	n/a	9/8/2020	0.1ND	No	64	n/a	n/a	54.69	n/a	n/a	0.0004709	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.1	n/a	9/8/2020	0.1ND	No	64	n/a	n/a	54.69	n/a	n/a	0.0004709	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.1	n/a	9/8/2020	0.1ND	No	64	n/a	n/a	54.69	n/a	n/a	0.0004709	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.1	n/a	9/8/2020	0.1ND	No	64	n/a	n/a	54.69	n/a	n/a	0.0004709	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.1	n/a	9/9/2020	0.1ND	No	64	n/a	n/a	54.69	n/a	n/a	0.0004709	NP Inter (NDs) 1 of 2
pH (pH)	BY-GSA-MW-10	4.992	4.527	9/9/2020	4.58	No	68	4.759	0.1377	0	None	No	0.001253	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-5	4.992	4.527	9/8/2020	4.77	No	68	4.759	0.1377	0	None	No	0.001253	Param Inter 1 of 2
pH (pH)	**BY-GSA-MW-6**	**4.992**	**4.527**	**9/8/2020**	**5.15**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-7**	**4.992**	**4.527**	**9/8/2020**	**4.39**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-8**	**4.992**	**4.527**	**9/8/2020**	**4.35**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (pH)	**BY-GSA-MW-9**	**4.992**	**4.527**	**9/9/2020**	**4.46**	**Yes**	**68**	**4.759**	**0.1377**	**0**	**None**	**No**	**0.001253**	**Param Inter 1 of 2**
TDS (mg/L)	BY-GSA-MW-10	58	n/a	9/9/2020	39.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005253	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	9/8/2020	55.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005253	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-GSA-MW-6**	**58**	**n/a**	**9/8/2020**	**59.3**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005253**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	BY-GSA-MW-7	58	n/a	9/8/2020	42	No	60	n/a	n/a	11.67	n/a	n/a	0.0005253	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	9/8/2020	38	No	60	n/a	n/a	11.67	n/a	n/a	0.0005253	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	9/9/2020	50.7	No	60	n/a	n/a	11.67	n/a	n/a	0.0005253	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.27 . 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 60 background values. 80% NDs. Annual per-constituent alpha = 0.003148. Individual comparison alpha = 0.0005253 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 11/2/2020 11:33 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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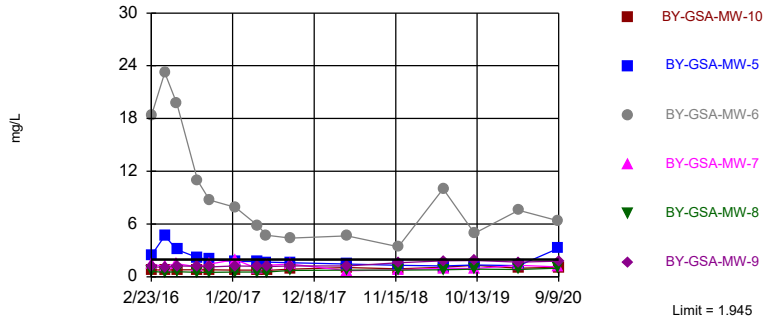
Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1.473, Std. Dev.=0.277, n=60. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.981, critical = 0.945. Kappa = 1.702 (c=7, w=6, 1 of 2, event alpha = 0.1). Report alpha = 0.01494. Individual comparison alpha = 0.002505. Comparing 6 points to limit.

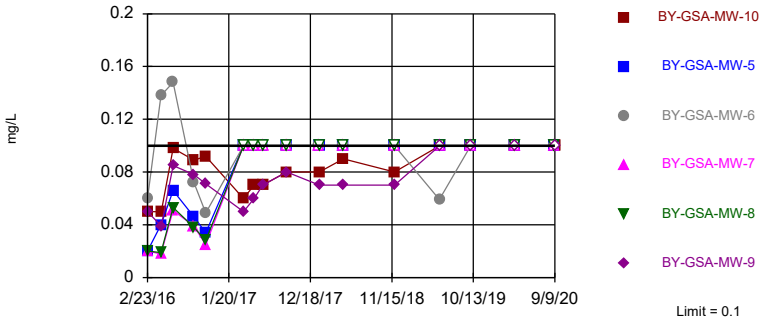
Constituent: Calcium Analysis Run 11/2/2020 11:34 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . 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 64 background values. 54.69% NDs. Annual per-constituent alpha = 0.002822. Individual comparison alpha = 0.0004709 (1 of 2). Comparing 6 points to limit.

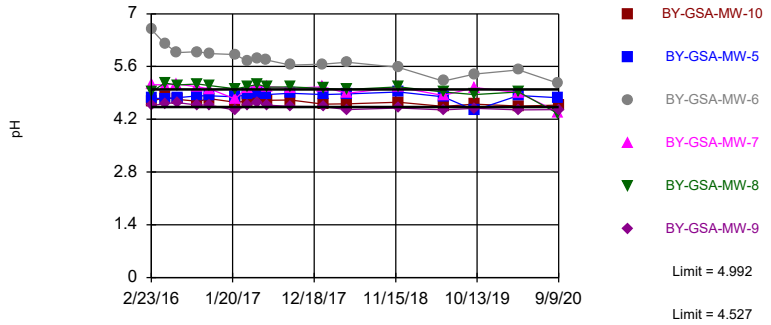
Constituent: Fluoride Analysis Run 11/2/2020 11:34 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Exceeds Limits: BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9

Prediction Limit

Interwell Parametric



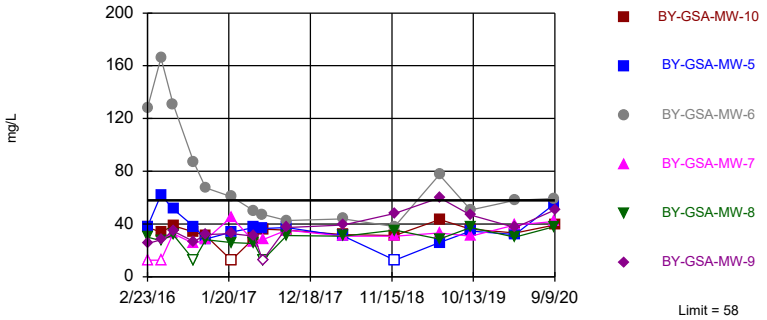
Background Data Summary: Mean=4.759, Std. Dev.=0.1377, n=68. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9782, critical = 0.95. Kappa = 1.691 (c=7, w=6, 1 of 2, event alpha = 0.1). Report alpha = 0.01494. Individual comparison alpha = 0.001253. Comparing 6 points to limit.

Constituent: pH Analysis Run 11/2/2020 11:34 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.
Exceeds Limit: 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 60 background values. 11.67% NDs. Annual per-constituent alpha = 0.003148. Individual comparison alpha = 0.0005253 (1 of 2). Comparing 6 points to limit.

Constituent: TDS Analysis Run 11/2/2020 11:34 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-2 (bg)	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-3 (bg)
2/23/2016	0.0212 (J)	0.0257 (J)	0.163	0.0252 (J)	0.638	0.0314 (J)	0.0294 (J)	<0.1	<0.1
4/18/2016			0.361		0.908	<0.1		<0.1	
4/19/2016	<0.1	<0.1		<0.1			0.0257 (J)		<0.1
6/6/2016	<0.1	<0.1			0.733	<0.1			
6/7/2016			0.169	0.0202 (J)			0.0257 (J)	<0.1	<0.1
8/30/2016	<0.1	<0.1	0.0858 (J)	<0.1	0.448	<0.1	0.0317 (J)	<0.1	<0.1
10/18/2016	<0.1	0.022 (J)	0.0778 (J)	<0.1	0.249	<0.1	<0.1	0.0207 (J)	<0.1
1/30/2017						<0.1	0.0243 (J)		
1/31/2017	<0.1	<0.1	0.077 (J)	<0.1	0.121			<0.1	<0.1
5/2/2017	<0.1	<0.1	0.0602 (J)	<0.1	0.0695 (J)	<0.1	0.0259 (J)	<0.1	<0.1
6/6/2017	<0.1	<0.1	0.0442 (J)	<0.1	0.0509 (J)				<0.1
6/7/2017						<0.1	<0.1	<0.1	
9/12/2017		<0.1			0.0709 (J)	<0.1			
9/13/2017	<0.1		0.0411 (J)	<0.1			0.0394 (J)	<0.1	<0.1
5/1/2018		<0.1		<0.1	0.0365 (J)	<0.1	0.0338 (J)		<0.1
5/2/2018	0.0362 (J)		0.0334 (J)					<0.1	
11/26/2018		<0.1			0.0836 (J)		0.0484 (J)		
11/27/2018	0.11		0.0265 (J)	0.0207 (J)		<0.1		<0.1	<0.1
5/28/2019		<0.1	<0.1		0.556	<0.1		<0.1	
5/29/2019	0.188			<0.1			0.0669 (J)		<0.1
10/2/2019	0.097 (J)	<0.1	<0.1	<0.1	0.186	<0.1	0.0671 (J)	<0.1	<0.1
3/30/2020			<0.1		0.304	<0.1		<0.1	
3/31/2020	0.157	<0.1		<0.1			0.0442 (J)		<0.1
9/8/2020		<0.1	0.521		0.362	<0.1		<0.1	
9/9/2020	0.0999 (J)			<0.1			0.0509 (J)		<0.1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9
2/23/2016	0.0297 (J)
4/18/2016	
4/19/2016	0.0269 (J)
6/6/2016	
6/7/2016	0.0271 (J)
8/30/2016	0.0272 (J)
10/18/2016	<0.1
1/30/2017	0.0269 (J)
1/31/2017	
5/2/2017	0.027 (J)
6/6/2017	
6/7/2017	<0.1
9/12/2017	
9/13/2017	0.032 (J)
5/1/2018	0.0302 (J)
5/2/2018	
11/26/2018	0.139
11/27/2018	
5/28/2019	
5/29/2019	0.141
10/2/2019	0.116
3/30/2020	
3/31/2020	0.112
9/8/2020	
9/9/2020	0.0873 (J)

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-2 (bg)	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-3 (bg)
2/23/2016	1.28	1.42	2.42	1.11	18.3	1.4	0.795	0.618	1.77
4/18/2016			4.65		23.2	1.2		0.505	
4/19/2016	1.19	1.31		1.09			0.761		1.68
6/6/2016	1.19	1.35			19.7	1.48			
6/7/2016			3.1	1.16			0.799	0.587	1.68
8/30/2016	1.11	1.31	2.19	1.08	10.9	1.13	0.788	0.495 (J)	1.62
10/18/2016	1.04	1.22	1.97	1.03	8.74	1.45	0.788	0.503	1.53
1/30/2017						1.95	0.755		
1/31/2017	1.19	1.36	1.73	1.23	7.89			0.554	1.65
5/2/2017	1.05	1.24	1.74	1.28	5.81	0.908	0.763	0.548	1.58
6/6/2017	0.978	1.28	1.66	1.25	4.72				1.55
6/7/2017						1.29	0.706	0.545	
9/12/2017		1.47			4.39	1.44			
9/13/2017	1.14		1.61	1.6			0.873	0.723	1.71
5/1/2018		1.47		1.58	4.66	0.695	1.05		1.76
5/2/2018	1.64		1.44					0.751	
11/26/2018		1.52			3.41		0.922		
11/27/2018	2.01		1.3	1.49		0.798		0.743	1.69
5/28/2019		1.6	1.25		10	0.973		0.789	
5/29/2019	1.85			1.59			1.07		1.74
10/2/2019	1.55	1.7	1.33	1.7	4.94	0.929	1.32	0.882	1.86
3/30/2020			1.26		7.56	1.32		0.841	
3/31/2020	1.96	1.78		1.43			0.98		1.92
9/8/2020		1.94	3.24		6.38	1.12		0.981	
9/9/2020	1.43			1.5			1.1		1.97

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9
2/23/2016	1.15
4/18/2016	
4/19/2016	1.04
6/6/2016	
6/7/2016	1.22
8/30/2016	1.18
10/18/2016	1.12
1/30/2017	1.23
1/31/2017	
5/2/2017	1.2
6/6/2017	
6/7/2017	1.17
9/12/2017	
9/13/2017	1.25
5/1/2018	1.25
5/2/2018	
11/26/2018	1.61
11/27/2018	
5/28/2019	
5/29/2019	1.8
10/2/2019	1.85
3/30/2020	
3/31/2020	1.67
9/8/2020	
9/9/2020	1.79

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-2 (bg)	BY-GSA-MW-7	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.03 (J)	0.02 (J)	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)	0.05 (J)	0.02 (J)	0.05 (J)
4/18/2016			0.04 (J)	0.138 (J)		0.018 (J)		0.019 (J)	
4/19/2016	0.023 (J)	0.016 (J)			0.021 (J)		0.05 (J)		0.039 (J)
6/6/2016	0.062 (J)			0.148 (J)		0.051 (J)			
6/7/2016		0.052 (J)	0.066 (J)		0.06 (J)		0.098 (J)	0.053 (J)	0.085 (J)
8/30/2016	0.053 (J)	0.038 (J)	0.046 (J)	0.072 (J)	0.05 (J)	0.039 (J)	0.089 (J)	0.038 (J)	0.078 (J)
10/18/2016	0.042 (J)	0.03 (J)	0.034 (J)	0.049 (J)	0.04 (J)	0.025 (J)	0.092 (J)	0.028 (J)	0.071 (J)
3/20/2017	<0.1	<0.1			<0.1				
3/21/2017			<0.1	<0.1		<0.1	0.06 (J)	<0.1	0.05 (J)
5/2/2017	0.04 (J)	<0.1	<0.1	<0.1	0.04 (J)	<0.1	0.07 (J)	<0.1	0.06 (J)
6/6/2017	<0.1	<0.1	<0.1	<0.1	0.04 (J)				
6/7/2017						<0.1	0.07 (J)	<0.1	0.07 (J)
9/12/2017				<0.1		<0.1			
9/13/2017	0.04 (J)	<0.1	<0.1		0.043 (J)		0.08 (J)	<0.1	0.08 (J)
1/22/2018				<0.1		<0.1			
1/23/2018	<0.1	<0.1			0.04 (J)		0.08 (J)		0.07 (J)
1/24/2018			<0.1					<0.1	
5/1/2018		<0.1		<0.1	0.04 (J)	<0.1	0.09 (J)		0.07 (J)
5/2/2018	0.04 (J)		<0.1					<0.1	
11/26/2018				<0.1			0.08 (J)		0.07 (J)
11/27/2018	<0.1	<0.1	<0.1		<0.1	<0.1		<0.1	
5/28/2019			<0.1	0.0591 (J)		<0.1		<0.1	
5/29/2019	0.0502 (J)	<0.1			<0.1		<0.1		<0.1
10/2/2019	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
3/30/2020			<0.1	<0.1		<0.1		<0.1	
3/31/2020	<0.1	<0.1			<0.1		<0.1		<0.1
9/8/2020			<0.1	<0.1		<0.1		<0.1	
9/9/2020	<0.1	<0.1			<0.1		<0.1		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-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	<0.1
3/21/2017	
5/2/2017	<0.1
6/6/2017	<0.1
6/7/2017	
9/12/2017	<0.1
9/13/2017	
1/22/2018	
1/23/2018	<0.1
1/24/2018	
5/1/2018	<0.1
5/2/2018	
11/26/2018	<0.1
11/27/2018	
5/28/2019	<0.1
5/29/2019	
10/2/2019	<0.1
3/30/2020	
3/31/2020	<0.1
9/8/2020	<0.1
9/9/2020	

Prediction Limit

Constituent: pH (pH) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-5	BY-GSA-MW-3 (bg)	BY-GSA-MW-6	BY-GSA-MW-2 (bg)	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-10	BY-GSA-MW-9
2/23/2016	4.62	4.76	4.96	6.59	4.79	5.12	4.92	4.67	4.56
4/18/2016		4.75		6.21		5.11	5.16		
4/19/2016	4.74		4.94		4.84			4.79	4.62
6/6/2016	4.65			5.97		5.14			
6/7/2016		4.77	4.96		4.81		5.11	4.73	4.64
8/30/2016	4.64	4.82	4.92	5.99	4.76	5.06	5.14	4.68	4.58
10/18/2016	4.74	4.82	4.98	5.94	4.84	5.01	5.09	4.75	4.58
1/30/2017						4.74		4.65	4.44
1/31/2017	4.54	4.8	4.74	5.92	4.6		5.01		
3/20/2017	4.67		4.9		4.71				
3/21/2017		4.86		5.74		5.04	5.07	4.68	4.57
5/2/2017	4.79	4.89	4.98	5.82	4.8	5.08	5.13	4.75	4.64
6/6/2017	4.76	4.86	4.94	5.77	4.72				
6/7/2017						5.07	5.05	4.7	4.58
9/12/2017				5.64		5.03			
9/13/2017	4.81	4.89	4.93		4.71		5.06	4.71	4.54
1/22/2018				5.66		5.06			
1/23/2018	4.79		4.91		4.67			4.6	4.53
1/24/2018		4.86					5.02		
5/1/2018			4.87	5.71	4.61	4.89		4.61	4.46
5/2/2018	4.62	4.87					4.99		
11/26/2018				5.58				4.65	4.5
11/27/2018	4.73	4.92	4.94		4.72	5.05	5.06		
5/28/2019		4.8		5.21		4.83	4.92		
5/29/2019	4.65		4.8		4.58			4.54	4.45
10/2/2019	4.57	4.44	4.52	5.4	4.43	5.04	4.86	4.6	4.49
3/30/2020		4.83		5.51		4.91	4.92		
3/31/2020	4.64		4.4		4.6			4.55	4.45
9/8/2020		4.77		5.15		4.39	4.35		
9/9/2020	4.65		4.76		4.67			4.58	4.46

Prediction Limit

Constituent: pH (pH) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-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	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-5	BY-GSA-MW-2 (bg)	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-10	BY-GSA-MW-8	BY-GSA-MW-3 (bg)
2/23/2016	26.7	<25	38	30.7	128	<25	37.3	30	40
4/18/2016			62		166	<25		27.3	
4/19/2016	<25	<25		<25			34		32
6/6/2016	32.7	28.7			131	32.7			
6/7/2016			51.3	35.3			38.7	32	38.7
8/30/2016	33.3	25.3	38	27.3	86.7	25.3	34	<25	31.3
10/18/2016	27.3	<25	28.7	<25	67.3	28	31.3	28	26.7
1/30/2017						45.3	<25		
1/31/2017	32	26	34	32.7	60.7			26	30
5/2/2017	31.3	<25	37.3	30.7	50	26.7	29.3	25.3	30.7
6/6/2017	35.3	42.7	36.7	34.7	47.3				32.7
6/7/2017						28	36	<25	
9/12/2017		26.7			42.7	35.3			
9/13/2017	36.7		37.3	39.3			35.3	31.3	38
5/1/2018		34.7		42	44	30.7	32		35.3
5/2/2018	34		30.7					30.7	
11/26/2018		32.7			38		31.3		
11/27/2018	50.7		<25	31.3		30.7		35.3	36
5/28/2019		31.3	26		77.3	33.3		28.7	
5/29/2019	58			40			43.3		37.3
10/2/2019	46	36	34.7	41.3	50.7	30.7	36	37.3	36.7
3/30/2020			32		58	39.3		30	
3/31/2020	53.3	36.7		40			33.3		39.3
9/8/2020		39.3	55.3		59.3	42		38	
9/9/2020	42			40.7			39.3		42.7

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/2/2020 11:36 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9
2/23/2016	25.3
4/18/2016	
4/19/2016	28
6/6/2016	
6/7/2016	34.7
8/30/2016	26.7
10/18/2016	32
1/30/2017	32.7
1/31/2017	
5/2/2017	30.7
6/6/2017	
6/7/2017	<25
9/12/2017	
9/13/2017	37.3
5/1/2018	39.3
5/2/2018	
11/26/2018	48
11/27/2018	
5/28/2019	
5/29/2019	60
10/2/2019	46.7
3/30/2020	
3/31/2020	37.3
9/8/2020	
9/9/2020	50.7

FIGURE F.

Trend Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 11/2/2020, 11:57 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**BY-GSA-MW-2 (bg)**	**0.1427**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-GSA-MW-4 (bg)**	**0.1144**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-GSA-MW-5**	**-0.2798**	**-67**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**BY-GSA-MW-2 (bg)**	**-0.4294**	**-62**	**-53**	**Yes**	**15**	**6.667**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-2 (bg)**	**-0.06003**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-3 (bg)**	**-0.04822**	**-69**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-6**	**-0.2192**	**-118**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-7**	**-0.05353**	**-68**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-8**	**-0.06449**	**-78**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-9**	**-0.0365**	**-72**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-1 (bg)**	**6.385**	**71**	**53**	**Yes**	**15**	**6.667**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-2 (bg)**	**3.19**	**60**	**53**	**Yes**	**15**	**13.33**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-4 (bg)**	**3.921**	**63**	**53**	**Yes**	**15**	**26.67**	**n/a**	**n/a**	**0.01**	**NP**

Trend Test - All Results

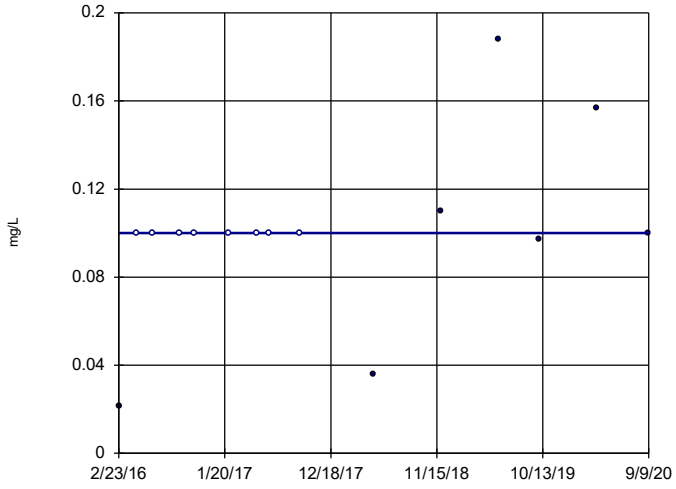
Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 11/2/2020, 11:57 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-1 (bg)	0	17	53	No	15	53.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-2 (bg)	0	17	53	No	15	80	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-3 (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-4 (bg)	0	19	53	No	15	86.67	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-5	-0.01809	-22	-53	No	15	20	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	-0.08164	-27	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-1 (bg)	0.1131	30	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-2 (bg)**	**0.1427**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-GSA-MW-3 (bg)	0.06599	44	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-4 (bg)**	**0.1144**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-GSA-MW-5**	**-0.2798**	**-67**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-GSA-MW-6	-2.817	-53	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-1 (bg)	0.006827	2	53	No	15	6.667	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-GSA-MW-2 (bg)**	**-0.4294**	**-62**	**-53**	**Yes**	**15**	**6.667**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-GSA-MW-3 (bg)	-0.04617	-31	-53	No	15	6.667	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-4 (bg)	-0.05577	-27	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-5	-0.02005	-18	-53	No	15	6.667	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-1 (bg)	0	-3	-63	No	17	0	n/a	n/a	0.01	NP
pH (pH)	**BY-GSA-MW-2 (bg)**	**-0.06003**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-3 (bg)**	**-0.04822**	**-69**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	BY-GSA-MW-4 (bg)	-0.03765	-47	-63	No	17	0	n/a	n/a	0.01	NP
pH (pH)	**BY-GSA-MW-6**	**-0.2192**	**-118**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-7**	**-0.05353**	**-68**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-8**	**-0.06449**	**-78**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-9**	**-0.0365**	**-72**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-1 (bg)**	**6.385**	**71**	**53**	**Yes**	**15**	**6.667**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-2 (bg)**	**3.19**	**60**	**53**	**Yes**	**15**	**13.33**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-GSA-MW-3 (bg)	1.858	35	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-GSA-MW-4 (bg)**	**3.921**	**63**	**53**	**Yes**	**15**	**26.67**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-GSA-MW-6	-17.07	-49	-53	No	15	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 17
critical = 53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Boron Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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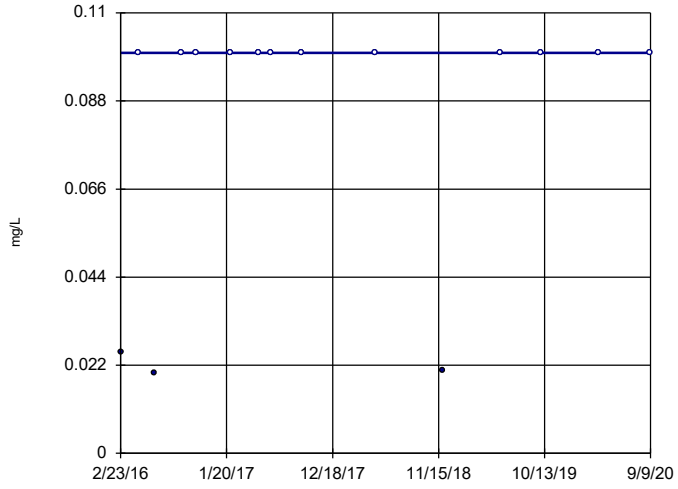
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 17
critical = 53

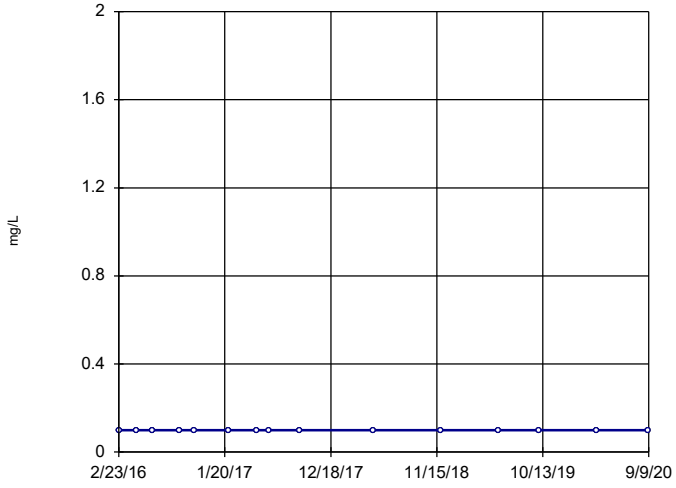
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Boron Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 0
critical = 53

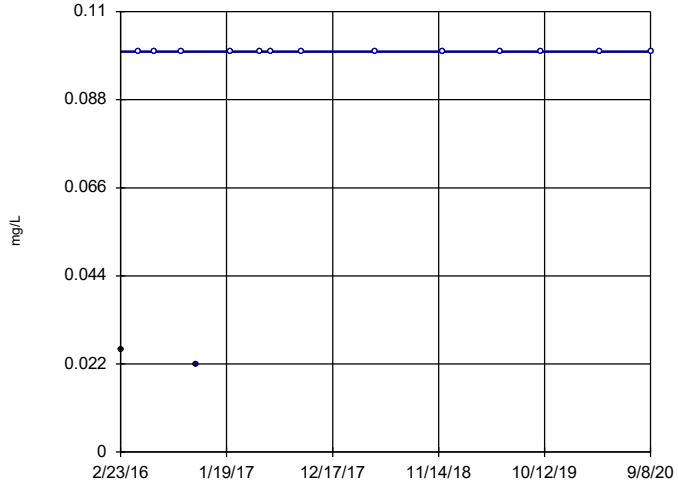
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Boron Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 19
critical = 53

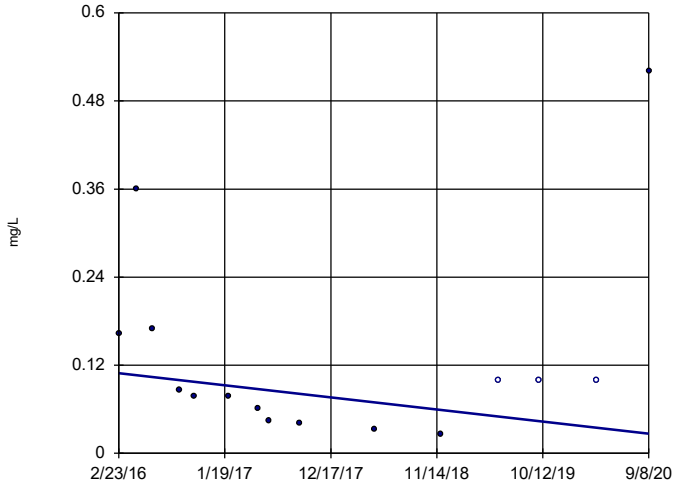
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Boron Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-5



n = 15

Slope = -0.01809 units per year.

Mann-Kendall statistic = -22 critical = -53

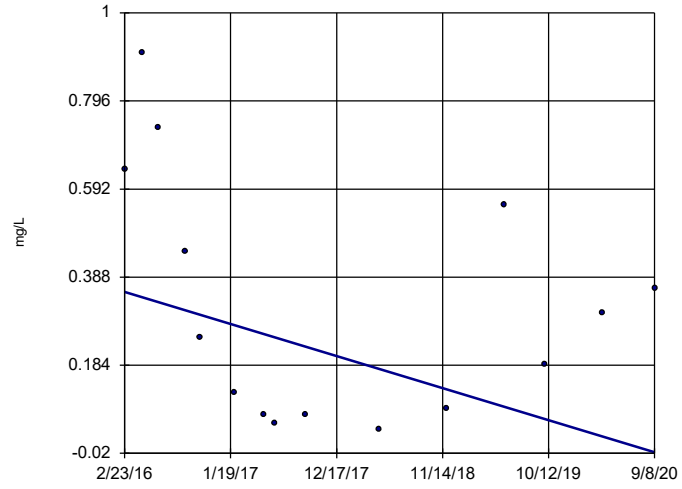
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 15

Slope = -0.08164 units per year.

Mann-Kendall statistic = -27 critical = -53

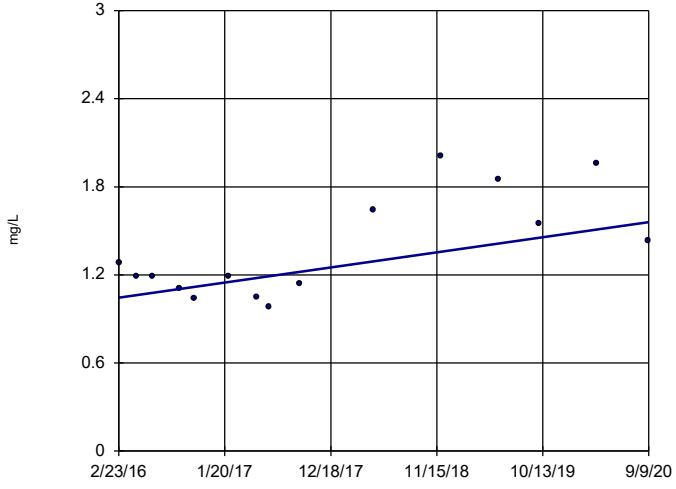
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 0.1131 units per year.

Mann-Kendall statistic = 30 critical = 53

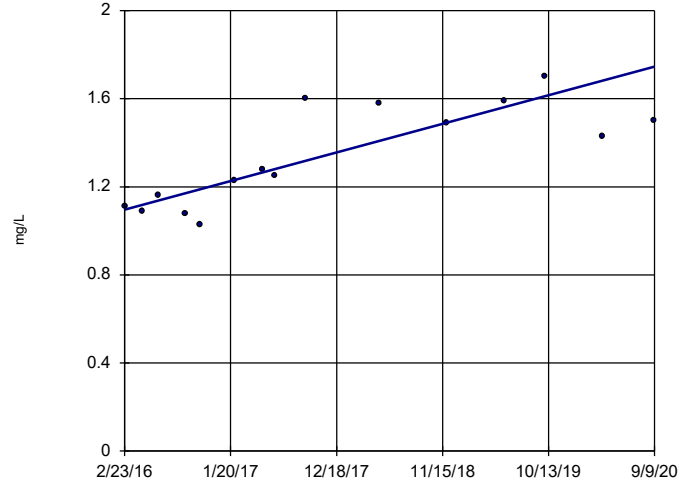
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = 0.1427 units per year.

Mann-Kendall statistic = 61 critical = 53

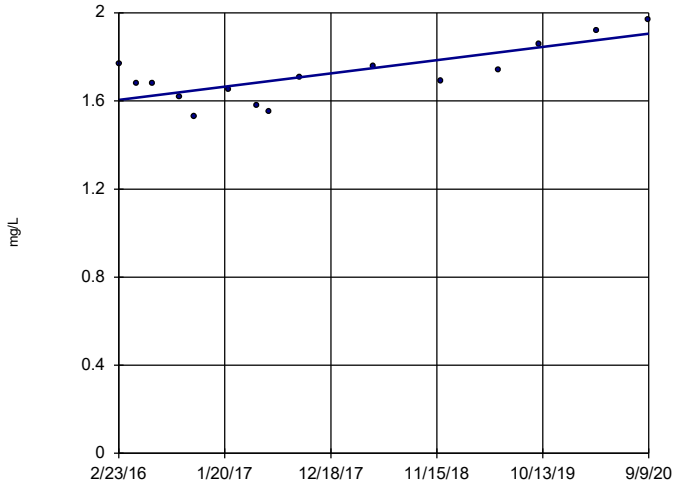
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = 0.06599 units per year.

Mann-Kendall statistic = 44 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

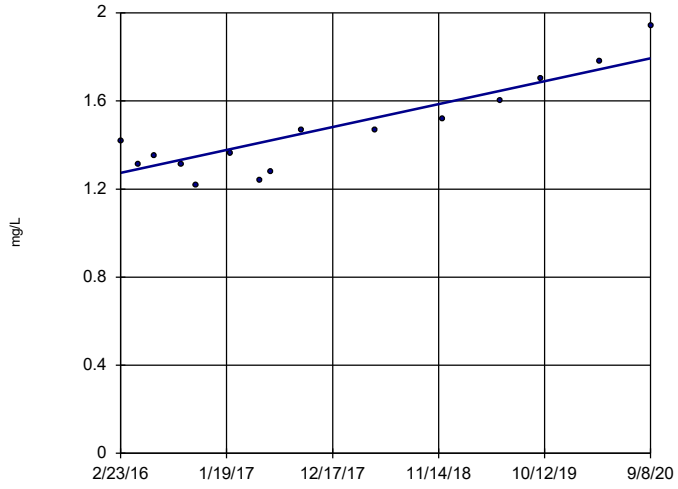
Constituent: Calcium Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = 0.1144 units per year.

Mann-Kendall statistic = 65 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

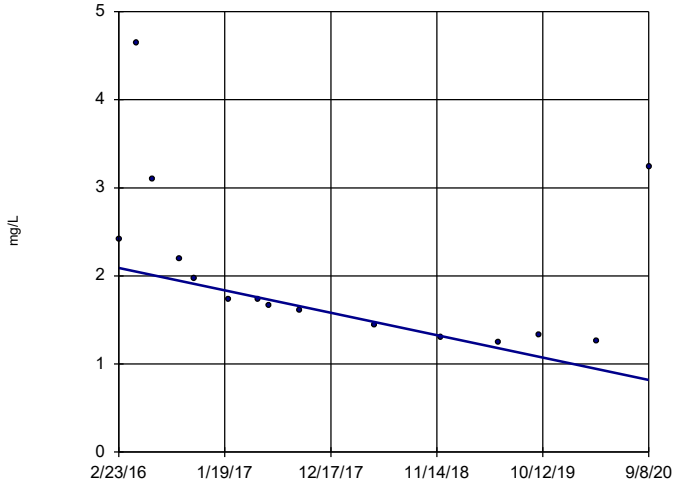
Constituent: Calcium Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-5



n = 15

Slope = -0.2798 units per year.

Mann-Kendall statistic = -67 critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

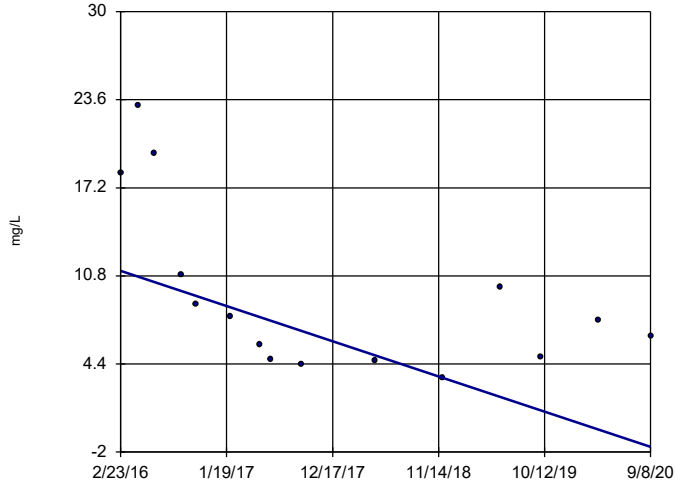
Constituent: Calcium Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 15

Slope = -2.817 units per year.

Mann-Kendall statistic = -53 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

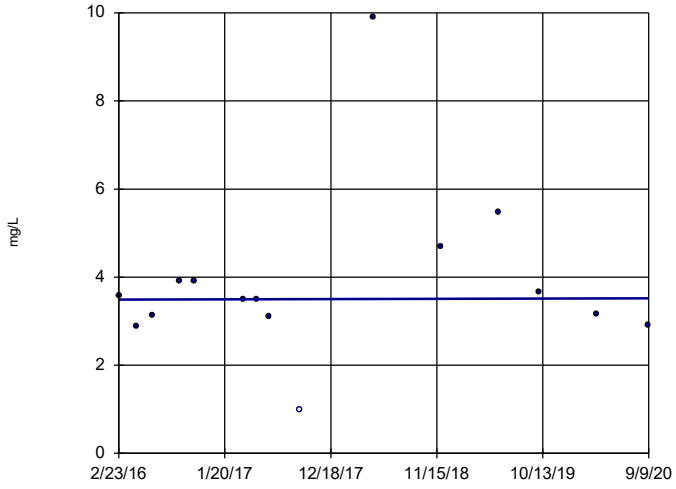
Constituent: Calcium Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 0.006827 units per year.

Mann-Kendall statistic = 2
critical = 53

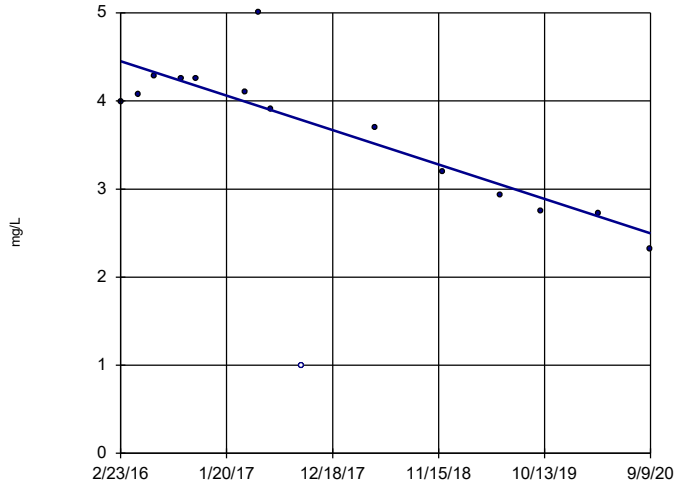
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = -0.4294 units per year.

Mann-Kendall statistic = -62
critical = -53

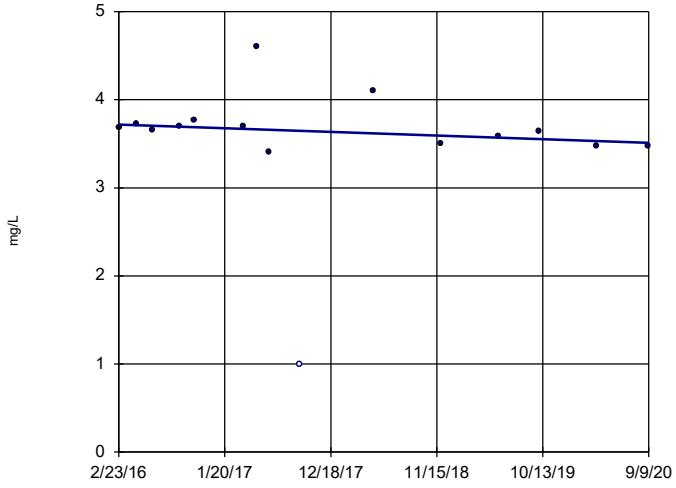
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = -0.04617 units per year.

Mann-Kendall statistic = -31
critical = -53

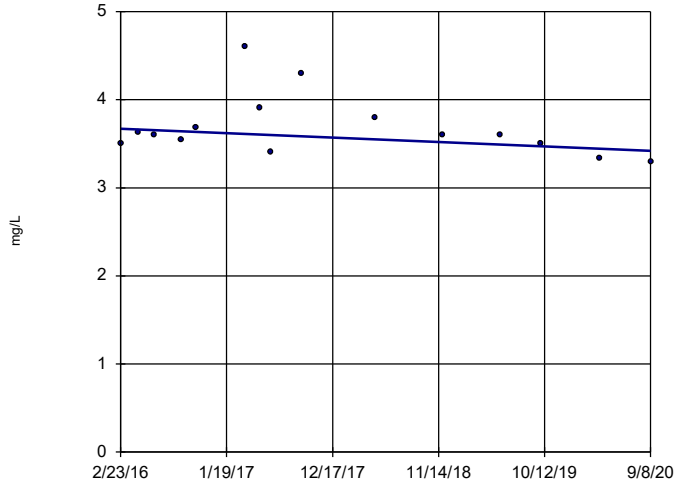
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = -0.05577 units per year.

Mann-Kendall statistic = -27
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

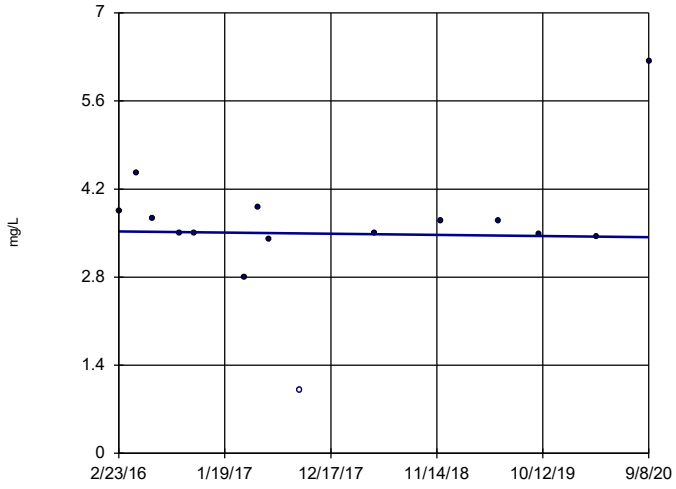
Constituent: Chloride Analysis Run 11/2/2020 11:56 AM View: AIII
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-5



n = 15

Slope = -0.02005 units per year.

Mann-Kendall statistic = -18 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

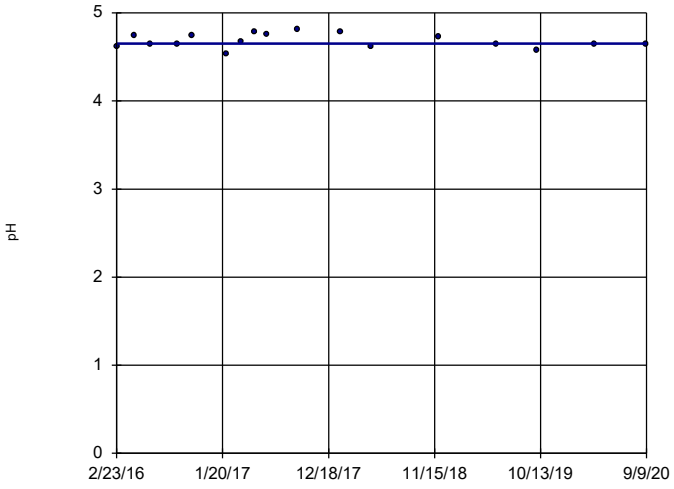
Constituent: Chloride Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 17

Slope = 0 units per year.

Mann-Kendall statistic = -3 critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

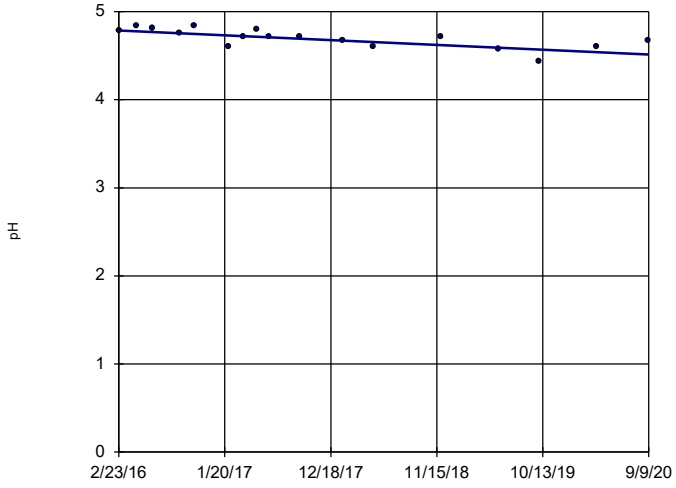
Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 17

Slope = -0.06003 units per year.

Mann-Kendall statistic = -77 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

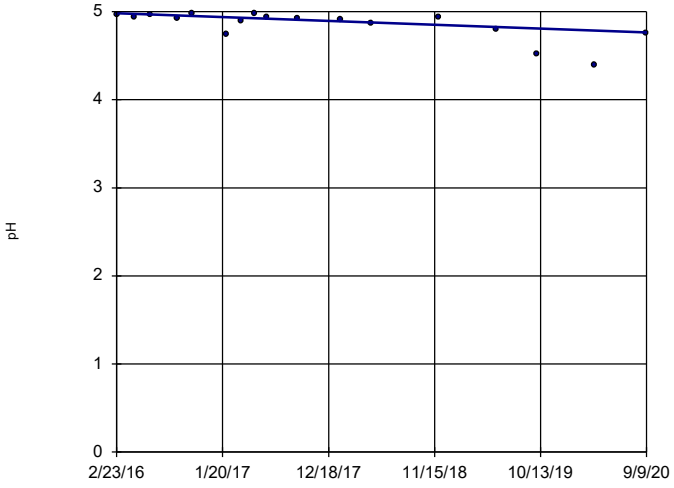
Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 17

Slope = -0.04822 units per year.

Mann-Kendall statistic = -69 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

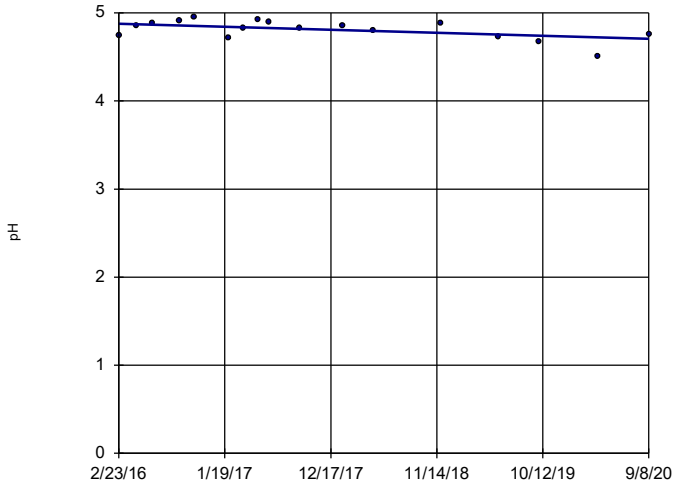
Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 17

Slope = -0.03765 units per year.

Mann-Kendall statistic = -47 critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

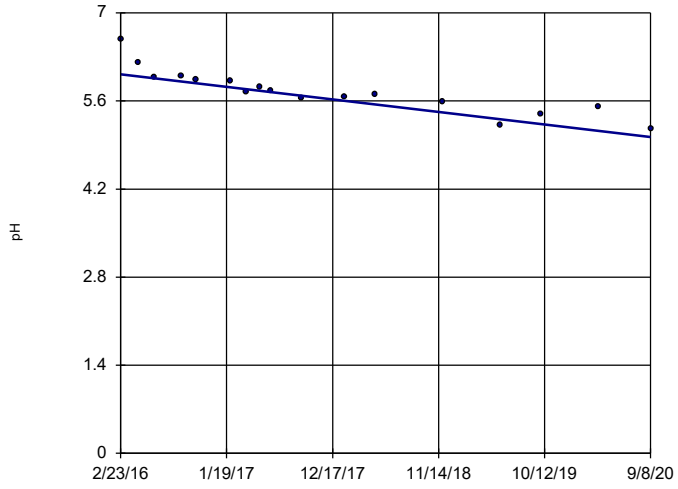
Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 17

Slope = -0.2192 units per year.

Mann-Kendall statistic = -118 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

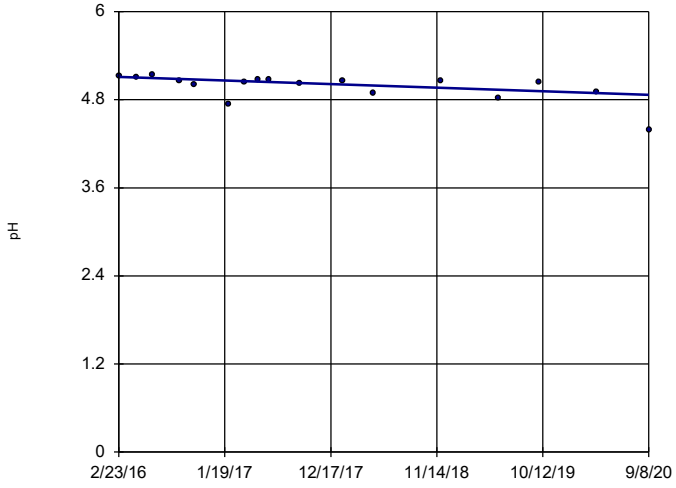
Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-7



n = 17

Slope = -0.05353 units per year.

Mann-Kendall statistic = -68 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

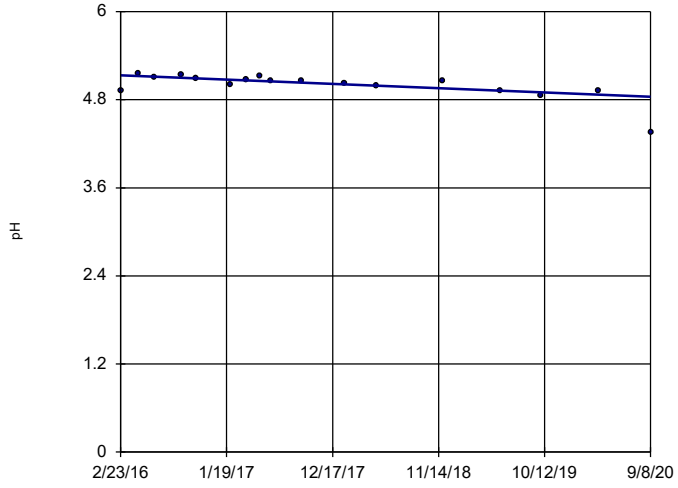
Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-8



n = 17

Slope = -0.06449 units per year.

Mann-Kendall statistic = -78 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

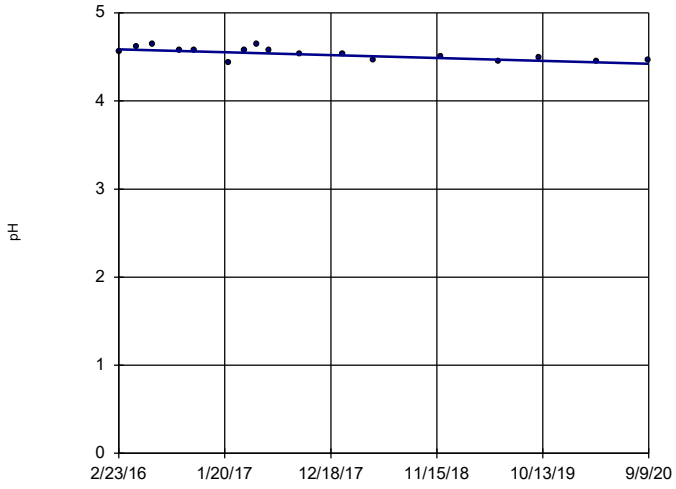
Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-9



n = 17

Slope = -0.0365 units per year.

Mann-Kendall statistic = -72 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 11/2/2020 11:56 AM View: AIII

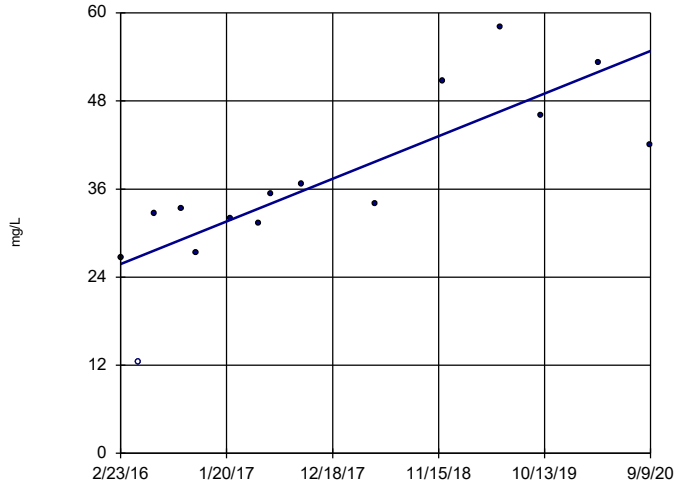
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 6.385 units per year.

Mann-Kendall statistic = 71 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 11/2/2020 11:56 AM View: AIII

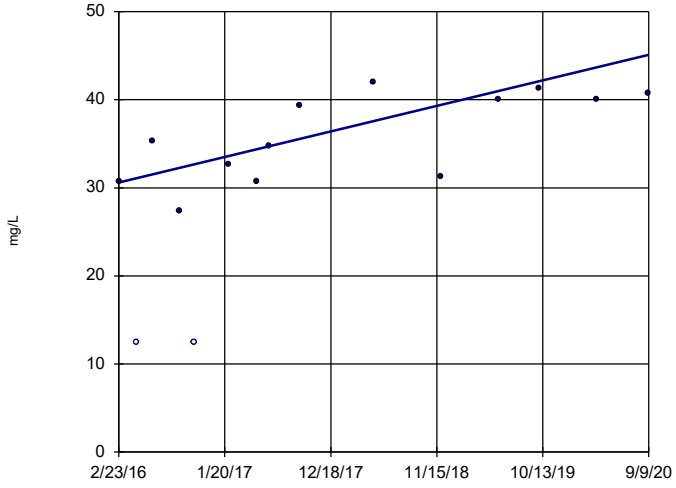
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = 3.19 units per year.

Mann-Kendall statistic = 60 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

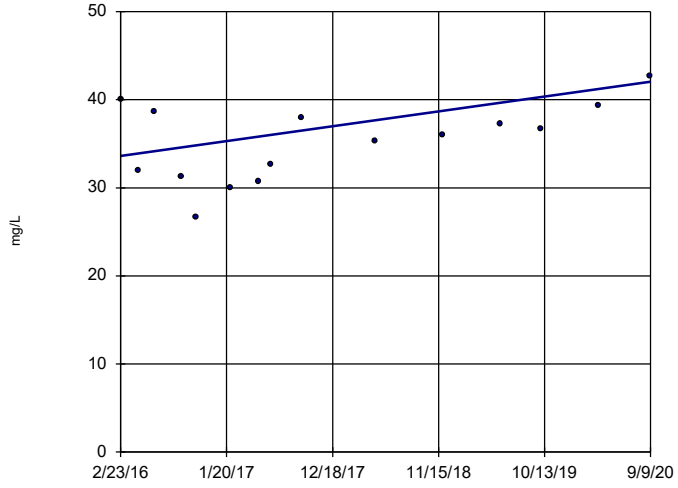
Constituent: TDS Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = 1.858 units per year.

Mann-Kendall statistic = 35 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 11/2/2020 11:56 AM View: AIII

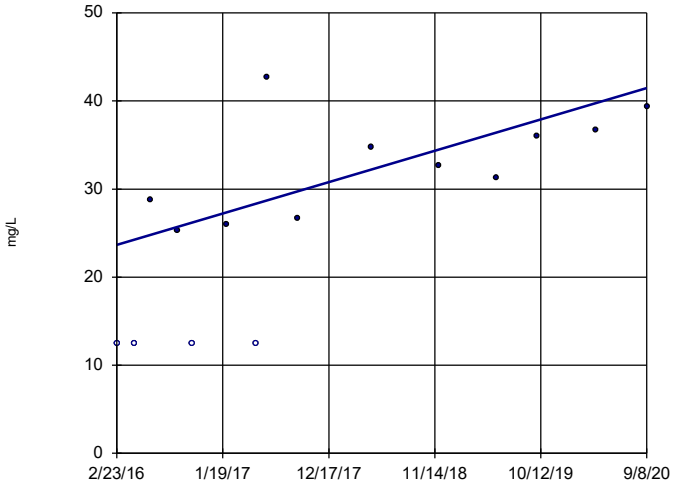
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = 3.921 units per year.

Mann-Kendall statistic = 63 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

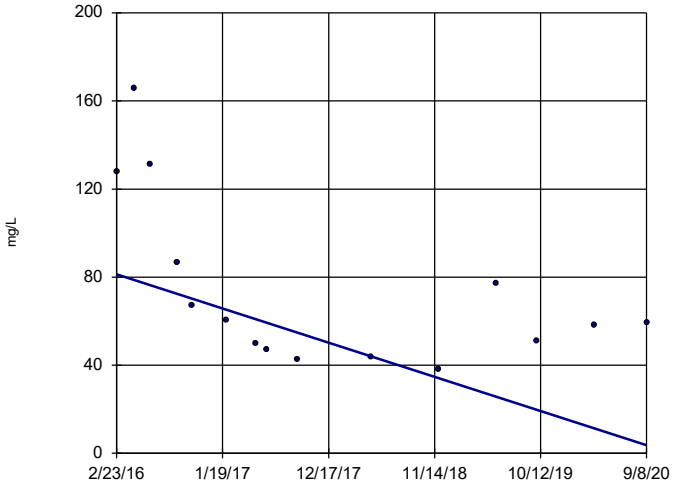
Constituent: TDS Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Sen's Slope Estimator

BY-GSA-MW-6



n = 15

Slope = -17.07 units per year.

Mann-Kendall statistic = -49 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 11/2/2020 11:56 AM View: AIII

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE G.

Upper Tolerance Limits - Appendix IV

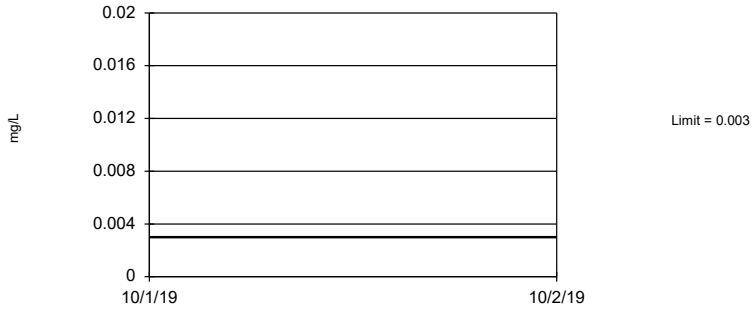
Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/24/2020, 8:10 AM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Barium (mg/L)	0.183	n/a	52	n/a	n/a	0	n/a	n/a	0.06944	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	52	n/a	n/a	96.15	n/a	n/a	0.06944	NP Inter(NDs)
Cobalt (mg/L)	0.0157	n/a	52	n/a	n/a	67.31	n/a	n/a	0.06944	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	3.202	n/a	52	0.9903	0.2355	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.1	n/a	56	n/a	n/a	48.21	n/a	n/a	0.05656	NP Inter(normal...
Lead (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Lithium (mg/L)	0.02	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 90.38% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Antimony Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Arsenic Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

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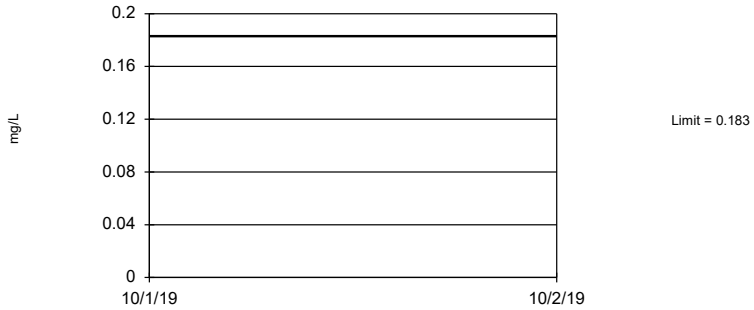
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 52 background values. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

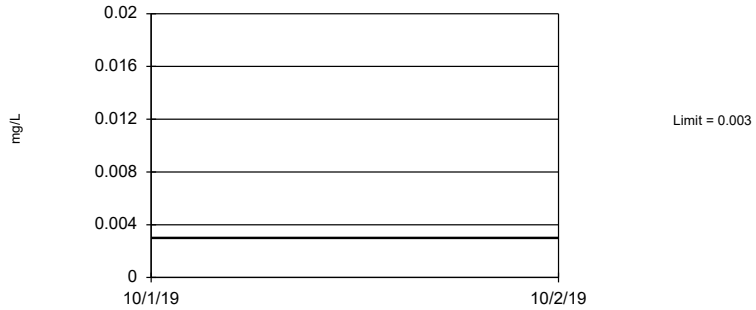
Constituent: Barium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 90.38% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

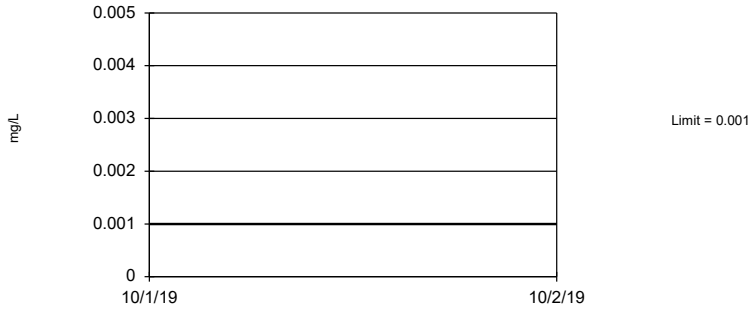
Constituent: Beryllium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Cadmium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 96.15% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Chromium Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 67.31% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

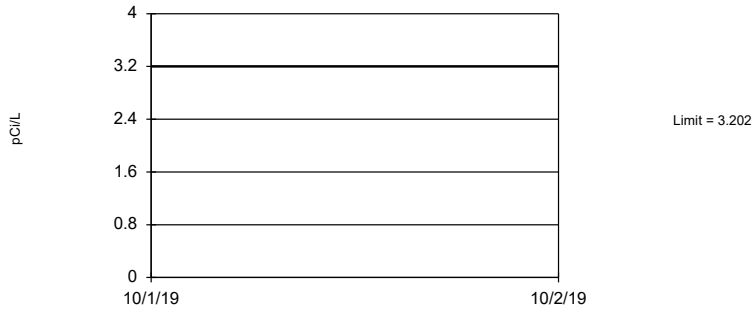
Constituent: Cobalt Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Parametric



95% coverage. Background Data Summary (based on cube root transformation): Mean=0.9903, Std. Dev.=0.2355, n=52. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9388, critical = 0.937. Report alpha = 0.05.

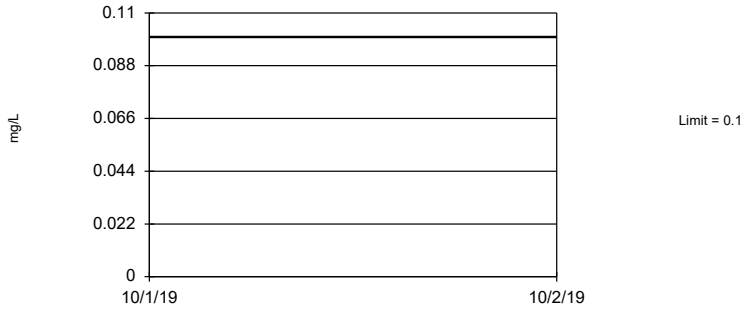
Constituent: Combined Radium 226 + 228 Analysis Run 7/24/2020 8:08 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 48.21% NDs. 91.99% coverage at alpha=0.01; 94.73% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.05656.

Constituent: Fluoride Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lead Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

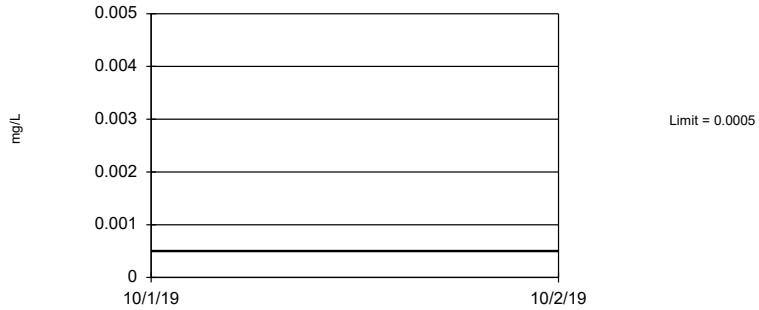
Constituent: Lithium Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Mercury Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Molybdenum Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

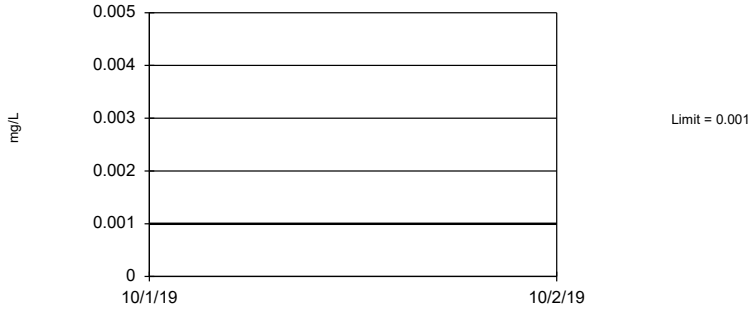
Constituent: Selenium Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Thallium Analysis Run 7/24/2020 8:09 AM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE H.

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

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.

4. GWPS established during second semi-annual sampling event in 2019.

FIGURE I.

Confidence Interval Summary Table - All Results (No Significant)

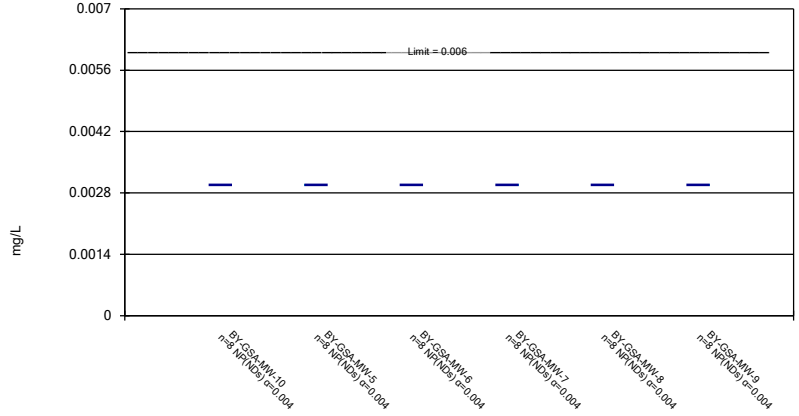
Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 11/4/2020, 1:13 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-10	0.003	0.003	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-5	0.003	0.003	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-6	0.003	0.003	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-7	0.003	0.003	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-8	0.003	0.003	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-9	0.003	0.003	0.006	No	8	100	No	0.004	NP (NDs)
Barium (mg/L)	BY-GSA-MW-10	0.1336	0.109	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.181	0.0684	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.1402	0.0596	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.06456	0.03788	2	No	8	0	sqrt(x)	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.04715	0.03352	2	No	8	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1696	0.1229	2	No	8	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-6	0.003	0.003	0.004	No	8	100	No	0.004	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-5	0.01	0.00221	0.1	No	8	87.5	No	0.004	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-6	0.01	0.00223	0.1	No	8	62.5	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-8	0.01	0.00202	0.1	No	8	12.5	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-10	0.002564	0.002069	0.0157	No	8	0	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.005	0.00227	0.0157	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-6	0.005	0.00296	0.0157	No	8	62.5	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	1.738	0.7361	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	0.8205	0.4005	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	1.58	0.394	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	0.9958	-0.07783	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	0.8061	0.1936	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	2.165	1.123	5	No	8	0	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.1	0.08	4	No	8	50	No	0.004	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-5	0.1	0.1	4	No	8	100	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.1	0.0591	4	No	8	87.5	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-7	0.1	0.1	4	No	8	100	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-8	0.1	0.1	4	No	8	100	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.1	0.07	4	No	8	50	No	0.004	NP (normality)
Mercury (mg/L)	BY-GSA-MW-8	0.0005	0.0005	0.002	No	8	100	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-5	0.01	0.00201	0.05	No	8	62.5	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-MW-6	0.007237	0.002903	0.05	No	8	0	No	0.01	Param.

Sanitas™ v.9.6.27 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



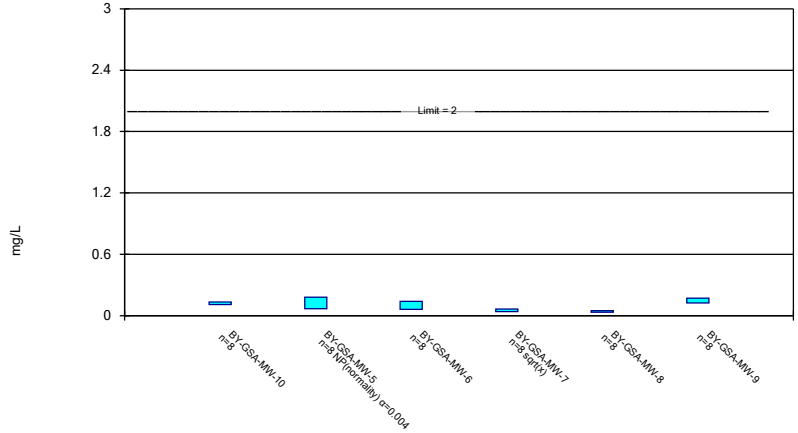
Constituent: Antimony Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . 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.



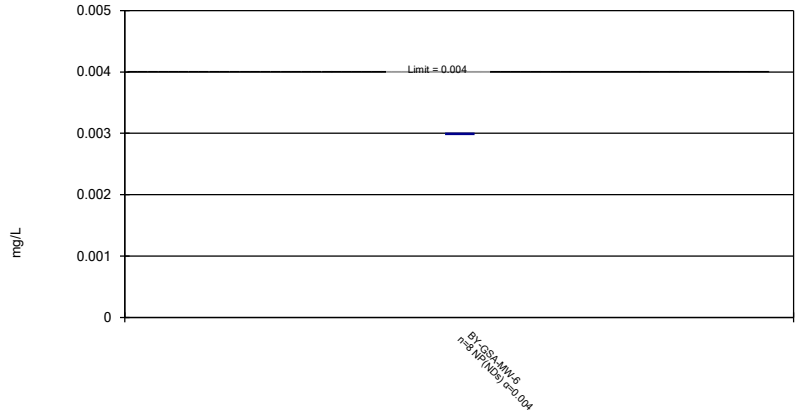
Constituent: Barium Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



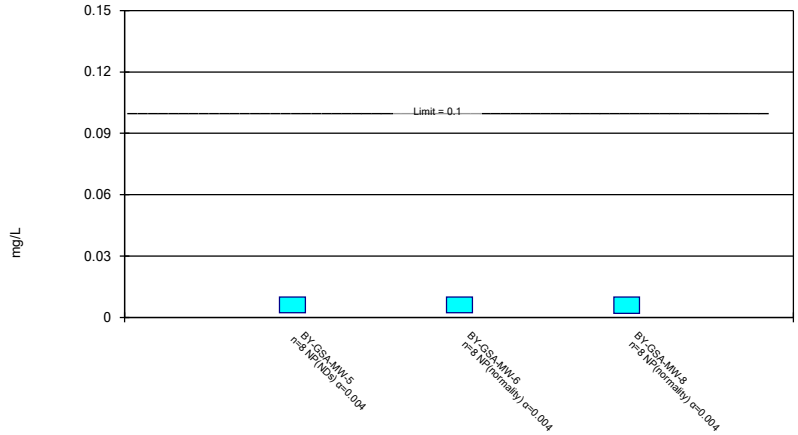
Constituent: Beryllium Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



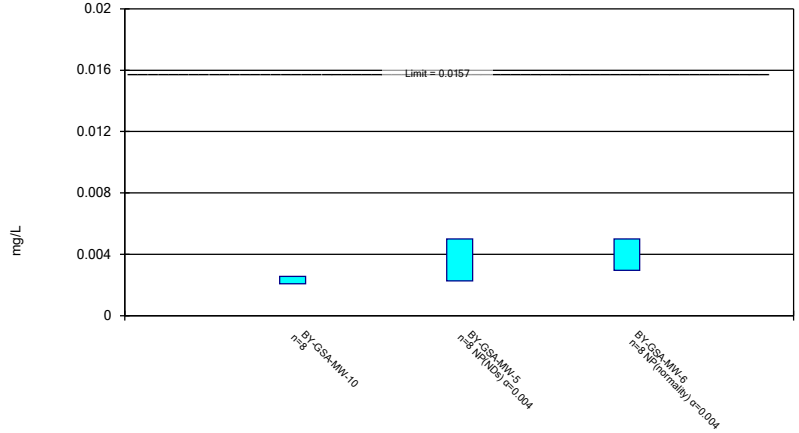
Constituent: Chromium Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . 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.



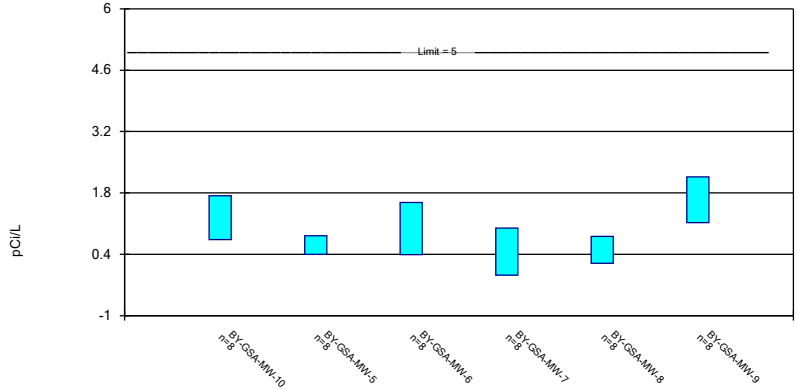
Constituent: Cobalt Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



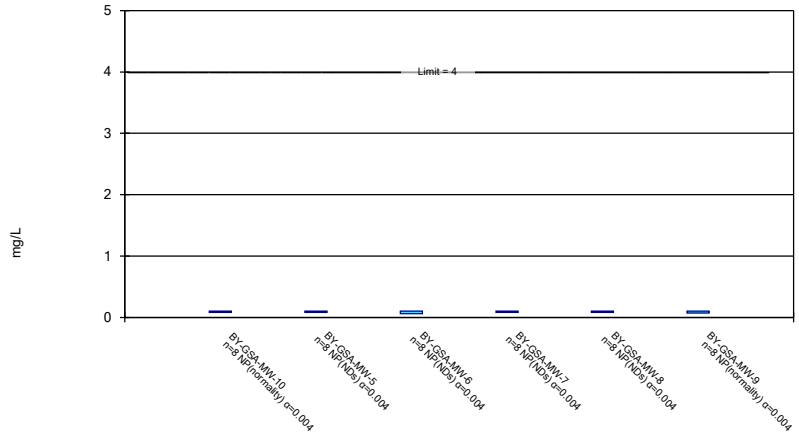
Constituent: Combined Radium 226 + 228 Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



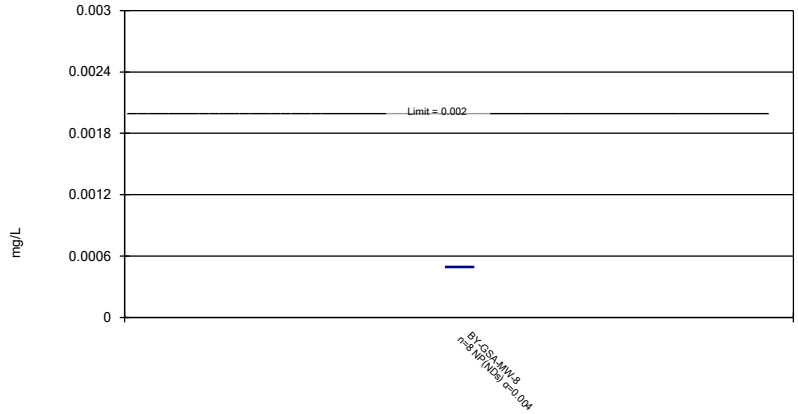
Constituent: Fluoride Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



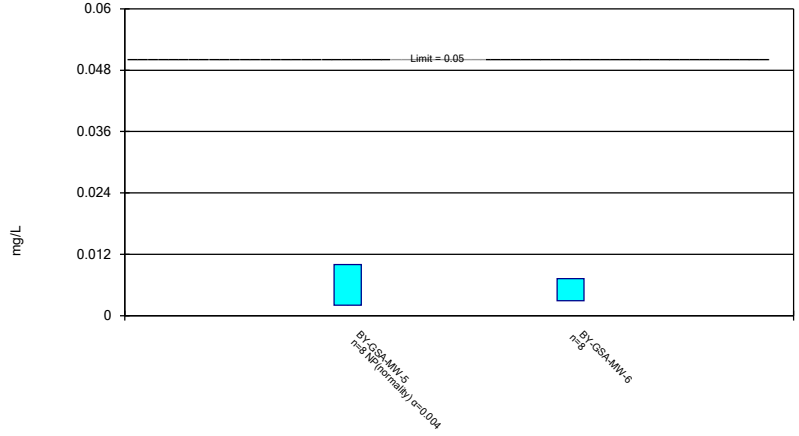
Constituent: Mercury Analysis Run 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sanitas™ v.9.6.27 . 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 11/4/2020 1:12 AM View: AIV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond